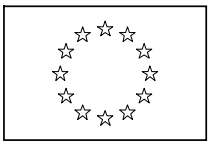

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REPORT FROM THE COMMISSION TO THE COUNCIL, THE EUROPEAN PARLIAMENT, THE ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

SECOND REPORT ON ECONOMIC AND SOCIAL COHESION

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SECOND REPORT ON ECONOMIC AND SOCIAL COHESION

INTRODUCTION

The role of the Cohesion Report

Article 159 of the Treaty states that every three years the Commission should present 'a report on the progress made towards achieving economic and social cohesion and on the manner in which the various means (including different Community policies) provided for in (the) article have contributed to it.' This report is the response to this requirement. Article 45 of the General Regulation on the Structural Funds specifies the contents of the report.

The Commission adopted the First Cohesion Report at the end of 1996. This was the basis for the first Cohesion Forum held in April 1997 and for the proposals contained in 'Agenda 2000 - for a stronger and wider Union,' which led to the reform of cohesion policy adopted by the Council in June 1999.

The Commission has chosen to present the Second Report on Economic and Social Cohesion at the beginning of 2001, which falls immediately after the first phase of the implementation of the reform of the Structural Funds, and after certain key decisions have been taken as regards financial allocations and geographical eligibility for support. It is, therefore, already possible at this stage to make a broad *ex ante* assessment of the possible impact of the reform.

The second Report also contains an updating of the regional analysis contained in the Sixth and last Periodic Report on the situation and development of regions published in 1999. Such an updating is more necessary than before since the Cohesion Reports replace the Periodic Reports which the Commission has published since the beginning of the 1980s.

First analysis of cohesion in an enlarged Union

As the Treaty and the general Regulation on the Structural Funds require, the Report analyses the changes in cohesion and the factors which contribute to it. Without prejudging the timing, the procedures or the order of countries entering, the working hypothesis adopted relates to an enlarged Union of 27 Member States.

So far as the data allow, each part of the Report includes consideration of the situation in an enlarged Union. This should be the context for analysis, rather than in terms of a more static analysis of the respective situation in the present 15 Member States and the 12 countries with which accession negotiations are taking place. An analysis of regional features in Turkey, the 13th candidate country with which negotiations have not yet begun, is included separately. This will be the subject of a more systematic analysis in future reports after negotiations have begun.

Launching the debate

The report develops a set of conclusions and recommendations with a view to opening up a debate on the future of cohesion policy after 2006 in an enlarged European Union. The Commission is convinced that for the future, important changes will be required to a policy which was designed for the present Member States. While enlargement is major part of the explanation for the need for change, it is not the only one in view of the far reaching economic and social and territorial changes affecting the present EU15. These changes are also examined in the report.

The debate which will ensue will involve the EU institutions and agencies, Member States and regional and local authorities, as well as the relevant economic and social interests, non-governmental organisations, universities and other academic institutions. The Commission itself is organising a **Cohesion Forum** in Brussels on 21 and 22 May 2001 to provide an opportunity for the exchange of ideas and discussion of future cohesion policy. The candidate countries will be fully involved in this consultation exercise.

At a later stage, the Commission will set out proposals which will then be presented to the European Parliament and the Council of Ministers for a new cohesion policy to take effect from 1 January 2007.

Synthesis of the report
on economic and social cohesion

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SYNTHESIS OF THE COHESION REPORT

PART I: Situation and trends

A narrowing of income disparities in the EU15

In the EU today, disparities in income (GDP) per head between Member States and, more particularly, between regions, remain considerable. The average income per head of the 10% of population living in the most prosperous regions is, for example, 2.6 times greater than the bottom 10%.

The disparities, however, have narrowed over time. In the three least prosperous Member States (Greece, Spain and Portugal), average income per head has risen from 68% of the EU average in 1988 to 79% in 1999, a reduction of a third in the initial gap. Disparities between regions have narrowed by less, partly because the gaps have widened between regions within certain Member States.

Lower income per head at regional level is associated with lower output per person employed, lower levels of education and training – despite significant progress achieved in recent years - less research and development activity and innovation, as well as a slower pace of introduction of the new information and communication technologies. On the other hand, there has been a marked improvement in relative infrastructure endowment in less prosperous regions, a key factor in their longer-term development prospects.

A step change with enlargement

With the enlargement of the Union, the economic landscape is set to change significantly. An analysis of the situation as it stands today points to a doubling of the income gaps between countries and regions, a doubling in the sense that if a Union of 27 existed tomorrow:

- at national level, over one-third of the population would live in countries with an income per head less than 90 % of the Union average - the current threshold for eligibility for aid under the Cohesion Fund - compared to one-sixth in the present EU15.

- at regional level, the average income per head for the bottom 10% of population, living in the least prosperous regions in EU27, would be only 31% of the EU27 average. In the EU15 today, the income per head of the bottom 10% of population equates to 61% of the average.

At national level, in a Union of 27 the countries separate into three main groups. The most prosperous group comprises 12 of the current Member States of the Union – all except Greece, Spain and Portugal - where income is above average. This is followed by an intermediate group of Greece, Spain and Portugal, together with Cyprus, Malta, Slovenia and the Czech Republic, where income per head is around 80% of the EU27 average, with 13% of the total EU27 population. The real change compared to the Union of today, however, would be the existence of a third group comprising the 8 remaining candidate countries where income per head is around 40% of the EU27 average. This is a significant group accounting for around 16% of the population of the EU27.

As an example, infrastructure in the candidate countries is inadequate in quantity and often of poor quality, while evidence suggests that labour force skills and the kind of education and training provided do not match the needs of a modern market economy. As regards transport, the Transport Infrastructure Needs Assessment estimates the total cost of constructing trans-European networks in these 12 countries at € 90 billion, while several studies put the cost of complying with Community environmental standards at € 50-100 billion, giving an overall amount of € 15-20 billion a year, for the next 10 years, for the two sectors.

In sum, the evidence demonstrates that considerable progress has been achieved in the present EU15 in reducing income gaps between regions, though on past trends it is likely to take another generation before regional disparities are eliminated. Enlargement widens the disparities markedly. Given existing levels of income per head in the candidate countries, convergence between regions in the enlarged Union would take at least two generations if it occurred at the same pace.

Employment: some signs of progress

Employment in the EU15 rose by over 2 million during the 1990s, but this was not sufficient to **significantly** increase the employment rate - the proportion of the population of working age in employment - which remained at just over 60%, well below the ambitious objective of 70% fixed for 2010 by the Lisbon European Council. The average figure, however, conceals substantial differences across the Union. Only 4 Member States had an employment rate in 1999 above 70%, while in Greece, it was only around 55% and in Spain and Italy, even lower. 10% of the Union's population lived in regions where well below half of those of working age were in employment (44%).

Despite strong growth of employment of women, mostly in part-time jobs (one woman in three in the Union works part-time), their employment rate was 19 percentage points below that of men in 1999. All of the employment growth in the Union over the 1990s was in services, the largest increases occurring in the most prosperous regions and in high-skilled jobs. At the same time, because of skill mismatches, labour shortages are beginning to emerge in many regions, especially in new sectors of activity and particularly in information technology.

The persistence of wide gaps in unemployment in the EU15

Disparities in unemployment remain wide in the Union. In 1999, Greece, Spain, France, Italy and Finland had unemployment rates of more than 10%, at least twice the rate in Luxembourg, Netherlands, Austria and Portugal where the figure in each case was below 5%. Regional disparities are much more pronounced: the 10% of population in the worst-affected regions - mostly regions where development was lagging, but some of which were undergoing restructuring - had an unemployment rate in 1999 of 23%, nearly 8 times the average for those in the least-affected regions (3%).

Labour markets in the candidate countries: an incomplete transition

While there are superficial similarities between labour markets in the candidate countries and the EU15 - in 1999, unemployment averaged 10.2% in the former 9.3% in the latter, while the average employment rate was much the same in the two - there are major underlying differences, which are a legacy of the ongoing process of transition. Five key features are worth highlighting:

– women in the candidate countries are continuing to withdraw from the labour market, though participation rates are still higher than those in most parts of the Union;

– employment in traditional industries remains high even after the loss of 25-50% of jobs over the 1990s;

– agricultural employment, at 22% of the total, is 5 times the average for the Fifteen (4.5%), though its importance varies markedly between the countries;

– labour productivity remains lower than in the EU15;

– employment in services has grown significantly, but at a much higher rate in the capital cities than in other parts of the countries.

In sum, the return of stronger economic growth in the second half of the 1990s has generally had favourable consequences for employment and unemployment in the EU15 but the effect in terms of reducing regional disparities in income and employment has been more limited. In the candidate countries, the transition process remains incomplete, with the risk that unemployment could rise in many regions in the period ahead. But the outlook for labour markets in an enlarged Union will be heavily influenced by demographic trends. In the EU15, these will lead to an ageing of the labour force and could result in it declining in number after 2010. In the candidate countries the pattern is broadly similar, but an important feature here is the expected growth in the number of young people aged 20-35. In an enlarged Union, this would be an important balancing factor in an otherwise ageing population and labour force.

Social cohesion and the incidence of poverty: a persistent problem

In 1996, 18% of the population in the Union, or one in six, had income below the poverty level.[1] The countries where the proportion was lowest, Denmark and the Netherlands (11-12%), are also those with income per head above the EU average. At the other extreme, 20-25% of the population in Portugal and Greece had income below the poverty line. The contrast is even sharper in respect of long-term, or persistent, poverty which affects only 3% of people in Denmark and the Netherlands but 12% in Portugal and 10% in Greece.

There are many root causes of poverty and particular groups are especially at risk, including people with low education, old-age pensioners, the unemployed and others not in work, lone-parent families and families with large numbers of children. Many poor families have more than one of these characteristics.

While comparable data for the candidate countries are not yet available, the evidence suggests that rural areas are most affected by poverty.

The territorial dimension: persistent imbalances

The most important territorial imbalance in the Union today is that between the less developed regions and the rest. At the same time, spatial disparities in the Union reflect a more complex reality than indicated by differences in income and employment between regions. This reality has to do with the potential for development and is implicit in Article 158

[1] According to the EUROSTAT definition, which is the proportion of the population with income equal to or below 60% of the median in their own country.

of the Treaty, which refers to the need to promote a harmonious development of the Union as a whole.

For the Commission, and for the Member States, this was the rationale behind the European Spatial Development Perspective (ESDP), which was the first coherent effort to clarify the nature of the major territorial imbalances across the Union as a whole. These imbalances and the need to address them assume an added dimension with enlargement, if only because the land area of the Union will have doubled in relation to the early 1990s once the candidate countries have entered.

High geographical concentration of activity in the Union

Economic activity is concentrated in a core part of the Union situated in the triangle extending from North Yorkshire in the UK to Franche-Comté in France and Hamburg in Germany. While this area accounts for only one-seventh of the Union's land area, a third of the population live there and almost half (47%) of income is produced there. In other comparable economies, like the US, the pattern of activity is more dispersed.

For the EU, this concentration has negative implications not only for peripheral regions but also for the central regions themselves, particularly in terms of traffic congestion and pressure on the environment and health, which could in the long-term offset the apparent advantages.

Urban areas: growth centres for achieving polycentric development…

The concentration of population in central areas is reflected in a high degree of urbanisation and a disproportionately large share of the highly skilled functions associated with the knowledge economy being located there: business headquarters, research installations and the most highly qualified workers. The net result is a level of productivity some 2.4 times higher than in peripheral areas. The counterpart of this concentration is that the Union lacks the kind of polycentric pattern of activity which is undoubtedly a factor in the territorial cohesion of the US, in its less pronounced regional disparities in income and employment and, perhaps, in its competitiveness.

…but with pockets of deprivation

The Union's urban areas, however, are also those where social and economic disparities are most marked and certain districts have high levels of poverty and exclusion. Differences in unemployment and dependency rates, for example, are wider within some cities than between regions in the Union. (The Commission's urban audit identified a number of cities where unemployment varied by a factor of 10 between districts.)

Varying circumstances in the rural areas

The extent of rural areas varies significantly between Member States, from the Nordic countries and Ireland, where two out of every three people live in such areas, to Belgium, Germany and the UK, where only one in eight does.

The population living in rural areas is increasing, if to differing degrees, in all Member States and employment growth is higher there than in the rest of the Union, reflecting their comparative advantages. Equally, however, many remain in difficulty because of their many handicaps.

Border regions: the problems shift eastwards

Border regions, which are home to one in four Europeans, often suffer from problems of accessibility and lack of economic opportunities because of the fracture created by an international frontier. With the creation of the single market, backed by cross-border cooperation programmes supported by European funds, for the most part existing internal border regions no longer show significant differences in income per head and unemployment compared to the Union as a whole. In general, the same applies to those regions in the EU15 bordering candidate countries, although there are important differences between the regions concerned. For these regions, the situation could change in the future, in the sense that they are in the frontline in the more competitive circumstances after enlargement.

In the candidate countries, a significantly larger proportion of the population live in border regions (6 out of every 10 people), than in the Union, the main problem areas being in the east along frontiers with third countries.

Specific areas

Islands and archipelagos, mountain and peripheral areas - including the 'outermost' regions - are an important part of the Union and share many common physical and geo-morphological characteristics and economic disadvantages. These regions generally suffer accessibility problems which make their economic integration with the rest of the Union more of a challenge. Accordingly, a large number already receive EU regional aid - 95% of both mountain areas and islands are covered by Objective 1 or 2. At the same time, their social and economic conditions vary widely and two of the most prosperous candidate countries are islands (Cyprus and Malta).

PART II: Contribution of Community policies to economic and social cohesion

This part of the Report examines the manner to which Community policies have contributed to cohesion, as stipulated in the Treaty (Article 159), and the implications for enlargement of the Union.

1. Economic and monetary integration policies

Economic and Monetary Union

Macroeconomic stability helps to achieve economic convergence

For high rates of economic growth to be sustained in lagging regions of the Union, it is important that structural policies are allied to macroeconomic policies which ensure financial stability. The establishment of a single currency makes the maintenance of such stability easier to achieve.

Over the 1990s, in the run-up to monetary unification, inflation was reduced considerably in the cohesion countries, especially in Greece and Portugal, from well above the EU average to around 2½%. At the same time, growth of GDP was above average in all four cohesion countries in the second half of the 1990s. Nominal convergence was, therefore, accompanied by real convergence.

This tendency was particularly marked in Ireland, while convergence has occurred more slowly in Spain and Portugal and more recently in Greece.

The introduction of the Euro makes differences more transparent and capital more mobile

The introduction of the Euro should lead to increased competition and, therefore, to greater market efficiency. By reducing transaction costs and interest rate differentials, it should lower the price of capital and increase its availability in lagging regions. Capital is likely to flow more easily to areas where the returns are highest, implying that the specific features of different regions will assume more weight in the competition for finance. The least competitive regions will therefore be particularly exposed.

At the same time, regional variations in labour costs will become more transparent, which should help to focus attention on underlying differences in productivity, a major cause of differences in regional competitiveness.

The internal market

The decisions taken in 1988 and 1992 to strengthen the Union’s support to regions with structural difficulties were motivated by a recognition that closer economic integration would not necessarily permit the reduction of regional disparities and could, initially at least, lead to them widening. Cohesion policy therefore sought to help less developed regions benefit from the advantage of European integration and to enable the Union as a whole to fully exploit its growth potential.

The progress achieved towards a more integrated economy, now extending to the applicant countries as well as the present Member States, is reflected, in particular, in convergence of prices across the Union, expansion of trade and growth of direct investment between countries.

The extent of price convergence differs between sectors

In contrast to the prices of manufactures, which have tended to converge across the Union, differences persist for most services, which underlines the local nature of markets in a number of sectors. Convergence towards EU prices also seems to be occurring in the more advanced candidate countries, at least for traded industrial goods.

Significant growth of trade

The EU economy is becoming more integrated into the global economy as well as internally. Closer integration is being accompanied by growing similarity in the composition of trade between Member States.

Trade flows between the Union and the candidate countries have increased markedly during the 1990s, reflecting the progressive move towards a free trade area planned for 2002. The Union already accounts for 60% of total exports of the candidate countries while these account for 10% of Union exports. The composition of trade between the two suggests that they do not compete in the same type of product.

Growth of foreign direct investment (FDI)

FDI is particularly important in some Member States, especially Ireland, Sweden and the Benelux countries. Mergers and acquisitions, which doubled between 1991 and 1999, account for a significant part of this.

Union direct investment in the applicant countries is also growing considerably. Since such flows now amount, on average, to around 5% of the GDP of the recipient countries and some 20% of investment, they have a major impact on their growth and productive potential.

On the other hand, these flows are very small in relation to Union GDP. They seem to be aimed more at supplying the home market than at exporting back to the EU and are, therefore, unlikely to have a depressing effect on employment and wages in the Union.

Tendencies to concentration or dispersion?

A key question concerns the extent to which economic integration is likely to lead to some sectors of activity concentrating in a few regions to exploit economies of scale. In practice, there seems to be a general trend towards concentration in manufacturing, but the extent varies between industries and is occurring at a very slow pace because of the scale of the investment required to change the locational distribution of activities significantly (Ireland and Finland, for different reasons, are exceptions). The risk exists that such a concentration would increase the vulnerability of some regions to external shocks which affect particular sectors concentrated there.

The effects of integration and the need for accompanying policies

The increased competition generated by closer integration and the diminished possibility of protecting local industries are likely to put a premium on technical know-how and to reduce the demand for low skilled workers even further. The response to this should be to raise the levels of education and training of the work force and to orient training towards the skills required in growing sectors. Education policy and active policies for employment and social development therefore have an important role to play in accompanying economic integration.

At the same time, the candidate countries will need to comply with the requirements of the 'acquis' (the body of Community law, including directives, regulations as so on) which is likely to add to production costs and affect the ability of their businesses to compete with those in the present Member States.

However according to the studies which have been carried out, enlargement of the single market to include the candidate countries should have generally beneficial effects for all parts of the Union, especially for those on the two sides of the border between the old and new Member States.

Competition policy

Competition policy improves the functioning of the internal market

State aids provided by Member States have a potentially important effect on the regional distribution of economic activity. In the period 1996 to 1998, they accounted for 2½% of total public expenditure in the Union or over 1% of EU GDP (in other words, roughly the same size as the Community budget as a whole) as compared with 0.45% of GDP allocated to EU structural policies.

The scale of expenditure on them, however, varies significantly between Member States. Although the gap narrowed in the latter part of the 1990s, it is still the case, according to the latest figures, that the more prosperous countries spend more than the cohesion countries, so offsetting to some extent the effect of EU structural policies in the latter.

In an attempt to reduce this negative effect, more objective and transparent criteria were established by the Commission during the course of 1999-2000 for defining eligibility for regional aid. As a result, the proportion of the EU population living in regions qualifying for such aid was reduced from 46.7% to 42.7% and assistance has become more concentrated on the most disadvantaged areas. Nevertheless, because of the decisions made by Member States, it was not possible to achieve a better correspondence between the regions eligible for EU structural support and those assisted by State aids.

2. The Common Agricultural Policy : prices and agricultural markets

Successive reforms have greatly changed the concept of the Common Agricultural Policy (CAP) and the way it works. During the 1980s, the CAP was directed at reducing official prices of agricultural produce and compensating for the effects of this on farmers' income through direct payments (direct aids), the use of which was generalised under the 1992 reform. A new reform with two important strands was introduced as part of *Agenda 2000*. First, official prices were lowered with the aim of strengthening the competitiveness of the sector while ensuring a reasonable standard of living for producers. Secondly, a new framework was established for rural development policy, which became the second pillar of the CAP.

Significant changes in the distribution of expenditure between countries

Accordingly, direct aids and support for rural development have accounted for a growing share of total expenditure on agriculture, while only 29% of spending under the EAGGF-Guarantee went on market support and payments to exporters in 1998 as against 82% in 1992.

The CAP, through market support measures and direct aid in particular, involves large transfers between Member States as well as between sectors of economic activity and between social groups.

In 1998, as in 1993, net transfers were positive for three of the four cohesion countries. Portugal, however, traditionally a low beneficiary, remained a net contributor, despite its share of total agricultural expenditure rising from 0.6% to 1.6%. The change in the scale of net transfers, however, differed between Member States. In absolute terms and in relation to their agricultural area, three Member States (France, Germany and Spain) absorb over half of EAGGF-Guarantee expenditure. On the other hand, if transfers are expressed in relation to agricultural employment, Denmark and Belgium are the main beneficiaries.

But very different regional effects

The level of support to agriculture has increased in relation to the number employed in all regions of the Union, largely because of a continuing fall in employment. Overall, the 1992 reform has not radically altered the distribution of support between regions, although it has increased the amount going to regions producing cereals, oil seed and beef, so to many regions in France, Spain and Ireland. Support to producers is lower in the least prosperous regions.

There remains a marked difference between the southern and the northern regions in respect of the economic size of agricultural holdings. The average size of those located in the 20 regions with the smallest size of holding (all situated in the south) declined by just over 2% between 1993 and 1997. At the same time, it grew by almost 25% in the 20 regions with the largest size of holding, all these being in the north.

3. Horizontal policies

Employment policy and the development of human resources

Although Member States are responsible for developing and implementing employment policies, there is a clear need for coordination, elaboration of common objectives and exchange of information at the Union level. This is the reason why a European Employment Strategy was launched in the Treaty of Amsterdam in 1997, with priority being given to active labour market measures. Its most visible component is the 'Luxembourg process,' within which the 'employment guidelines,' adopted by the Council each year, are translated into 'National Action Plans' (NAPs) in each Member State. These are then evaluated annually in the 'Joint Employment Report,' adopted by the Commission and the Council.

The Luxembourg process

The Luxembourg process is based on four operational pillars: employability of the labour force; development of entrepreunership; adaptability of enterprises and those in employment and support for equal opportunities. The objective of policy is two-fold: to reduce unemployment and increase employment, in part to ensure the long-term sustainability of the European social model. These objectives were confirmed by the European Councils in Lisbon and Nice.

In addition, after the Nice European Council, a process for the coordination of national plans for social inclusion was begun.

Although it is difficult to identify the specific contribution of the Employment Strategy, the favourable employment developments which have occurred in the recent past seem to suggest that a virtuous circle has been created, in which Member State macroeconomic policies of stability and structural reform are an important part.

Regional disparities in employment and unemployment

Labour market performance continues to vary widely between regions, which suggests the need for the development of a regional and local employment strategy.

Labour shortages are beginning to appear in a number of Member States at the same time as unemployment remains high, reflecting the mismatch between the jobs on offer and the labour skills available. This requires action both to raise the level of education and training and to direct it to towards sectors of activity in which the demand for labour is growing, while ensuring that priority is given to groups at risk. Despite the general increase in levels of education, too many young people still leave school without adequate qualifications. There is also a need to reduce the risk of exclusion of those with low skills from the technological revolution. All the NAPs include specific measures aimed at target groups for tackling this problem.

Improvements can be identified in the way Member States address equal opportunities, especially in Finland and Ireland. Nevertheless, more could be done in many countries.

2002: Evaluation and new proposals

In the proposed employment guidelines for 2001, the Commission has focused on achieving full employment, the role of the social partners, continuing training throughout a person's working life and social inclusion. An overall evaluation of the results of the strategy and of the objectives will be carried out in 2002.

Environmental policy

The pursuit of economic and social cohesion and the protection of the environment are complementary objectives. Even though environmental protection may initially increase the costs of production or, more accurately, make them more visible, the effect should not be overestimated. The cost of implementing all the directives on water and waste treatment as well as the measures resulting from the Kyoto conference should amount to only around 0.5% of Union GDP.

Environmental protection should not be regarded solely as imposing costs on the economy, but equally as a means of improving the quality of life, especially in problem urban areas.

Higher costs, but also advantages for least prosperous regions…

In the case of policies on water and waste, which are critical for environmental protection, there needs to be considerable investment to tackle problems in the cohesion countries and the least prosperous regions. The Structural and Cohesion Funds will help cover the cost of this in lagging regions and bring standards up to those elsewhere.

… for the weakest social groups…

The cost of environmental protection, as in the case of implementing the framework directive on water, will sometimes fall on the weakest members of society, because of the transfer of some of the costs involved on to users, notably on to households and farmers, under the 'polluter pays' principle.

The measures involved, however, also contribute to social cohesion, in respect of public health and in terms of the jobs created. Although the likely effect on employment seems modest at the Union level, several tens of thousands of jobs could, nevertheless, be created over the next few years as a result of the directives on water and waste treatment.

…and for the candidate countries

The candidate countries face the same problems as the cohesion countries but to a greater extent, particularly in respect of waste treatment. The Union is already helping to finance the investment required through ISPA and after accession, this will be one of the priorities for the Cohesion Fund.

4. Other Community policies

Research and development

The Community research and technological development policy (RTD) is focused on the pursuit of excellence in order to strengthen the Union's position in relation to its international competitors. In terms of territorial balance, the establishment of a *European Research Area* opens up further prospects for integrating research and regional development.

A more even distribution of knowledge…

By requiring the involvement of partners from several Member States, the Framework Programme helps improving the exchange of knowledge and the joint development of technologies. The proportion of projects involving at least one participant from an Objective 1 region has risen from 27% in 1994 to 41% in 1998. In the cohesion countries, however, participants tend to be located in the centres of excellence in the capital cities or most prosperous regions.

…greater mobility of researchers…

The cohesion countries are well represented in programmes designed to encourage the mobility of researchers, many of whom are given an opportunity to spend time in non cohesion countries'. This, however, should not lead to a brain drain towards central areas, where research is already concentrated, which could compromise balanced territorial development in Europe, a problem which might also arise in the candidate countries.

…and a need for new approaches in disadvantaged regions

It is important to create in lagging regions the proper framework conditions for research and innovation. Improvements in the international career opportunities of young researchers and an increase in RTD resources are not sufficient by themselves to expand their innovative capacity. In these regions, it is important to create more career opportunities for researchers.

Transport policy

The objective of the common transport policy is to ensure access throughout the Union to suitable transport services which respond to user demand.

More efficient use of resources

With the entry of new Member States, there will be an even greater need to use Community resources more efficiently, which means better assessment of alternative projects, increased mobilisation of private sources of finance, greater utilisation of existing capacity, improvements in the quality of service and more respect for the environment. On this last point, new technologies, like intelligent transport systems and intermodal equipment, can radically reduce the negative effects of transport.

The trans-European transport networks

The trans-European transport networks are improving access to remote peripheral regions and islands, opening up border areas through the construction of new routes across natural barriers and achieving a better balance of activity along the coastline.

Community measures need to be aimed at ensuring the mobilisation of public and private organisations and companies to carry out the investment required for constructing the network defined in the 1996 Guidelines.[2] It is also necessary, however, to introduce major modifications to the guidelines. A first step has been made in this direction by including ports in the plans and other changes are foreseen to equip lagging regions and to improve the distribution of the major traffic flows in the Union. There is also a need to tackle the growth of goods transport by road which threatens sensitive areas and already congested routes for long distance haulage, this means putting in place a genuine European freight network, based so far as possible on rail and waterway.

The continued construction of high-speed lines coupled with a trans-European network of airports will provide fast international travel which is essential for reducing the territorial fragmentation of the Union, while the progressive introduction of quality and safety standards harmonised at the EU level is also a major aim of policy.

Trans-European transport networks, therefore, have an important effect on territorial development and regional disparities, as well as on the distribution of activity, the functioning of the labour market and trade flows, as emphasised by the European Spatial Development Perspective (ESDP).

Energy policy

Energy: an important factor in competitiveness and sustainable development

There should be no marked differences between regions in the availability of energy and prices. Despite the efforts undertaken, however, there is not yet a single market for energy in the Union.

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[2] Decision 1692/96/CE.

Common rules for environmental protection are still in embryonic form and their implementation could have positive or negative effects on particular sectors of activity and regions. Sustainable development requires an intensification of programmes for increasing energy efficiency – but also an improvement in the means for managing and controlling atmospheric emissions and the application of market mechanisms to encourage this. There is also a need to introduce legislation which encourages the use of renewable energy sources.

Dependency and the need for diversification

The extent of dependence on external sources is a constraint on development in the Union as a whole. This dependency, which is set to increase if the use of renewable sources and more rational energy use are not encouraged sufficiently, could well penalise lagging regions the most in the event of a supply shock.

Enterprise policy

The Lisbon European Council set the Union the objective of becoming the 'most competitive and dynamic, knowledge-based economy in the world.' To attain such a goal, and to support employment creation, requires entrepreneurship to be encouraged and an environment favourable to change and innovation to be developed.

Enterprise policy is intended to help achieve this objective for the whole of the Union, without distinguishing *a priori* between different areas. Nevertheless, certain measures address problems which particularly affect lagging regions. These include help in accessing risk and start-up capital (especially for SMEs), policies for the diffusion of innovation and entrepreneurial best practice, and support for tourism, often a key sector for the development of these regions.

Common fisheries policy

The Common Fisheries Policy is focused on four major areas: the conservation of fish stocks, the restructuring of the fleet, the organisation of markets and fishing agreements with third countries. While the sector is small relative to the EU economy as a whole (accounting for only 0.2% of GDP and 0.4% of employment in 1997), concentration in coastal and peripheral areas (including the outermost areas) gives it a particular importance for regional development. These areas are in many cases disadvantaged, 70% of fishermen and 60% of total employment in the sector being located in Objective 1 regions in 1997.

Because of this concentration, many of the measures supported by the Common Fisheries Policy, which are intended to strengthen the competitiveness of the sector, contribute to economic and social cohesion, particularly fishing agreements with third countries as well as measures on fish farming and processing.

The restoration of a sustainable balance between fish stocks and fishing will necessitate a significant reduction in capacity, catches and the number of fishermen. Accompanying social and economic measures to maintain employment in areas dependent on fishing and their viability (restructuring within and outside the sector, vocational retraining, and so on) will become increasingly necessary. This is the aim of the Financial Instrument for fisheries Guidance (FIFG).

PART III: Economic and social cohesion policy: the results

Over the ten years since the reform of the Structural Funds, significant progress has been made in terms of convergence and cohesion in the Union.

Impact of structural policy since 1989

Increased financing

The finance made available through the Funds almost doubled between 1989 and 1999, rising from 0.27% of EU GDP to 0.46%. The transfers were most pronounced in the cohesion countries, the main beneficiaries, equivalent to over 10 years to 1.5% of GDP in Spain, 3.3% in Portugal and 3.5% in Greece. In Greece and Portugal, Community transfers represent over 10% of investment.

Increased financial and geographical concentration

Following the decisions taken by the Berlin Council in the perspective of the first stages of enlargement, the amount of finance allocated to cohesion policy in the present 15 Member States will be reduced by 2006 back to the level in 1992 – 0.31% of GDP of the present EU15.

The concentration of finance in lagging regions will, nevertheless, enable the average amount of aid per head to be maintained for the period 2000 to 2006 at the same level as in 1999. Overall, 60% of the total of the Structural and Cohesion Funds will be allocated to Member States, which, together, account for no more than 20% of EU GDP and 70% will be concentrated in lagging regions.3

The geographical concentration of Structural Fund intervention on the regions most in difficulty has never before been as high, only 41% of the EU15 population living in regions eligible under Objective 1 (lagging regions) and Objective 2 (regions undergoing restructuring) in 2006. Nevertheless, concentration is limited, on the one hand, by the high degree of fragmentation of areas eligible under the new Objective 2 and, on the other, by the lack of coherence with the map of State regional aids.

The impact of structural policies: positive but uneven effects

Between 1988 and 1998, the difference in income per head between Objective 1 regions and the EU average narrowed by one-sixth, GDP per head in PPS in the former increasing from 63% of the average to 70%. Within this general trend, a number of regions, in particular those in Ireland, the new German Länder and Lisbon, have performed better than the average. Nevertheless, rates of employment and unemployment at the regional level have shown little sign of converging.

In the case of Objective 2 and 5b regions, available data seem to indicate that employment and unemployment tend to have changed in a more favourable way than in the rest of the Union. In particular, the average unemployment rate in Objective 2 areas declined by 2.2 percentage points over the period as compared with 1.3 points in the Union as a whole.

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3 Regions where GDP per head is below 75% of the EU average.

Over the period 1989 to 1999, structural intervention had a significant effect in Greece and Portugal, GDP at the end of the period being an estimated 9.9% higher in the former and 8.5% higher in the latter as result of intervention. The effect was less in Ireland (3.7%) and Spain (3.1%), the Structural and Cohesion Funds forming a smaller proportion of GDP there. This significant contribution to growth was accompanied by more limited effects on the level of unemployment especially in Ireland and Spain.

Strengthening factors underlying competitiveness

The Structural and Cohesion Funds do not only stimulate demand by increasing income in the regions assisted. By supporting investment in infrastructure and human capital, they also increase their competitiveness and productivity and so help to expand income over the long-term. Structural intervention, therefore, tackles the root causes of regional imbalance and is aimed at strengthening the factors which provide the basis for sustained growth. Improving systems of transport, supporting SMEs, RDT and innovative capacity, strengthening education systems and improving the environment have, therefore, been the main focus of intervention.

Transport infrastructure has expanded significantly, investment co-financed by the Structural and Cohesion Funds achieving time savings of, for example, 20% in Spain, through an improvement in the motorway network, and 70% in Portugal in the case of rail freight.

Around a sixth of firms located in Objective 1 regions were recipients of support to SMEs, creating over 300,000 new jobs. In the case of Objective 3, the rate of placement of people who had followed a training programme varied between 25% and 50% according to the country and the groups targeted.

Improving employability in the Union

While the human resource measures taken under Objective 1 have contributed to the development of the regions concerned, those taken under Objective 3 have helped young people, the long-term unemployed and those threatened by exclusion to find employment. However, the modest scale of Community funding in relation to national expenditure has often weakened the specific targeting of measures in a context in which national employment priorities tend to take precedence. Although co-financed measures tend to be more effective the more they are concentrated on those who have the greatest difficulty finding employment, targeting on the most vulnerable groups has remained limited. Nevertheless, over the period 1994 to 1999, the placement rate of recipients who participated in training measures increased, the rate varying between 30% and 80%. As regards Objective 4, which had a slow and difficult start, some of the evaluations undertaken suggest that the benefits were divided between an improvement in the competitiveness of firms and an increase in the skills of some categories of worker.

Community Initiatives: their cross-border and transnational nature increases the added value for the Community

Community Initiatives have enabled a common approach to recurring problems in the Union to be developed. The development of cross-border and transnational cooperation, under INTERREG, and the strengthening of partnership at local level, which is a feature of LEADER and URBAN, are of most significance in terms of Community added value.

Structural Funds procedures : increased efficiency of public intervention

Medium-term strategic programming has had a significant influence on national and regional development policies.

The Structural Funds have also helped spread the use of evaluation of public intervention and of linking the results achieved more clearly to the finance allocated. The advances made in this respect, however, vary between Member States.

Community assistance is an effective means of mobilising private capital as well as loans, especially from the European Investment Bank, as witnessed by major infrastructure projects in Greece.

The principle of partnership has enabled local elected representatives, social and economic organisations, non-government organisations and associations to be more involved in decision-making. However, apart from the formal respect for the obligation, the extent of partnership in practice has differed greatly.

Financial procedures have often proved complex and a source of payment delays.

Prospects for the 2000-2006 programming period

A renewed effort to ensure the added-value of Community intervention

With the new regulatory system for the 2000 to 2006 period, the Commission has attempted to increase the added-value of Community intervention and to improve its visibility on the ground. Four elements are worth highlighting:

– a better formulation of Union priorities with the adoption by the Commission of guidelines for Structural Funds intervention, even if these guidelines remain 'indicative' at the request of the Member States;

– the obligation, as clearly indicated in the legislation, to mobilise partnership at different stages of the programming process ;

– the formulation and diffusion of ideas on Community policy, notably through the establishment of the European Spatial Development Perspective (ESDP), published in 1999 ;

– taking into account the employment strategy, to reinforce and to improve job quality.

Prospects for Objective 1 regions

Because of the slight reduction in assistance in relation to the preceding period decided by the Berlin European Council, the effect of structural intervention on economic growth will be smaller than in the past, especially in Spain, Portugal and, above all, in Ireland. The effects on investment, however, will remain significant, especially in Portugal and Greece, giving rise to long-term gains in productivity.

In other Objective 1 areas, especially the new German Länder and the Mezzogiorno, the effect of the Structural Funds on the supply side should be significant, though smaller than in the previous period.

A strategy focused on the factors underlying competitiveness

The Community guidelines have made it possible to adjust the focus of regional development strategies for the 2000 to 2006 period. In general, there is increased emphasis on structural factors underlying competitiveness which determine the long-term growth of Objective 1 regions, in particular, research and innovation, information technology and human capital.

Other modifications involve, for example, an improved balance between means of transport in favour of rail, a reduction in direct payments to firms and greater attention given to environmental considerations and sustainable development in the formulation of policy, to urban areas and to equal opportunities.

The challenge of more effective management

The role of evaluation was strengthened by the 1999 reform, especially through the introduction of the performance reserve which will be allocated in 2003 on the basis of the results of the mid-term evaluation. Evaluation has, therefore, become a management instrument in its own right.

It is premature to draw lessons from the simplification resulting from the new regulatory system. Indeed, the process of approving programmes by the Commission has not yet been completed. The Commission's role has been refocused on the strategic aspects of programming. Accordingly, in the negotiations with the Member States and regions concerned, it examines the priorities proposed particularly carefully while decentralising implementation largely to the Member States and the relevant administrative authorities.

A first assessment of the effects of decentralisation will only be possible after a few years. The focus of this should be on verifying whether decentralisation has benefited Member States and regions and on identifying the measures which need to be taken in order further to increase simplification in programming and management.

CONCLUSIONS AND RECOMMENDATIONS

Introduction

The evidence examined in this report shows that over the previous programming periods (1989-93 and 1994-99) Community cohesion policies have had some notable success. This is perhaps most visible in the case of the regions where development is lagging behind, where there has been a general process of catching up in economic and social terms.

At the same time, looking ahead to the next period of Community regional polices, after the end of the current planning period in 2006, the analysis in this report suggests the need to take particular account of:

– the important increase in social, economic and territorial disparities resulting from enlargement;

– the far-reaching effects of ongoing social and economic trends such as globalisation, the radical transformation of the European economy towards knowledge-based activities, the changing structure of population and so on.

In addition, a future reform of cohesion policies should take the opportunity to increase the added value and the visibility of Community policy. Ideally, reform should be accompanied by a strengthening of the effort to ensure that the other Community policies contribute to cohesion as much as possible, consistent with the pursuit of the objectives which they are principally designed to achieve.

Drawing on the analysis of the report, the following sections attempt to set out the main issues to be addressed in order to prepare the basis for a debate on the future of cohesion policies. Here, it is important to place the main issues in their correct logical order. Past experience of reforming cohesion policy reveals an increasing tendency for discussion at Member State (Council) level to concentrate on financial aspects. For example, in the negotiations on the financial perspectives for 2000 to 2006 (‘Agenda 2000’), discussions on cohesion policy probably focused more on the amount and division of funding between Member States than on the content of the policy. Arguably, a more logical order would be to begin with the content - and, in particular, to identify priorities for future cohesion policies - before going on to address issues relating to the delivery system and financial allocations.

Promoting the factors determining convergence

To remain credible, Community cohesion policy must support those actions that are most likely to contribute to the reduction of the economic, social and territorial disparities in the Union. A system based simply on fiscal transfers is not enough and the Union must support the factors that play a decisive role in promoting competitiveness and help to reduce the profound imbalances affecting its territory. In short, supporting investment in physical and human capital must remain the key objective of Community cohesion policy before and after enlargement.

Beyond this broad statement, it is not easy to identify the priorities, especially in the longer-term perspective of the period post-2006. For example, a decade ago few could have imagined the role and significance that the new information technologies would assume in today’s economy and society. Today, it is difficult to imagine an economic and social development strategy which would not have the promotion of these technologies as a major component. In

spite of the difficulties, there are, at the same time, certain points of reference for considering future priorities.

In general, it is evident that the level of productivity is a key factor in the process of growth and the convergence, in real terms, of national and regional economies. Productivity is determined to a major extent by the quality of human resources, physical infrastructure endowment and the capacity for innovation.

The quality of the labour force is determined, in part, by the level of education and, in part, by the updating of knowledge and skills throughout working life. The evidence suggests that matching the available skills of the work force with those required by an economy undergoing fundamental change has become a major problem. The demographic outlook, and its likely consequences in terms of falling numbers in the labour force in the next decade in the EU15, can only add to this problem, although the demographic imbalances are less marked in a Union of 27 in view of the rising numbers of young people in the candidate countries. Making the best use of all its human resources is clearly a major long-term challenge to the Union.

An adequate endowment of physical infrastructure of a high standard remains a necessary condition for economic development. Within the Union, while the regional gaps have closed in certain sectors such as telecommunications or road transport, more remains to be done in others (for example rail transport, centres of research, etc), especially in the least developed regions. In the candidate countries, the information is incomplete but the assessments available at present point to major gaps in key economic infrastructures. Priority needs to be given to promoting the development of the major trans-European networks in transport, telecommunications and energy and their connection with regional secondary networks.

Investment in knowledge and in new communication technologies is likely to continue to be the basis of long-term growth in Europe. This is a positive factor for the Union as a whole, although the new activities associated with the knowledge society are tending to concentrate in certain urban centres giving rise to a dense network which inter-connects the economies of Europe's central heartland. In order to avoid a widening of the imbalance between centre and periphery, a long-standing feature of the EU15, ongoing investment in the new technologies will be needed in order to link the peripheral regions into the major European networks, including the 'new periphery' resulting from enlargement to the East and South. Moving to a knowledge based economy and society depends also on an integrated approach combining the various dimensions of knowledge: education, training, research and development, innovation and the information society.

Finally, strengthening the capacity to innovate requires a greater focus on the environment in which businesses operate. In particular, there is a need to improve the interaction between firms, especially small firms, and research centres, universities and public bodies.

A key reference point for future actions: environment and sustainable development

Efforts to raise productivity and promote growth for one generation must not, however, be at the expense of the next. In other words, the *development path followed must also be a sustainable one*, a general point which needs to be reflected in all investment decisions.

A key consideration is that economic development can only be secured in the long-term by the prudent use of natural resources. In this regard, the availability and quality of water are particular problems in the Mediterranean. Cooperation between countries is one way of

addressing water problems but certainly not the only one. Investment in waste water treatment, water pricing, environmental control of emissions into the water are others.

In addition, it is important to encourage investment which serves to limit the damage which industry, agriculture and households can do to the environment, which means, in particular, the construction of facilities for treating wastewater and household and industrial waste. Investment in this area is a priority in the candidate countries.

Identifying priorities for economic and social cohesion

According to the Treaty, the Community must act 'to promote overall harmonious development' with the particular aim of 'reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions or islands, including rural areas' (Article 158).

Based on the analyses in the report with regard to the long-term problems as well as the opportunities, facing the Union, it is possible to identify certain priorities with an economic, social or territorial dimension for future cohesion policy.

Among the priorities which have an important ***territorial dimension,*** the following are suggested for illustrative purposes:

- **The least developed regions.** This remains the principal priority of EU cohesion policy and the analysis of the report confirms that there are major gaps in income and opportunity between the least developed regions and the rest of the Union, although a process of gradual convergence is discernible within the EU15. With enlargement, however, the gaps widen once again.

    – With the reduction of gaps in endowments in certain types of infrastructure in the less developed regions of the EU15, less emphasis will need to be placed on basic investment and more on raising business competitiveness. Basic infrastructure needs remain considerable in the candidate countries.

    – The challenge for all of these regions in an enlarged Union is one of creating an innovative environment based around a qualified workforce, research and development and the information society.

    – Even if the human resource gaps are closing, eliminating the weight of the past in terms of the low level of qualification of the adult labour force is a long-term challenge in the EU15. In the candidate countries, the challenge is to adapt rapidly the workforce to a modern market economy.

- **The urban question**, which is at the heart of economic, social and territorial change. Cities are a key location for the pursuit of a strategy for cohesion and sustainable development.

    – Many kinds of disparity are concentrated in cities, where problem areas in which exclusion and deep poverty prevail are in close proximity to areas of high prosperity.

    – It is in the urban areas where the environmental pressures are the most acute.

– Cities are economic centres for the development of the surrounding suburban and rural areas.

– Networks of large cities can stimulate a more balanced and polycentric form of development in which medium-sized towns and cities can play a key role.

- **The diversification of rural areas.** These areas continue to experience large-scale changes. Their future depends in large measure on their links with other areas, including towns and cities.

  – Agriculture is no longer a major source of employment though it continues to be the main user of rural land as well as the key determinant of the quality of the countryside and the environment.

  – The revitalisation of rural areas and the maintenance of population depend on the development of new activities outside agriculture, notably in services.

  – Cohesion policy must play the major role in the diversification of the rural economy, complementing rural development policies financed by the CAP which is focused on adapting agriculture to new economic realities as well as on strengthening the competitiveness of rural areas.

- **Cross-border, transnational and interregional cooperation.** This is a priority *par excellence* for the Union in order to promote integration and reduce the economic and social fragmentation created by national borders. The internal market and cross-border cooperation have enabled border regions to become more integrated with the rest of the Union.

  – The internal border regions of the EU15 have, with the support of INTERREG, developed new forms of cooperation which the elimination of frontiers alone would not have been sufficient to create. Their social and economic situation has improved significantly over recent years, with closer integration into the internal market.

  – With enlargement, there will be a renewed need for cross-border measures to promote cooperation between the candidate countries and the Union, as well to assist the regions within the candidate countries that share common frontiers with third countries to the east and to the south, including the Mediterranean rim.

  – The Union should promote transnational cooperation areas, within a framework adapted to the development of networking between regional and local economies and to new forms of administration.

- **Areas undergoing industrial restructuring.** The return of sustained growth across the European continent has to some extent hidden the often serious territorial and regional effects of industrial restructuring.

  – Job losses are continuing in many industries such as textiles, cars, coal and steel production, as well as some service sectors. In this regard, the liberalisation of trade in 2005 for textile imports represents a particular challenge.

– Where such sectors are concentrated geographically, there can be severe consequences for the local and regional economy, with the need to promote new opportunities and the retraining of workers who lose their jobs.

– While encouraging economic diversification, territorial policy should also take account of the distribution of activity across the different parts of the Union.

- **Areas with severe geographical or natural handicaps**. In certain parts of the Union, efforts to achieve full integration with the rest of the European economy run into difficulty because of particular geographical or natural handicaps.

  – These areas – outermost regions, islands, mountain areas, peripheral areas, areas with very low population density – are often a key component of the Union's environmental and cultural heritage.

  – There are often acute difficulties in maintaining population.

  – Additional costs for basic services including transport can impede economic development.

Among the priorities under economic and social cohesion policy relating to **employment and social** policy, which have both a general and regional dimension, are:

- **More and better jobs**. the rate of job creation in some parts of the Union remains low, while significant skill gaps persist to constrain economic and social convergence between regions.

  – A more strategic approach to employment policy across the EU could provide a valuable framework for coordinating Community intervention. Negotiations over current ESF programmes have demonstrated the value of a strategic dimension as provided by the European Employment Strategy.

  – Employment policy needs to adopt a proactive approach to anticipate the effects of industrial change.

  – There needs to be more targeting on the specific requirements of both individuals and particular regions, given that a major factor underlying disparities in prosperity across the Union is the difference in the qualifications and skills of the labour force.

- **Supporting the New Economy and the Knowledge Society**. The impact of the new economy is far-reaching in terms of both the pace of change and its consequences for policy. The dangers of an emerging digital divide highlight the need to tackle risks of exclusion from the information society.

  – Life-long learning is an essential response to economic change. It is important, however, that access to this is not confined to those already in the most highly qualified jobs.

  – There must be a more affordable access to the tools of the information society accompanied by ICT literacy.

- Over the past three decades, the level of educational attainment in the Union has increased markedly, especially in the least developed regions. But there remains scope for improvement in their education and training systems to reduce the emerging digital divide. This applies also to the candidate countries where vocational training systems in particular are often poorly adapted to the needs of new sectors.

- **Promoting social inclusion**: The level of poverty and social exclusion remains unacceptably high in the European Union. Many of the causes can be traced directly to the labour market and to the failure of policy to address the needs of those without the skills necessary to compete for jobs.

  - Better access to the labour market, creation of new employment opportunities and skill development are of major importance in the fight against social exclusion.

  - In order to address the deep-seated problem of pockets of social exclusion, labour market policies are becoming increasingly localised, involving broader local partnerships and responding to specific local needs. Local employment development, the 'third element' in the European Employment Strategy, could be strengthened in future Community policy.

  - The concept of policy additionality (extending or deepening national policy) must be applied to social inclusion policies and could be supplemented with the concept of '*policy territoriality*' aimed at increasing the spatial concentration of scarce resources to achieve a greater impact.

- **Equality of opportunity**. Discrimination in all its forms is a waste of talent and resources in a situation where the evidence points to the growing need to make the best use of a work force set to decline in the coming years. Equal access to the labour market is both a fundamental right and a sound economic policy.

  - A strong policy commitment to the creation of a labour market open to all is essential to cohesion.

  - Policies to promote and support the participation of women in the labour market are a key part of the employment rate targets set at Lisbon.

  - The most significant progress will come about reducing narrowing the employment gap between men and women.

While the above target areas are not entirely new in themselves, they represent a difference of approach compared to that which has been characteristic of the priority 'Objectives' up to now. It is an approach inspired to some extent by the experience of certain Community Initiatives such as URBAN or LEADER which have shown how efforts focused on a clearly defined European priority can, if deployed at the right level, attract a great deal of interest, generate new thinking and activities. An aspect not to be ignored is that these actions, where they have been operated successfully, have probably done most to create a positive image of Union cohesion policy among its citizens.

The priority areas should not be seen as a simple substitutes for the existing Objectives. Given the rapid pace of economic change, and the challenges that it poses, the formulation of future policy - and perhaps the territorial dimension in particular - needs to take account not only existing problems but, more importantly, to anticipate future ones. Accordingly, there is a basic need for a cohesion policy which has a more global and longer-term vision and which seeks to follow a proactive approach. This would also mean that future policy would focus not just on problems but also on opportunities for economic and social cohesion and the reduction of territorial imbalances.

This was the kind of approach that characterised the work undertaken by the Member States and the Commission on the European Spatial Development Perspective (adopted in Potsdam in 1999) which had as an objective the promotion of more balanced territorial development in Europe. Inspired by this work, the Commission could at a later stage propose a strategy for territorial development to the other institutions of the Union as a basis for future policy in this field.

In sum, future cohesion policy should be targeted on the factors that promote convergence and on a limited number of priorities of Community interest, in order to achieve concentration of scarce resources.

How should the delivery system for future economic and social cohesion policy be organised ?

While Agenda 2000 achieved many advances in improving the delivery system which are set out in the report, the new circumstances of enlargement, the reshaping of priorities and the need to continue to the drive to achieve greater value-for-money call for further reflection on the means by which the policy is delivered. At this stage it is only possible to address the broad issues and consider options. The third cohesion report in three year's time would have the role of specifying more clearly how the next generation of cohesion policies should be delivered.

The principal issues addressed in the following sections are as follows:

– the effective targeting ('concentration') of the limited resources available in an enlarged Union

– the particular challenge of enlargement in the current period

– cohesion policy in an enlarged Union after 2006, including certain financial aspects.

The effective targeting of the limited resources available in an enlarged Union

The starting point is that a future cohesion policy needs to be able to address not only the new Member States and regions, but also the regions in the present EU15 where the analysis of the report confirm the existence of often profound regional and territorial disparities.

It is clear, however, that when the next programming period begins in 2007, the presence of new Member States composed almost entirely of regions with a general need for support for economic development, will necessitate a massive refocusing of the effort in order to achieve a significant catching up within a reasonable period. At the same time, the least developed regions of EU15 will have ongoing needs even if they appear less severe in relative terms.

The basic principle must be the same as in the past in that limited resources must be concentrated on a limited number of problems of Community interest and areas, in order to achieve the necessary critical mass.

Maintaining priority support for regions where development is lagging behind

For the less prosperous regions, the maintenance of direct zoning (see box), for reasons of objectivity and transparency, represents the most appropriate method for concentrating support on regions most in difficulty.

The use of GDP per head (measured in terms of purchasing power standards - PPS) as a criterion and its level of application (NUTS 2 regions) still seem to be appropriate, as indicated by the comparative analysis presented in the first part of the report. For reasons of transparency and efficiency, however, there is a need to determine the principles which should apply to the definition of statistical territorial units – ie the regions.

How should the threshold for eligibility be set?

The eligibility threshold (currently set at 75% of the EU average GDP per head, see box) needs to be decided on the basis of the following two considerations. First, enlargement will automatically reduce the average level of GDP per head in the Union substantially. On the latest data available (1998), the application of a threshold of 75% of GDP per head in a Union of 27 Member States would reduce the population in the present EU15 eligible for Objective 1 assistance by more than half. This raises the question of how to treat regions in EU15 that have improved in relative terms even if underlying conditions are the same as before enlargement.

Secondly, disparities between lagging regions in the enlarged EU would be wider than at present, with some regions having a level of GDP per head of three-quarters of the EU average and others only around a quarter. The number of regions involved is not only greater, they have more profound needs.

Methods of defining eligible regions and areas

The different Objectives and Community Initiatives of the Structural Funds are currently targeted either vertically (regionally) or horizontally (by theme).

Horizontal targeting applies to the present Objective 3 financed by the European Social Fund, which has become the Community instrument for supporting the European Employment Strategy at national level. Following this approach, actions aimed at improving national education and training systems can be supported across the whole of the Union, within the limit of the resources available.

A regional targeting approach begins with the definition of a list of eligible regions and areas. Actions can be supported only within these localities. In practice, two methods have been applied in this respect:

Direct regional zoning

The Commission constructs an exclusive list of areas eligible for support. These can be defined in cooperation with the national authorities, as in the case of the present Objective 2, or by the Commission alone on the basis of statistical criteria applying to the Community as a whole, as for the current Objective 1.

This method enables intervention to be concentrated in eligible areas in a direct and transparent way. In the case of Objective 1, the use of the criterion of low GDP per head (defined as less than 75% of the EU average), expressed in terms of purchasing power standards, which is a simple, comparable and relatively robust indicator, has enabled the list of regions receiving assistance during the 2000-2006 period to be drawn up objectively.

Direct zoning, however, lacks flexibility in the face of changing regional circumstances, which, in the case of Objective 2, has led to the Commission being directly involved in the definition of very detailed maps, a task for which its competence and the legitimacy of its involvement are in doubt. In particular, outside the larger, least developed regions of the Union, the Commission has insufficient statistical and other information necessary to identify problem areas, a difficulty which has been compounded by the increasing complexity of the problems themselves and their spatial distribution.

Indirect zoning

In this method, eligible areas are decided by national governments on the basis of a set of parameters established by the Commission. This is the approach adopted by some Community Initiatives.

Indirect zoning has the advantage of being flexible and can resolve difficulties experienced under Objective 2, so long as the resources available attain the critical mass needed to be effective (as in the case of URBAN). This method can also be applied to horizontally-targeted policies, and some Member States have chosen on their own initiative to introduce regional targeting of intervention under Objective 3.

Insofar as there is cofinancement by the state, it is important that state aid rules (both geographical and sectoral) are respected.

Four options for determining eligibility and temporary support

In the light of the foregoing, the exercise of Community cohesion policy in relation to lagging regions could take one of the following four forms:

– the application of the present threshold of 75% irrespective of the number of countries joining the Union. This option on its own would eliminate a large number of regions in EU15. Their future eligibility for EU support would depend on the priorities and criteria for support outside the least developed regions.

– the same approach, but where all regions above this threshold but currently eligible under Objective 1 should receive temporary support (phasing-out), the level being higher the closer their GDP to the eligibility threshold. Two levels of temporary support could be envisaged, one for regions which, because of the extent of their convergence at the end of the 2000-2006 period, would no longer be regarded as having lagging development in an EU15, the other, set at a higher level, for those which would have been below the 75% threshold without enlargement;

– the setting of a GDP per head threshold higher than 75% of the average, at a level which would reduce or even eliminate the automatic effect of excluding those regions in the EU15 simply because of the reduction in the average EU GDP per head after enlargement. It should also, however, be set at a level which excludes those regions which would no longer qualify at the end of the current programming period in an EU15 without enlargement;

– the fixing of two thresholds of eligibility, one for the regions in EU15 and one for the candidate countries, and leading de facto to two categories of lagging region. This could have a similar result to the previous solution in financial terms in a situation where the aid intensity per head from Union funds is related to regional prosperity.

A further consideration relates to cofinancing rates (the ratio of Community to national support). After enlargement, the prosperity gap within the group of regions defined as least developed would be so large that a special maximum co-financing rate might be need to be set (relatively high) level to reflect the lower prosperity, and national budgetary capacity, of the very poorest Member States concerned.

A distribution of finance according to objective criteria

In the light of the needs, it would be difficult to sustain the case for a reduction in the resources allocated to the lagging regions – including any temporary support – as a share of the total funds available.

The essential question is that of how to ensure that the distribution of financial resources is as objective as possible according to needs. The decisions in this field under Agenda 2000 reflect considerable progress with regard to the use of objective criteria applied across the Community, at least as far as the least developed regions are concerned. This was one the more significant outcomes of the implementation of Agenda 2000. This way of proceeding should be maintained in the future, as a major element of the cohesion 'acquis.'

But a number of questions need to be addressed, including the following:

– Should the existing criteria which have been used - population, regional and national prosperity and unemployment - be extended in the next round to include the employment rate, given the present prospects for the labour market and the conclusions of the Lisbon European Council on this? This is a question to consider in the light of the way the level of structural unemployment develops in Objective 1 regions over the next few years. At present, many of these regions still have a very high rate of unemployment.

– Should the structural gaps between the regions and the Community average become part of the criteria for allocating funds?

– Should the performance reserve become a more significant part of the Structure Funds? It would almost certainly be desirable to strengthen the conditionality attached to this instrument to achieve the expected results, including in relation to the pursuit of good financial management.

Maintaining the momentum in favour of an objective methodology depends heavily on the joint efforts of the Commission's statistical office, Eurostat, and national statistical offices to improve the quality of the harmonised data at the Community level. The extension of data series to cover the candidate countries, and to make available data on purchasing power standards at regional level, are major priorities for the success of future exercises to determine the next list of regions in which development is lagging.

For the rest of the territory: indirect zoning?

Lagging regions are not the only ones with structural problems. Cohesion policy also needs to continue providing support to other parts of the Union to encourage actions of common interest. But in the light of the greater limitations on resources compared to the least developed regions, an appropriate means of targeting is essential.

In the light of the problems that have emerged in the direct zoning of aid under Objective 2 for the period 2000-06, it would seem that the process of concentration could be more satisfactorily achieved by opting for an indirect zoning method. Here, the defining feature is that the concentration of resources is an integral part of the programming process (see Box). The Commission would no longer set rigid eligibility criteria, only a lower limit on the level of overall public financial support – from Community and national sources - in order to ensure that the resources mobilised achieve the critical mass to have a real impact (as under the URBAN Initiative).

In such circumstances, the programming of the different priority domains would need to be undertaken on the basis of an allocation of resources by Member State. There are a number ways in which this could be done, but the simplest would probably consist of a national allocation according to population (outside the least developed regions) adjusted by an appropriate indicator, or indicators, of socio-economic conditions. On the basis of the national allocation the Member States would programme actions at national and regional level, drawing from a limited number of the priority areas of the sort illustrated above. A strategic vision of the priorities and opportunities drawn up by the Commission with regard to the subjects of Community interest would play an important role in setting the efforts in each Member State in a Community context.

Consideration also needs to be given to the national and/or transnational methods of programming, focusing especially on the role of the Member States and the Commission, on the conduct of partnership, on the techniques required for territorial analysis and on the criteria for guiding Community action.

Particular cases

The present **border regions** in the Union have in general reached much the same level of development as the rest of the Union, as shown in Part I of this report. This fact demonstrates the value of past Community intervention in this area. There is therefore a case for including cross-border cooperation programmes in the general programming of the Structural Funds ("mainstreaming").

Border regions with lagging development would, of course, be eligible for support in the same way as any other region if they comply with the general criteria adopted.

The **outermost regions** of the Union have particular handicaps as result of their distance from the rest of the Union and their special position is reflected in the Treaty. Article 299(2), as a policy instrument, allows the European Union to maintain and reinforce actions to promote the integration of the outermost regions into the Community , taking account of their unique character. To this end, in March 2000 the Commission established a strategy for sustainable development in the outermost regions. It has already introduced new initiatives in the fields of State Aids, agriculture, the Structural Funds, tax and customs policy, as well as promoting the co-ordination of the Structural Funds and the European Development Fund in the areas containing these regions. The Commission has undertaken to consider how their needs should be best reflected in future cohesion policies.

The particular challenge of enlargement in the current period

Since the reform of the Structural Funds in 1988, the management of Community cohesion policy in terms of monitoring, evaluation and control has been steadily reinforced.

This is the context in which the candidate countries are preparing to join the Union. At present, the pre-accession instruments are assisting their preparations, while the PHARE programme will in the future devote a large part of its resources to Objective 1 type programmes, within a medium-term planning framework, which although 'indicative' will prepare the way for the overall strategic programming of future Community support from the Structural Funds.

The Commission must take all necessary steps to ensure that, as in the case of the EU15, programmes take account of the situation and the specific difficulties in the new Member States. It should aim to help the authorities concerned to define their programmes in the light of Community priorities.

The question of the administrative capacity of the candidate countries

The implementation of regional development policy is a new task for the authorities in the candidate countries, which have limited funds at their disposal. Indeed, there is no tradition of such a policy, and the decentralisation which it implies, in countries used to centralised planning arrangements.

The process of administrative construction (or 'institutional building') is therefore very important, especially as compared with previous occasions of Union enlargement, when all that was required was the simple adaptation of policies and national legislation to the need to implement the Structural Funds.

The first objective is to create a policy at the national level. This was the subject of a special assistance programme (SPP) enabling the candidate countries to prepare, with the support of PHARE, for the implementation of the Structural Funds by establishing a competent authority and the necessary procedures, particularly for coordination between Ministries. Budgetary procedures also need to be put in place to enable them to co-finance programmes and to manage and control the use of Community resources.

There is a need, in addition, to support decentralisation, which is related to the general effort to achieve three major objectives – the consolidation of democracy, the development of partnership and an increase in economic efficiency.

The second aspect is the definition of an intervention strategy aimed at ensuring the effective use of Structural Fund resources and at reducing development disparities in global terms and within countries to avoid the risk of excessive concentration.

The candidate countries also have to build the administrative capacity to define strategies, prepare programmes and manage the corresponding budgets, particularly the funds which come from the Community budget, under the same conditions as the present Member States. During the accession negotiations, the Commission will examine very closely the ability of the candidate countries to meet all the conditions required for them to be able to receive financial transfers.

The financial resources up to the end of 2006

Given that there will be a number of new Member States during the current planning period 2000-06, there are certain matters to be considered in relation to finance during this period. The first relates to the financial perspectives until 2006 decided by the Member States at the European Council in Berlin, including a package to support both interventions in EU15 as well as in the candidate countries for the period before and after accession. After the European Council in Nice in December 2000, it seems likely that the first accessions will take place in 2003-2004. This enlargement scenario differs from that which was the basis of the Berlin decision. It will therefore be necessary to take account of the effective date of accession of new Member States. A phasing-in system may be necessary for the assisted regions in the future Member States, where Structural Funds would be progressively increased over time, in line with their capacity to absorb aid, as was indeed the case during the two previous planning periods.

A second matter concerns the distribution of resources between the Cohesion Fund and the Structural Funds. These funds will, in effect, succeed ISPA, in the first case, and PHARE and SAPARD, in the second (with a ratio at present of one-third and two-thirds, respectively, in terms of their financial weight). Allocating a higher proportion, say one-third, to the Cohesion Fund seems to be justified by the needs of the countries concerned in respect of transport infrastructure and the environment.

Two other considerations argue for a larger weight being accorded initially to the Cohesion Fund in the candidate countries in relation to the proportion allocated to the present Member States. First, a management-by-project approach might prove to be more suited to the

authorities who still lack programming experience; secondly, the high rate of co-financing and the fact that the principle of additionality does not apply to the Cohesion Fund would facilitate the absorption of Community funding.

The distribution of Structural and Cohesion Fund resources between the new Member States will be determined according to the same principles, methods and objective criteria as applied to the present Member States.

Cohesion policy in an enlarged Union after 2006, including certain financial aspects.

As the report explains, important modifications to the different aspects of the management of cohesion policy were made during the adoption of Agenda 2000. These were aimed at increasing decentralisation, promoting partnerships and integrating evaluation more effectively into the decision-making process. More rigorous financial management and control, based on a clearer and more meaningful division of responsibilities between the Member States and the Commission, was also introduced. On this last point, the objective is to reduce significantly the incidence of fraud, but above all of irregularities which represent the overwhelming majority of the cases brought to the attention of the Commission.

The new system is only now beginning to be applied. The next Cohesion Report will contain a first assessment of results of the changes, but certain elements can already be outlined, which need to be further examined in the context of the preparation of the new planning period after 2006.

In relation to **partnership**, there has been a growing tendency to decentralise decision-making as regards national and Community policies. There is a undoubtedly a need to strengthen the role of regional and local authorities and of those on the ground by, for example, programming at the local level when appropriate. In addition, if in the future indirect zoning is the method retained for targeting resources, it would be essential that it is accompanied by guarantees regarding the involvement of regional and local authorities.

Programming of actions could operate in two phases. In a first step, the Commission could set out a global strategy comprising the different economic, social and territorial dimensions in partnership with the Member States at national level and transnational level with a view to identifying priorities including those of particular Community interest. This would help to determine how finance is allocated by priority. Afterwards, programming would be decentralised to the appropriate level, for example at regional, urban or transnational level.

For lagging regions, integrated programming remains a major means of obtaining positive results in terms of their economic, social and territorial development.

It is may be possible to make use of a call for tender procedure for the implementation of some programmes, enabling the best proposals to be selected completely transparently. The selection could be made at different levels (regional, national or transnational and in cooperation with the Commission) which would strengthen the links between the results achieved and the finance allocated.

The principle of **additionality** (requiring Community funds to add to, rather than substitute for, national funds) was simplified considerably for the period 2000-06. Experience will confirm if it has become more effective as a way of contributing to the added value of Community cohesion policy. At the same time, it remains a highly aggregate figure in the

sense that it does not apply to individual programmes, but to all programmes under a single Objective in a given Member State.

It is therefore lacking in transparency, and it might be worth considering the possibility of calculating additionality at the programme level rather than (as at present) at the Member State level especially for programmes aimed at the less developed regions. At the same time, it is important not to underestimate the difficulties in terms the availability of data that this would imply, a traditional constraint on attempts at improvement in this field. The methodology will be evaluated in the light of the experiences in the implementation of the additionality principle which will take place in 2003 and 2005.

Evaluation has now been firmly established definitively as an integral part of programming procedures. The 'performance reserve' is one of the important innovations brought about by Agenda 2000. As already discussed, the link between the finance allocated and the results achieved needs to be strengthened.

Improving the coherence between the Cohesion Fund and the Structural Funds

The Cohesion Fund, which was established by the Treaty is targeted on Member States in which GNP per head is less than 90% of the Community average and which have established a programme for macro-economic convergence. As a complement to the Structural Funds, it has proved a useful instrument for promoting investment and in helping the cohesion countries to catch up.

Matters for consideration for the future concern the amount of financial resources which should be allocated to the Fund in absolute terms and to strengthen the coordination of the support provided with that provided by the Structural Funds.

The Treaty limits the Cohesion Fund to the financing of investment projects in transport networks and the environment. While the Cohesion Fund applies at national level, there would be clear advantages in selecting projects so as not to increase regional disparities and to avoid excessive concentration in the more prosperous capital cities and surrounding regions.

At present, the share of the Cohesion Fund in total expenditure on structural policies in the Member States concerned is around 18%. Whether the same balance between the Cohesion Fund and the Structural Funds is appropriate to the new Member States is a matter for further consideration, possibly after a transition period.

The allocation of the resources of the Cohesion Fund between recipient countries should be decided on the basis of purely objective criteria as in the case of the Structural Funds at present. The need for objectivity will become more important for all Member States after the accession of new countries.

In order to strengthen the coordination between actions supported by the Cohesion Fund and those supported by the Structural Funds, the two should be made part of a unique framework. For cohesion countries, the Cohesion Fund should become the only instrument for financing large transport and environmental projects in lagging regions.

The financial aspects of cohesion policy in an enlarged Union after 2006

The evidence presented in the report on national, regional and social disparities demonstrate that there is an increased need for cohesion policy in an enlarged Union. The analysis in Part I of the main report shows that economic and social disparities within the Union will widen

considerably with enlargement. The challenge of maintaining economic and social cohesion will therefore increase.

Inevitably the bulk of the financial effort would be addressed to the new Member States. In a real sense, the size of the global financial package will determine the level of ambition on the part of the Union in tackling problems which persist in the EU15, especially in its lagging regions. It is within this framework that discussion on the budget for cohesion policy has to be set.

While it is premature to put forward budgetary proposals for cohesion policy after 2006 - which in any event would have to be considered as part of a global discussion on future Community policies - it is appropriate to recall a few figures and to give a few reference points to assist debate.

Between the 1988 reform and 1999, the Union strengthened its cohesion policy in terms of the financial resources devoted to it in absolute terms and relative to the Community budget as a whole. Under Agenda 2000, the Commission initial proposal was to maintain the level of financial support reached in 1999 for the EU15 (0.46% of GDP) throughout the 2000-2006 period.

In the event, the European Council in Berlin allocated € 213 billion to structural measures in the 15 Member States for the 2000-2006 period, an average of € 30 billion a year. The resources given as pre-accession aid (€ 3 billion) and the sums reserved for the countries which join between 2002 and 2006 form an additional part of the overall package for cohesion policy. In addition, cohesion policy for new Member States after accession was set at a progressively increasing figure reaching € 12 billion in 2006. These decisions together set the total amount in effect at 0.45% of the GDP in the enlarged Union of 21 Member States in 2006, virtually the same as at the beginning of the period for EU15.

The same percentage needs not necessarily be taken as a reference point for future cohesion funding but it must be clear that, in order to remain credible, regional and cohesion policy needs to deploy resources commensurate with needs in the circumstances which prevail.

Enlargement and the ceiling on transfers

Under the current rules for the period 2000-06, transfers from the Structural and Cohesion Funds are limited up to a maximum of 4% of national GDP a year in all Member States. As a figure determined in relation to the situation in the present Member States, in an effort to keep the transfer from the Union to levels that can be managed by the recipient administrations, it is a ceiling that will have important consequences for some of the least prosperous candidate countries when they join the Union.

In the new context, the following constraints must therefore be reconciled:

– Addressing the cohesion objective, especially the enormous development needs of the candidate countries;

– Taking proper account of the absorption capacity of these countries in economic, financial and administrative terms.

Taking full account of the relative prosperity of the countries concerned would give rise to significant risks as regards their absorption capacity and the balance of public expenditure. Consequently, addressing the question of the ceiling would only be relevant in exceptional

circumstances, such as in the case of projects financed by the Cohesion Fund which represent a particular Community interest.

Continuing pre-accession for other candidate countries

Assistance for pre-accession, modified if necessary, should continue to apply to the candidate countries which have not yet joined the Union on the 1st January, 2007. The amount of finance required should be the subject of an objective evaluation in relation to needs, the capacity for absorption and the number of countries in receipt of the support.

Increasing the contribution of other policies

Community policies have their own objectives and their effect on cohesion is difficult to assess in a number of cases, but it is necessary, as a complement to a stronger geographical and thematic concentration of the Funds, to reinforce synergies and the complementarity between cohesion and other community policies.

Certain community policies contribute indirectly to economic and social cohesion by helping to create more favourable conditions for development in less prosperous Member States and regions.

This is true of Economic and Monetary Union which helps to achieve macroeconomic stability in the cohesion countries in particular which, because it is favourable for investment and economic growth, is a necessary, though not a sufficient, condition for real convergence.

The same is true of the internal market, which, together with structural reforms, has an important influence on social cohesion across regions. The Union is undertaking a major effort to reform product, capital and labour markets. The reduction of the disparities between regions requires investment aimed at increasing the economic potential of the less developed regions.

Faster growth does not automatically lead to closer regional integration and reduced income inequalities. Accordingly, further reforms, a reduction in barriers to competition in some markets, especially in services, and the support of cohesion policy are needed to reap the full benefits from the catch-up process in some Member States and to reduce existing inequalities between regions.

EMU like the internal market needs to be complemented by accompanying policies so that all Member States and regions can benefit fully from economic and monetary integration. In this respect, maintaining structural spending which complements the Structural Funds, particularly in the fields of education, training and employment, as well as research and technological development, is essential for the overall effectiveness of cohesion policy.

Competition and cohesion policies are complementary, since the ceiling imposed on regional State Aids benefits the less prosperous countries most of all. This thrust of policy needs to be pushed further to establish more equitable conditions for competition, while taking account of the role played by services of general interest in territorial cohesion.

The European Employment Strategy, is necessary for cohesion. It should, however, be adapted to different regional and local circumstances in order to respond better to the very different performances of labour markets. This objective has already been taken into account in the measures supported by the Structural Funds for the period 2000 to 2006. But national

budgets do not identify clearly the way in which strategic objectives are translated into financial commitments, which makes it difficult to detect such a move.

Other Community policies have a major effect on the territorial structure of the Union

The Common Agricultural Policy has largely achieved the objectives set, which focus on improving the competitiveness of European agriculture. The change in the CAP means that it benefits some cohesion countries today more than before, but its contribution to territorial cohesion remains very variable and depends on regional systems of agricultural production. The second pillar of the CAP, rural development policy, needs to be on a quite different scale, especially in areas which are affected most by the continuing changes in agricultural policy.

In some small coastal areas, fisheries accounts for a significant share of employment. For the Common Fisheries Policy, the challenge is to restore a sustainable balance between fish stocks and fishing. Since activities linked to fishing are concentrated in less favoured areas, accompanying social and economic policies are required to enable diversification to take place.

The trans-European transport networks are an instrument of territorial development and can have a significant effect on regional disparities as highlighted by the European Spatial Development Perspective (ESDP). There needs, however, to be greater complementarity between the policy on large networks and Structural Fund programmes and when the guidelines for trans-European networks are revised, more account should be taken of the cohesion objective.

All the analysis carried out in the Cohesion Report shows the importance of research and innovation for competitiveness. Despite some progress under the 5th Framework Programme, research and development (RTD) is still concentrated in the most central and competitive regions. To make the European Research Area a concrete reality, the emphasis needs to be put on the regional dimension of RTD through networking and improving the coordination with the Structural Funds. The challenge here is to ensure that lagging regions become full partners in this area.

Environmental policy, with economic and social cohesion, is one of three pillars of sustainable development. The design of this policy should give more consideration to territorial disparities and specific features as well as to the financial effect on regions of the measures envisaged.

The Community budgetary system and cohesion

As regards the overall Union Budget, a balance between contributions and the distribution of expenditure for each Member State is not an objective in itself. Individual Member State contributions are, however, becoming more proportional to GNP. Union expenditure reflects the content and priorities of Community policies, only cohesion spending being inversely related to regional GDP per head.

Strengthening the contribution of other policies to the cohesion effort

With enlargement, the globalisation of the economy and the development of the knowledge society, the Union is facing unprecedented economic and social changes. It is, therefore, necessary for other Community policies to increase their contribution to economic and social cohesion, as foreseen in the Treaty.

It is important to consider the response to the greater need for coherence, complementarity and efficiency of Community policies and the instruments necessary to make this happen. This consideration forms part of the work initiated by the *White Paper on Governance.*

10 QUESTIONS for PUBLIC DEBATE on the FUTURE of COHESION POLICY

1) What will be the role of cohesion policy in an enlarged Union of nearly 30 Member States in a context of rapid economic and social change? How is it possible to further economic convergence and preserve the European model of society?

2) How should Community policies be made more coherent? How should the contribution of other Community policies to the pursuit of cohesion be improved?

3) How should cohesion policy be modified in preparation for an unprecedented expansion of the Union? Should cohesion policy also address territorial cohesion in order to take better account of the major spatial imbalances in the Union?

4) How can cohesion policy be focussed on measures which have a high Community added value ?

5) What should be the priorities to bring about balanced and sustainable territorial development in the Union?

6) How should the economic convergence of lagging regions of the Union be encouraged?

7) What kind of Community intervention is required for other regions?

8) What methods should be used to determine the division of funds between Member States and between regions?

9) What principles should govern the implementation of Community intervention?

10) What should be the response to increased needs with regard to the economic, social and territorial dimensions of cohesion?

Second Report on Economic and Social Cohesion

Part I – Situation and trends

Part II – Contribution of Community policies to cohesion

Part III — The EU Budget and the contribution of structural policies to economic and social cohesion

The Statistical Annex to this report will be published as a separate document. References in the text to tables, graphs and maps in the Annex, which are all prefixed by the letter 'A', relate to this document.

Part I — Situation and trends

I.1 Economic cohesion

Overview of the European economy

The EU economy today is heavily reliant on services, which now account for 67% of output and 66% of employment, in both cases up by 5 percentage points from 10 years ago. Correspondingly, the importance of manufacturing and agriculture is tending to decline. This shift towards the service sector is likely to continue, while agriculture and manufacturing will continue to experience consolidation of production in higher value added activities and a fall in output and employment in others. In most applicant countries, output and jobs are still concentrated in agriculture and manufacturing, and within these in lower value-added subsectors, suggesting more restructuring in the future.

Growing trade and foreign direct investment have meant a gradual opening up of national economies in the EU towards both other Member States and the rest of the world. In 1999, exports amounted to 32% of EU GDP and imports to 31%. Both figures are the highest recorded since statistics began to be collected in the modern era, confirming the long-term growth in trade in the EU, despite fluctuations over the business cycle. Both are forecast to increase further in the future. Some 60% of trade was within the EU, illustrating the dependence of EU countries on each other, though, at the same time, interdependence with the rest of the world is also increasing.

The EU will continue to experience significant changes in the competitive environment over the next few years, which will affect the economy in general and cohesion in particular:

- continuing economic pressure from globalisation, increasing international competition and restructuring within particular sectors. Since sectors tend to be concentrated in particular regions and to involve particular social groups, restructuring is likely to pose a challenge to both regional and social cohesion. In addition, since globalisation tends to bring with it more standardisation and uniformity, it is important for the opportunities which it opens up to be balanced with the need to maintain cultural identities in different parts of the EU;

- enlargement and the challenge of integrating the applicant countries into the EU. Although enlargement will in the long-term be universally beneficial, it is likely in the short-term to bring pressure for restructuring, as firms in applicant countries face increased competition, in a context where their low income and output already pose challenges to cohesion;

- the information revolution. In a real sense, information technology is tending to reduce the physical isolation of peripheral parts of the Union and increase their 'virtual' isolation, insofar as the key to development is access to the technology, rather than access to markets. The key barriers are, therefore, low education and social factors, rather than transport costs. Although the change is as yet more potential than actual, it is likely to become much more of a reality in the coming years. It may well have a beneficial effect on regional cohesion, bringing the disadvantaged periphery closer to the centre, but it could be damaging for social cohesion. Education will become increasingly important to avoid a division of society between the technologically literate 'haves' and the technologically illiterate 'have-nots'.

Divergence and convergence in economic performance

Disparities between Member States remain despite strong convergence

The present EU can be divided into two groups of countries in terms of gross domestic output (see Table A.1 in the Annex). There is a clear gap between Spain, Greece and Portugal, where GDP per head, measured in terms of purchasing power standards to indicate relative levels of wealth, is only 67-82% of the EU average, and the other Member States, where it is similar to or above average.

This is despite significant convergence achieved by these three countries over the past decade. As a group, their GDP per head rose from 68% of the EU average in 1988 to 79% in 1999. Individually, the gap between Spain and Greece and the EU average narrowed by 9-10 percentage points in each case, and for Portugal by 17 percentage points. Although the overall gap in GDP per head of the three countries with the rest of the EU was reduced by a third over this period, at this rate of convergence, it would still take another 20-30 years for it to be eliminated completely. This underlines the long-term nature of the convergence process, though whether it takes more or less time to achieve complete convergence depends on whether and to what extent there is a change in underlying conditions and in the context in which growth takes place.

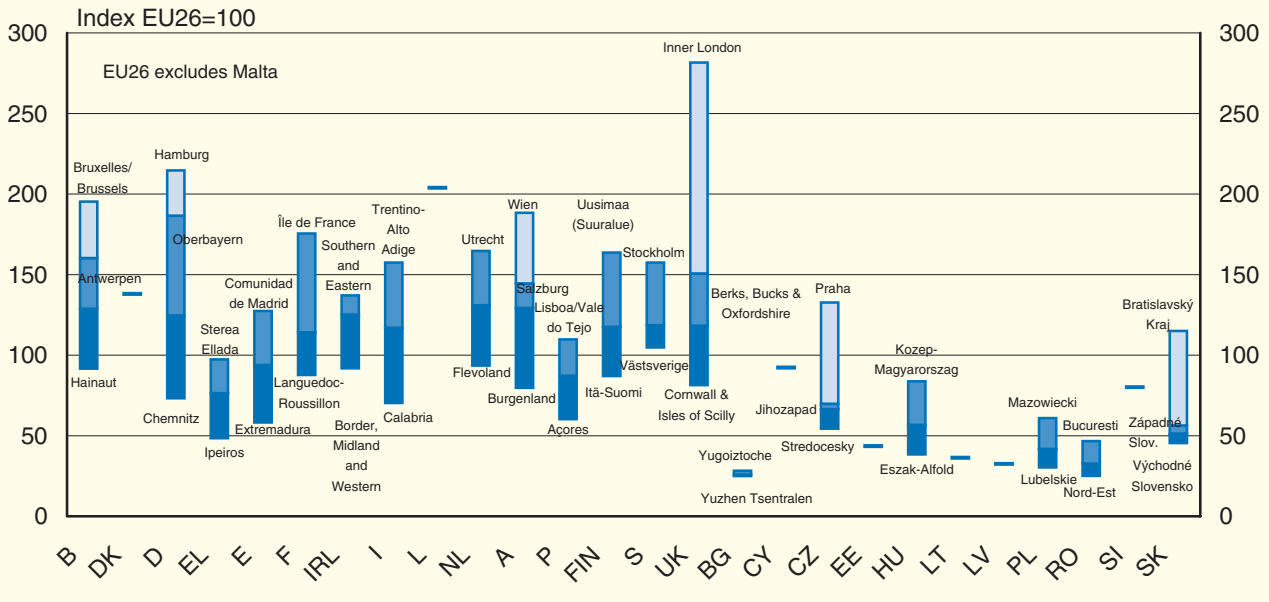
An encouraging sign in this respect is the strong performance of Ireland, which 10 years ago was included in the least prosperous group of countries with GDP per head of only 70% of the EU average but now has a level 14% above average.

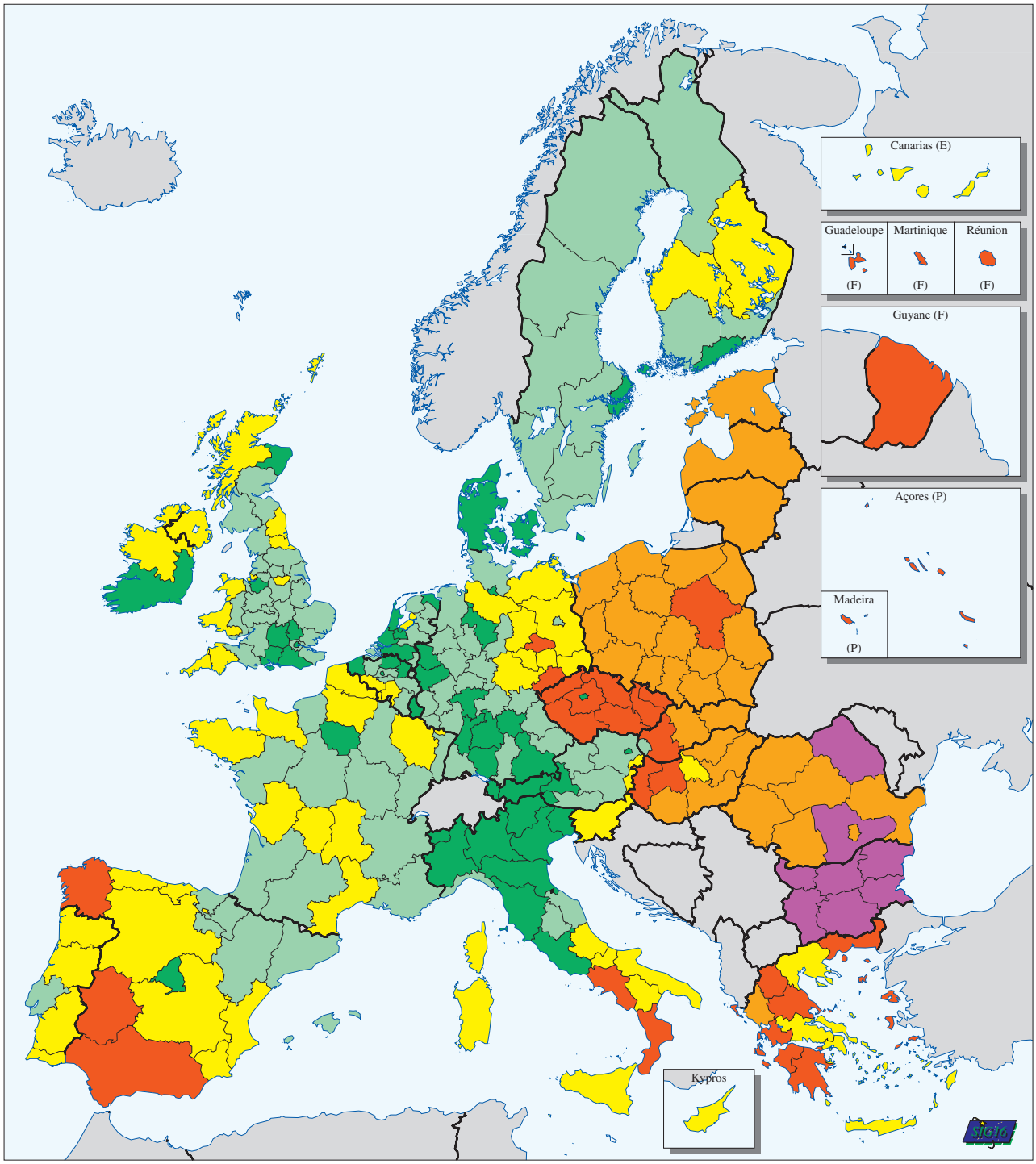
An important point to emphasise in this context is that convergence of GDP per head in terms of PPS depends not only on differential rates of output growth, on GDP growing faster in the cohesion countries than in other Member States, but also on relative price developments, which affect the PPS adjustment (see Box on GDP and other measures of the regional economy).

Disparities between regions have narrowed but by less

Disparities are even wider between regions in the EU[1] (Map 1 and Table 1). The 10% of regions with the highest GDP per head consist largely of northern capital cities and the most prosperous southern German and northern Italian regions. Broadening this to the top 25% leads to the inclusion of many UK regions, some Austrian, Belgian and Dutch regions and

1 GDP per head (PPS) by country and regional extremes, 1998





1 GDP per head by region (PPS), 1998

Index, EU26 = 100

- < 30
- 30 - 50
- 50 - 75
- 75 - 100
- 100 - 125
- ≥ 125
- no data

Source: Eurostat

0 100 500 km

Madrid and Rome (Lazio). The bottom 10% of regions consist predominantly of those in Greece and the French DOMs and also include some regions in Portugal, Spain and southern Italy, while the bottom 25% include many other Spanish and Portuguese regions, the remaining part of Southern Italy and Eastern Germany, as well as some peripheral regions in France and the UK.

The contrast between the top and bottom 10% is stark. The regions at the top have an average GDP per head 60% above the EU average, or 45% if regions where commuting is important are excluded,[2] while those at the bottom have a level nearly 40% below. In other words, in the top 10% of regions, GDP per head is around 2½ times that in the bottom 10%. Similarly, the top 25% of regions have a level twice that of the bottom 25% and account for a third of total EU GDP as against a sixth in the case of the latter.

However, there was significant convergence over the period 1988 to 1998 (see Map A.1). In the bottom 10% of regions, GDP per head rose from 55% of the EU average to 60%, though in the bottom 25%, it only rose from 66% of average to 68%. (These increases are not as dramatic as reported in the 6th Periodic Report, where the top and bottom regions were defined merely in terms of numbers of regions instead of the population they cover.)

Again, this underlines the long-term nature of convergence, since the gap between the bottom 10% of regions and the EU average narrowed by only 11% over these 10 years.

Regional disparities within countries are large, but may be stabilising

In addition to regional disparities across the EU as a whole, there are in many cases large disparities within individual Member States (see Table A.2 and Graph 1). The divided economies of Italy and Germany are obvious examples, but in most countries, one region, or a few of them, have levels of GDP per head far above, or below, the national average. Capital cities, such as London or Paris (Ile de France), tend, in particular, to have levels much higher than average,[3] while in many remote and rural regions, such as Ipeiros in Greece, Calabria in Italy and Açores in Portugal, GDP per head is well below that elsewhere. This firmly demonstrates the fact that countries cannot be treated as homogenous economies and that it is important to consider regional as well as national features and trends.

Table 1 The most and least prosperous regions in the Union, 1988-1998

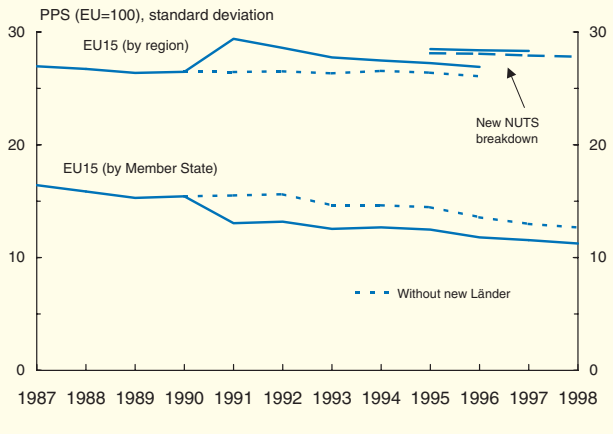
GDP per head (PPS) as % of EU average

Regions	EU15		EU27
	1988	1998	1998
10% +	155,3	160,9	176,9
10% -	55,1	61,0	31,1
ratio	2,8	2,6	5,7
25% +	134,1	137,1	152,0
25% -	66,6	68,3	44,3
ratio	2,0	2,0	3,4

10% + and 25% + : the regions with the highest GDP per head (PPS), accounting for 10% and 25% respectively of total population in the Union
10% - and 25% - : the regions with the lowest GDP per head (PPS), accounting for 10% and 25% respectively of total population in the Union
Source: Eurostat, calculations DGRegio

The tendency observed in the First Cohesion Report, for regional disparities in GDP per head to widen over time seems still to hold in a significant number of Member States but in some others, disparities between regions have narrowed a little (see Table A.3 and Graph 2). Nevertheless, the recent reduction in disparities which has occurred in a few Member States may simply be cyclical, since lagging regions tend to converge more in periods of growth than during recessions.[4]

2 Disparities in GDP per head, 1987-98



Moreover, substantial disparities remain, especially in some of the less prosperous Member States.

For example, while GDP per head does not differ much between regions in Greece, a gap has opened up in recent years between the main centres of economic activity around Athens and Thessaloniki and the rest of the country. Indeed, since the closure of land routes to the rest of the EU through the former Yugoslavia, the port and airports in Athens are the main entry and exit points for trade with the rest of the world. In consequence, the regions in the remote and mountainous interior remain the poorest in the EU mainland.

In Spain, the second largest country in terms of land area in the EU, the pattern of development is also varied. GDP per head remains relatively high in Madrid and Cataluña and has risen further over the past decade. Other regions in the north, notably Navarra and Pais Vasco, have also performed well, but those in the remote north-east and underdeveloped south have tended to do less well, GDP growing by less than the EU average in the former and hardly at all in the latter, which are among the least developed parts of the EU. Accordingly, regional disparities in Spain have widened further.

Disparities are also wide in Portugal, development being concentrated along the coastal strip, in Lisboa, Oporto and the Algarve, though disparities have narrowed over the past 10 years.

Migration has been a feature in Sweden and Finland, from the sparsely populated, remote regions in the north – as well as from the east in the latter – as economic recession hit hard in the early 1990s. Outward migration has continued since then, despite the partial recovery in GDP per head.

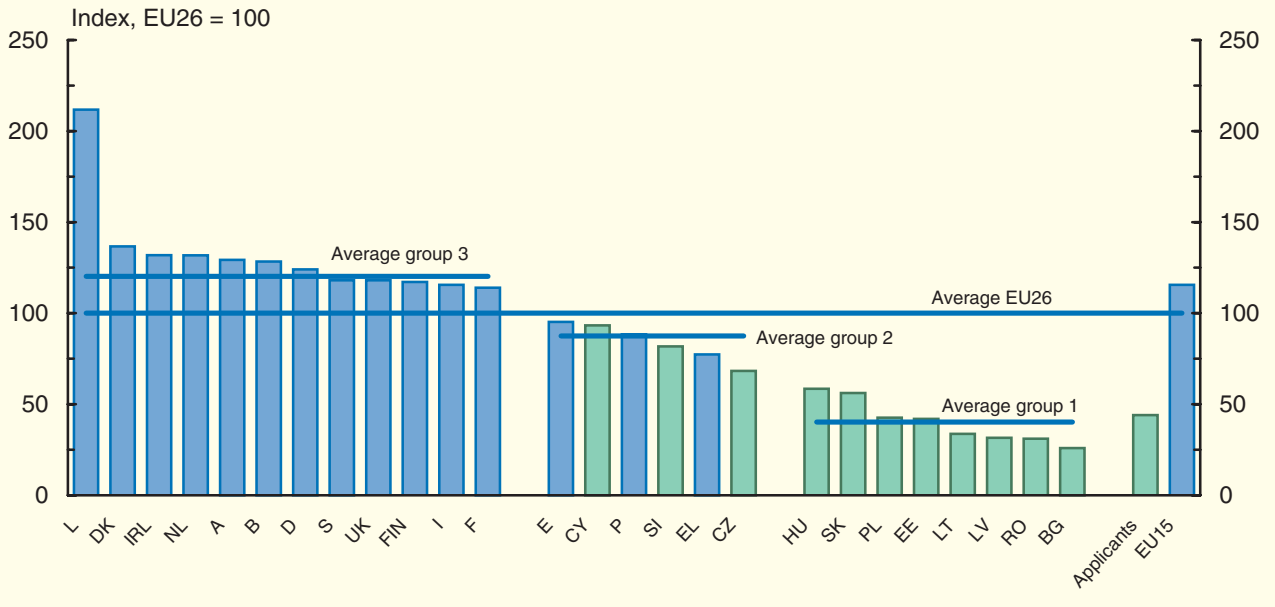
Disparities are both wide and long-standing between the north and south of Italy. Despite the economic upturn elsewhere, GDP per head in the Mezzogiorno has continued to stagnate at around 60-70% of the EU average. Only in Basilicata has growth over the past decade been significant and even here, GDP per head only rose from 63% of the EU average to 72% between 1988 and 1998.

GDP per head in terms of PPS in the new German Länder, where growth was very rapid in the first few years following unification, was also around 68-70% of the EU average in 1998.

Disparities double in scale with the inclusion of applicant countries

It is instructive to examine the disparities which would exist in the Union at present if all the applicant

3 GDP per head (PPS), 1999



countries[5] were considered together with the existing 15 Member States. However, it is recognised that by the time these countries actually enter the Union their GDP per head could be higher than at present, depending on their economic performance in the intervening period and the effect of accession itself on this.

It also has to be recognised that there are significant differences between the candidate countries, not only in terms of GDP per head but also in terms of their economic performance since the transition was initiated, which in part reflects the pace and extent of reforms during this period (see Box).

Three groups of countries can be distinguished in the EU of 27 in terms of GDP per head instead of the present two (Graph 3). The existing EU Member States, apart from Spain, Greece and Portugal, form the first group with GDP per head 20% above the new average. These three cohesion countries plus Cyprus, the Czech Republic, Slovenia and almost certainly Malta (though no PPS figures are available) form the second group, with GDP per head between 68% (the Czech Republic) and 95% (Spain) of the EU 27 average, while the remaining 8 applicant countries form the third group, with GDP per head below this (and, on average, only 40% of the EU27 average, though 56-58% for Slovakia and Hungary).

Enlargement will, therefore, pose a challenge to cohesion in two ways (Table 2). First, it will more than double the population living in regions with GDP per head of less than 75% of the present EU average – EUR 20,213 per head – from 71 million to 174 million, or from 19% of the EU15 total to 36% of the EU27 total (or to 26% of the EU27 total if the EU average GDP per head is reduced to that of the 27 countries, ie EUR 16,504).

Secondly, it will increase the intensity, or scale of disparity. In 1998, GDP per head in the lagging regions of the Union averaged 66% of the present EU average. In lagging regions in the applicant countries, it was much less than this (around 37% of the present EU average), so that the two groups of regions

Recent economic developments in the candidate countries

The long-term growth potential of the candidate countries is substantial and this is likely to benefit the present EU Member States in future years.

The economic performance of the candidate countries in Central Europe has, in most cases, improved significantly since the mid-1990s, though because of the growth of the EU over this period, there has been little convergence in terms of GDP per head. At the same time, regional disparities within the countries have tended to widen, especially between the capital cities plus the regions bordering the EU and eastern areas. Future policies will need to tackle these disparities.

While GDP growth in the candidate countries taken together (but excluding Turkey) was only 2.2% in 1999, that is less than in the EU15, in five of them (Slovenia, Hungary, Cyprus, Poland and Malta), it exceeded 4%.

Apart from Romania (and Turkey), inflation has stabilised at around 10% a year or even below, though the relatively slow reduction of inflation in Hungary and Poland remains a concern.

While the balance of payments on current account has improved in a number of countries, the deficit remains significant in Estonia, Latvia, Lithuania and Poland. Deficits have been financed to a large extent by capital inflows linked to privatisation, but new investment has also increased in a number of countries.

Despite efforts to reduce the budget deficit in most countries, public finance sustainability remains a cause of concern.

The privatisation of large enterprises is underway in Hungary, the Czech Republic, Estonia and Bulgaria and, to a lesser extent, in Latvia. In Poland, the rate of privatisation has been sustained but restructuring has only just begun in the iron and steel industry and agriculture. In banking, privatisation has progressed in the Czech Republic, Bulgaria, Latvia and Slovakia, as well as in energy supply and telecommunications.

The macroeconomic situation in the candidate countries is mixed, with favourable aspects (growth potential, FDI, the growth and shift of trade flows and even inflation) and others which are weaker (the current account deficit, unemployment and the budget deficit). But the situation in these countries cannot be compared directly with that in the present EU Member States, given their starting point and the importance of restructuring.

together had a GDP per head of less than half (48%) the average.

On the basis of the present data, the statistical effect of including the 12 applicant countries is to reduce the EU average GDP per head by 18%. As a result of this hypothetical exercise, 27 of the regions in the existing EU with some 49 million inhabitants are raised above 75% of the average of the 27 countries. This, of course, does nothing in itself to resolve the development problems of the regions concerned, it just signifies that their relative position is improved by the entry of regions even worse off than themselves.

Given the present data and assuming that the EU were suddenly expanded by 12 Member States, the challenge to cohesion, therefore, in an EU27 can be said to be twice as widespread and twice as large in scale as at present. The challenge, moreover, is likely to persist for a long time. If the applicant countries were to experience the same rate of growth as the cohesion countries over the past decade, their present level of GDP per head implies a convergence process lasting for at least two generations. Even with the kind of growth experienced in Ireland over the past decade, it would take 20 years before they reached 90% of EU15 GDP per head.

Regional disparities also double with enlargement

The inclusion of the 12 applicant countries has virtually no effect on the identity of the regions with the highest GDP per head in the Union,[6] but completely changes the composition, and relative level of income, of the regions with the lowest level. The bottom 10% of regions (in terms of population) in an enlarged EU consist entirely of those in eastern Poland, Bulgaria and Romania together with Lithuania and Latvia. The 25% of regions with the lowest GDP per head comprise almost all the regions in the applicant countries and most of those in Greece, Açores and Madeira in Portugal and Andalucia and Extremadura in Spain.

It is noteworthy that very few regions from the current EU appear in the list of the least prosperous regions of an enlarged Union. It is also noteworthy how much GDP per head of the 10% of the bottom regions is reduced, falling from 61% of the EU average at present to only 31% of the average for an enlarged EU. Whereas at present, only Ipeiros in Greece has an income less than half the EU average, in an enlarged EU, some 79 million people would live in regions with GDP per head less than in Ipeiros.

As in the case of disparities between countries, the ratio of GDP per head in the top regions to that in the bottom in the enlarged Union is around double the ratio for the present EU. The top 25% of regions in an enlarged EU, therefore, would have an average level of GDP per head of 3.3 times that of the bottom 25% as against a ratio of 1.9 in the present EU, while the top 10% of regions after enlargement have a level 5.3 times the bottom 10% as compared with a ratio of 2.4 at present.

Trends towards convergence

The use of different economic models to explore trends in regional development can be helpful both in indicating the likely outcome in future years if these trends remain the same, and if regional economies continue to perform as in the past, and in identifying the key factors that need to change if convergence in GDP per head is to occur. Three main conclusions emerge from these models.

First, if past trends continue, it will take a number of decades for regional disparities in the present EU to be eliminated.

Secondly, there can be no guarantee that such an elimination will occur. More specifically, while regional economies might converge over time to their own equilibrium level of GDP, given the underlying

Table 2 Summary statistics for regions below 75% of EU GDP per head, 1998

Index used	In EU15	In EU26	
	EU15=100 EUR 20213	EU15=100 EUR 20213	EU26 = 100 EUR 16504
Number of regions falling below 75 %	46	97	70
Population in those regions (millions)	71	174	125
Population as a proportion of EU15/26	19%	36%	26%
Average GDP/head (PPS) of regions falling below 75%	66	48	46

EU26 excludes Malta
Source: Eurostat, calculations DG REGIO

conditions which prevail and their own factor endowments, there is no necessary reason why this process in itself should lead to a convergence towards the EU level of GDP per head and to a reduction in regional disparities in these terms in the Union. The only way to be sure of the latter is if there is a change in the underlying conditions themselves and in relative factor endowments (in terms of capital of all kinds and different labour force skills). The primary objective of regional and structural policies is precisely to bring about such a change.

Thirdly, it is of key importance for convergence of regions towards the average EU level of GDP per head that disparities in human capital endowment – ie in the skills of the labour force – are eliminated, or at least significantly reduced. This implies, in turn, a need both to improve education and training systems in lagging regions and to widen access to these, as well as a need for enterprises in these regions to use the potential skills available more effectively and to adapt more rapidly to changes in technology and in the organisation of work.

GDP and other measures of the regional economy

GDP per head in terms of PPS is the key indicator for assessing levels of economic development in regions and disparities in this. Its position is enshrined in the Structural Funds regulations and in Article 87(3)a of the Treaty on competition policy, both of which have been unanimously approved by the Member States. It is also conventionally used by numerous international institutions (including the World Bank, IMF, OECD and UN) as well as universities and research institutes, central banks and private enterprises as the single most useful measure of economic performance. The reasons for this include the following:

- GDP is, almost by definition, the best measure of the output of the regional economy.

- Leaving aside problems of commuting, which are significant only in a few cases, and of income from capital, it is a good proxy for regional income before public and private transfers. For cohesion purposes, it is important, at least initially, to measure the regional income taking account only of what is generated locally without including transfers from outside or those going outside. To give an obvious example, a region which had a low level of production might well have a much higher level of final income because of large social security transfers, but it would still be a less favoured region.

- GDP per head is statistically robust and is usually readily available at regional level for a reasonable period of time.

- Since price levels vary considerably between countries at prevailing exchange rates, it is necessary to adjust for this in order to measure the real command over goods and services of a given sum of money. Expressing GDP in terms of purchasing power standards (PPS) is a means of making such a correction.

At present, the PPS adjustment is calculated on the basis of national price levels and, therefore, leaves out of account regional differences in prices, which can be significant particularly where there are wide variations in income between regions. The cost of living, for example, is much higher in the north of Italy than in the south and, in principle, this should be allowed for in the regional GDP per head figures.

Despite the usefulness of GDP per head at PPS, it is of interest to consider other measures of the regional economy (see Table A.4).

Changes in GDP per head in PPS over time

It is important to recognise that GDP per head in PPS terms can change in one economy relative to another not only because of a difference in the rate of GDP growth in real terms (so-called 'real' convergence) but also because of a change in relative price levels. This potentially complicates the analysis of changes over time insofar as a relative increase in GDP per head which arises from a reduction in the relative price level – or from a re-estimation of the PPS adjustment – might have slightly different implications than one which results from a relative growth in real GDP.

GDP without the PPS adjustment: wider disparities, but a similar pattern

The simplest alternative indicator is to measure GDP per head in Euros rather than PPS. This shows the market value of output in each region rather than real income levels (see Map A.2).

Such a measure increases the scale of differences between regions. Since price levels are positively correlated with the wealth of a region, low GDP per head in less prosperous regions tends to be partly offset by a lower cost of living.

The most striking change is for regions with GDP per head furthest from the EU average. The level in Portugal as whole falls from 76% of the EU average (in PPS terms) to just 50%, below that of Greece. Conversely, in Sweden and Denmark, where the cost of living is very high, GDP per head is markedly higher when measured in terms of Euros (23% higher in the latter).

Extending the comparison to include the applicant countries, their average GDP per head is reduced from 38% of the EU15 average in PPS terms to just 16% in Euro terms. The lowest levels of GDP per head are in eastern areas. Even in Slovenia, GDP per head in Euros is little more than 45% of the EU average as opposed to nearly 71% in PPS terms.

GNP: allowing for income transfers

As stated above, GDP has the advantage of excluding income transfers and so relates more closely to the income generated within an economy. Such transfers, however, are not confined to those made for redistributive reasons but also include remissions or receipts of income by both individuals and companies, which can significantly affect the income available for expenditure on goods and services in an economy. Remissions from migrant workers have been an important source of income for a number of countries and regions in the past (such as southern Italy, for example), while the repatriation of profits by foreign-owned enterprises, and the receipt of profits earned abroad, are equally important in a number of economies at the present time. These flows of income to and from abroad are included in the measure of gross national product or GNP.

Unfortunately, data are not available for GNP by region in the Union, largely because of the difficulties of measuring income flows at this level. Nevertheless, data for GNP at national level are available and these show some differences from those for GDP for a few Member States. In particular, GNP for Ireland was over 13% less than GDP reflecting the importance of profits earned by foreign-owned enterprises, which are not necessarily spent in Ireland (though equally, neither do they necessarily go out of the country). In 1999, therefore, GNP per head in Ireland in terms of PPS was below the EU average whereas GDP per head was well above.

For similar reasons, GNP in Luxembourg was also substantially lower than GDP, by almost 10%. In other Member States, however, apart from Greece where inflows from abroad added just under 3% to income, the difference between GDP and GNP was around 2% or less.

Median consumption: an indicator of the standard of living of the average household

Median consumption per head, measured in PPS terms, is another useful indicator. This is derived from household budget surveys and measures the goods and services purchased by households and individuals rather than produced in the economy. In contrast to GDP, it, therefore, includes imports and excludes exports, which can be quite significant at the regional level. It also implicitly excludes income transferred abroad; which as noted above is significant in the case of Ireland.

Since the distribution of incomes is generally quite skewed, the median income is less than the mean and more indicative of a typical household or person. Because consumption tends to fall below income by more, the higher the growth in the economy, it will usually lag behind GDP per head as economies converge.

The indicator, however, is not available in the EU at a regional level. Nevertheless, national comparisons are interesting. Portugal has the lowest level, with a typical consumption of only 58% of the EU average, largely because of the skewness of income distribution. The other two cohesion countries – Greece and Spain – however,

have very similar levels of median consumption and GDP in relation to the rest of the EU.

Green accounting: closer to implementation, but much work remains before it is operational

A final concept of interest is 'green accounting', the attempt to incorporate environmental costs into economic figures. The case for green accounting is that the normal measure of GDP, calculated at market prices, leaves out of account the depletion of exhaustible resources and other costs imposed on the environment by production and associated activities.[7] Green accounting is, therefore, an attempt to measure the 'true costs' of the loss of scarce resources and the environmental damage caused by production and to incorporate explicit estimates of these, in terms, for example, of the cost of developing alternative resources or cleaning up the environment, in the calculation of GDP.

The problem of putting monetary values on items which are to a large extent intangible is, however, severe and as yet no generally accepted estimates have been produced of 'green' GDP. A more limited approach is to produce estimates of the pollution produced in particular sectors or to distinguish environmental expenditure and to list these figures alongside the relevant part of the national accounts as an addendum item. This, however, tends to mean that such estimates are viewed as very much subsidiary to the GDP figures. The Commission has opted for an intermediate approach, that of satellite accounts for specific assets, such as forests, mineral stocks, water reserves and air quality. Where possible, monetary values are calculated for specific aspects of each, such as the value of forests, in terms of the timber they produce or the recreation they provide, or the costs of cleaning up water reserves to a particular standard. Otherwise physical values are calculated, such as for CO_2 emissions.

Collaboration over the past three years between the Regional Policy and Environment DGs and Eurostat in the Commission and various national statistical offices[8] has begun to yield results and a comprehensive dataset on the environment is in the process of being produced and categorised by different kind of asset, though there are many gaps, especially in respect of monetary values. This is generating some surprising results. For instance, forests in the EU (valued at around EUR 400 billion) are worth twice as much as total oil and gas reserves (around EUR 200 billion). This, moreover, counts only their value in terms of timber and the figure would be much higher if it included their intrinsic or recreational value.

This is consistent with World Bank estimates[9] that, even in rich countries, total natural assets were, on average, worth as much as, or more than, total physical assets such as buildings or machinery.

However, there is still much to be done to make the most of such estimates. It is planned gradually to produce them more systematically and regularly and to generate a consistent time series. A regional breakdown, however, is a long way off.

1 In the First Cohesion Report and in the Fifth and Sixth Periodic Reports, the top and bottom 10 and 25 regions were used to measure disparities. Since the NUTS regions vary in size, however, this is liable to give misleading results over time if the population covered by the regions in question changes significantly. This is all the more the case with the addition of the applicant countries, which increases the number of NUTS 2 regions to 260. The figures reported in the text therefore relate to the regions with the highest and lowest levels of GDP per head which account for 10% or 25% of population in the EU.

2 These are regions which are considered by Eurostat to have relatively high or low GDP per head largely because of commuting, which accordingly omits cases where GDP is produced to a significant extent by people living outside the region or where the people living in a region derive their income to a significant extent from elsewhere. See Eurostat (2000) 'Statistics in focus', Theme 1, 1/2000.

3 Some of this is due to commuting and the non-inclusion of people contributing to GDP in the population figures.

4 See the Box in section 1.1 of the 6th Periodic Report for a fuller explanation of this effect.

5 These are Estonia, Latvia, Lithuania, Poland, the Czech Republic, Slovakia, Hungary, Slovenia, Romania, Bulgaria, Cyprus and Malta.

6 The notable exception being the inclusion of Prague, where part of the high GDP per head is almost certainly due to commuting.

7 For further reading on the theory and practice of green accounts, see World Bank (1996) 'Green national accounts: policy uses and empirical experience'.

8 See Eurostat (1999) 'Towards environmental pressure indicators for the EU' and Eurostat (forthcoming) 'Towards an environmental accounting framework for the EU'.

9 World Bank (1995) 'Monitoring environmental progress'.

I.2 Social cohesion

For the past three years, there has been strong employment growth across the Union, which has both reduced unemployment significantly and provided job opportunities for people entering the labour market for the first time or returning after a spell of inactivity. Most of the jobs created have been in services, as in previous years, the majority in advanced business and communal services – health care, education, recreational and cultural activities – many of which demand a high level of skill and education from the people who perform them.

At the same time, partly because of the shift towards advanced services and high-skilled jobs, labour shortages have begun to emerge on a significant scale in many parts of the economy, even in areas where unemployment remains relatively high. These shortages are likely to get worse as the recovery proceeds, particularly in information technology where the demand for labour is growing rapidly and where already a substantial number of jobs remain unfilled. Unless they are effectively addressed, they will tend increasingly to slow down the pace of development.

Nevertheless, there remain substantial disparities in levels of employment and rates of unemployment between different parts of the Union as well as between different social groups, which manifest themselves in pockets of deprivation and exclusion.

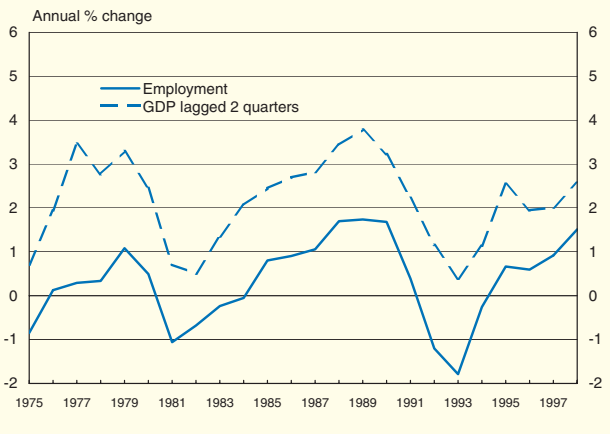
Employment and unemployment

Unemployment and the labour market

Unemployment in the EU is declining at present, reflecting the continuing growth of the economy and labour market reforms, which seem to be associated with an increased rate of net job creation for a given growth in GDP. The rate has, therefore, fallen from 10.7% in 1997 to 8.3% in August 2000 and is set to fall below 8% in 2001, a level last seen before the recession of the early 1990s. Despite this encouraging trend, unemployment remains unacceptably high in many parts of the EU, though if economic growth can be sustained at its present rate, over the coming decade it could gradually cease to be the major economic problem facing the EU, which it has been for the past 20-25 years.

Since the early-1970s, unemployment has increased rapidly during recessions but fallen more slowly during periods of economic recovery, while regional disparities in levels have remained significant (see Graph A.1 in the Annex). However, over the period of recovery since 1994, when unemployment in the EU reached a peak of 11.2%, the process of job creation has increasingly gained strength. Nevertheless, it is too early to be sure whether the cycle of falling unemployment followed by a rebound to a higher level is at an end. This depends on both maintaining economic

4 Growth of employment and GDP in the Union, 1975-98



growth at around its present level, or preferably above, which in itself should result in a high rate of net job creation (Graph 4), and increasing the employment-intensity of growth above the long-term trend of the past 20 years.

Unemployment combined with growing skill shortages

At the same time as unemployment is falling, labour shortages are emerging as an increasingly important obstacle to growth right across the EU. This was reported explicitly in the National Action Plans for 2000 of Belgium, Denmark, Ireland, the Netherlands, Finland, Sweden and Italy, though in the last, predominantly in the north of the country. Moreover, recent surveys of employers in other Member States have in most cases pointed to the difficulty of recruiting staff with the requisite skills as a major problem hindering expansion.

The coincidence of relatively high levels of unemployment and labour shortages ought not to come as a surprise. It essentially reflects the highly differentiated nature of the labour market and the lack of coherence between the growth of demand for labour and the skills on offer among those looking for a job. Indeed, recruitment difficulties tend to be reported in particular sectors even in periods of recession. As recovery gathers pace and as unemployment falls – or, more accurately, as the excess supply of labour diminishes – it is only to be expected that labour shortages, or skill bottlenecks, will become more serious, the more so, naturally, in regions where unemployment is relatively low, but also in other areas where the skills of the unemployed do not match the demand of employers. If economic growth at present rates is sustained over the longer term, the problem of skills imbalance could well be compounded by the projected slowdown in labour force growth, or decline in some regions, over the next 10-15 years (see the section on demographic trends below).

Although recruitment difficulties are at present reported in some parts of the Union in all sectors, from information technology to agriculture and retailing, it is evident that there is a growing shortage of workers with IT skills in all Member States. According to the Commission report on job opportunities in the Information Society, up to 500,000 jobs are currently vacant because of the lack of people with the requisite skills to fill them. Studies suggest that the problem is likely to get worse in the future, as, indeed, is the case in other parts of the world, the US especially. In the longer term, therefore, this could come to exercise an increasing constraint on economic growth and employment creation in the EU. It is a problem which can be tackled both by expanding the number of people trained in IT skills and adapting education and training systems to accomplish this and by encouraging the inward migration of those with the necessary skills, or the education to acquire them, from other countries (an approach at present being followed by the US).

Wide disparities in employment remain between Member States ...

As economic recovery continued in the EU, employment increased by over 2 million in 1999, or by 1.4%, slightly higher than in 1998 (1.3%) and the highest growth rate of the 1990s. The number employed in 1999 was, therefore, for the first time higher than in 1991 at the start of the recession. The employment rate, however – the proportion of those aged 15 to 64 in work – at 62.1% was still slightly lower than at the beginning of the decade.

Despite a general improvement in labour market conditions, large differences still exist between Member States. Between 1997 and 1999, employment growth varied from over 3% a year in Ireland and Spain to under 1% a year in Germany, Italy and Austria. In general, those Member States with above average GDP growth also recorded relatively high growth of employment.

Since 1994, there has only been a slight narrowing of disparities in employment rates across the Union, stemming partly from relatively large increases in employment in Ireland and Spain, where the proportion of working-age population in work is below average. This convergence is likely to continue if economic recovery is sustained, though above average employment growth needs to spread to Italy and Greece, in particular, if disparities are to be narrowed significantly. In 1999, the employment rate was below 60% in Spain and Belgium (if only slightly), while it exceeded 70%, the target set for the EU in 2010 by the Lisbon Summit, in Denmark, the Netherlands, Sweden and the UK.

... but are even wider between regions

Disparities in employment are even more substantial between regions than between countries within the EU. In 1999, the employment rate in the top 10% of regions in the EU (defined as those with the highest rates accounting for 10% of total population) averaged 77%, whereas the employment rate in the bottom 10% (defined in an equivalent way) averaged under 44%. As at the beginning of the decade, most of the regions in the top group are located in the UK, most of those at the bottom in Italy and Spain (Map 2).

The extent of regional disparities varies significantly between Member States. While they are very narrow in some countries (the Netherlands, Austria and Sweden), they are extremely wide in others (particularly Italy, where the gap between high employment regions in the North and low employment regions in the South is over 25 percentage points, but also Spain and Portugal – around 15 points).

There is little sign of any marked reduction in disparities over the 1990s. While across the EU as a whole, they have narrowed since 1997, this followed a widening over the early 1990s (see Graph A.2). In Italy, Portugal and, to a lesser extent, Spain, the gap in regional employment rates appears to have widened over the period of recovery. Moreover, in Greece, employment rates fell in most regions over the 1990s.

Achieving a more balanced development in terms of employment remains one of the biggest challenges for the Union in the future and one which is likely to require continued policy intervention, in developing regions, to help strengthen their economic base, and in those undergoing restructuring, to help smooth the shift to growing sectors of activity.

The gender gap in employment remains pronounced despite gains made by women

The number of women in employment has risen strongly in the EU over the past ten years. As a result, the gap in employment rates between men and women narrowed significantly over the 1990s, by some 5 percentage points, though in 1999, it was still some 19 percentage points. Moreover, it should be noted that over 70% of net additional jobs going to women between 1994 and 1999 were part-time. In the latter year, around a third of all women in employment in the EU worked part-time as opposed to 6% of men.

The gender gap is even wider in many Member States and regions. In regions with a high rate of net job creation, both men and women tend to benefit by being able to find employment, while job shortages in low employment regions generally seem to hit women harder than men. The gender gap is, therefore, narrowest in the three Nordic countries and the UK and widest in Italy, Spain and Greece.

The small gap in many – but by no means all – parts of Northern Europe reflects, on the one hand, a longer tradition of gender equality, positive social attitudes towards women working and child-care provision. On the other hand, it also reflects a high proportion of part-time employment among women (see Map A.3). Indeed, the relative number of women with full-time jobs in lagging regions is not very much lower than in the rest of the EU.

The growth of part-time working is closely related to the development of the service sector, in which firms tend to be more flexible over working hours but in which there is also a growing need to employ people at weekends and in the evenings. Women therefore have more possibility for combining paid employment and family responsibilities, so increasing their ability to pursue working careers.

Large-scale job losses in agriculture

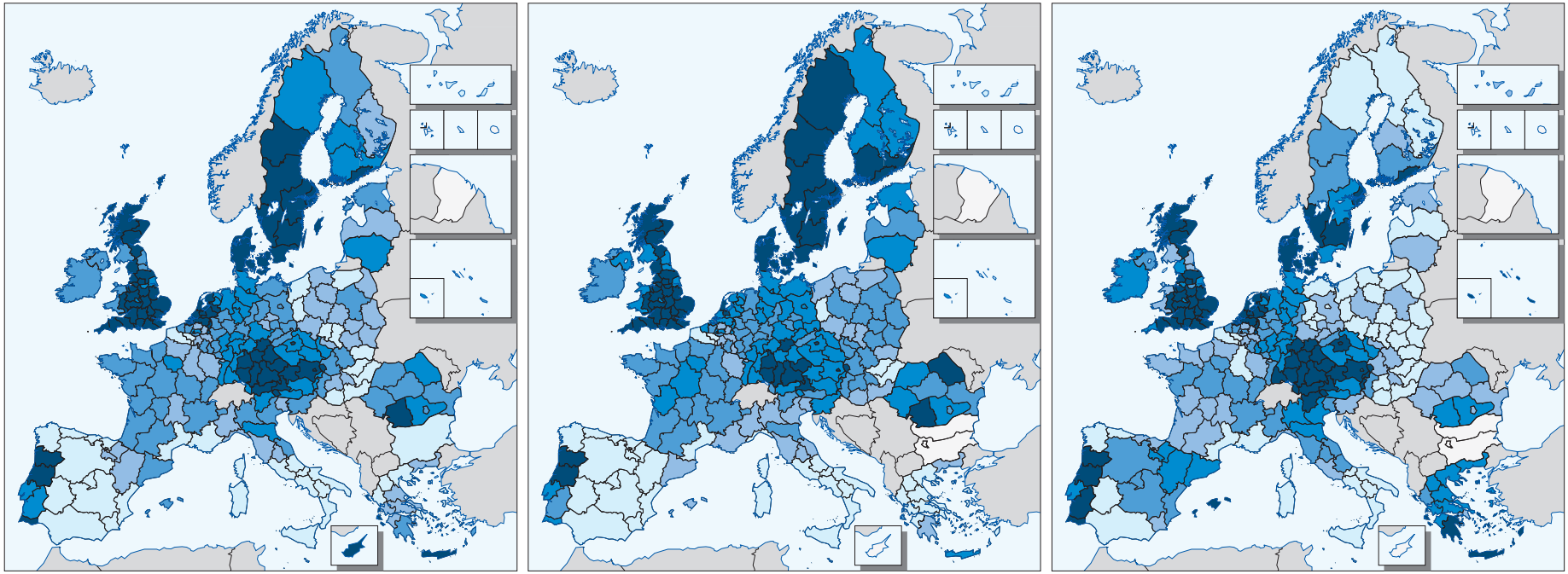
Employment in agriculture in the EU has declined markedly, from 7.6% of the total employed in 1988 to 5.6% in 1993 and 4.4% in 1999. The largest decline between 1993 and 1999 occurred in Ireland (by 4.5 percentage points) and Greece (4.3 points).

The importance of multiple jobs has also remained much the same, 28.7% of farmers having a paid job outside agriculture in 1997. In Sweden, Finland and Germany, the figure was over 45%. In the southern Member States, where 26% of farmers had multiple jobs, almost 63% of the work force was employed part-time.

Services are key to employment growth

Over the past 25 years, all of the rise in employment in the EU has occurred in services while jobs in industry and agriculture have declined. Over the period of 1994 to 1999, the share of employment in services rose by some 2½ percentage points, continuing a long-term shift of both employment and output

2 Employment rates, 1999



Total **Female** **Male**

% of population aged 15-64

- < 56.0
- 56.0 - 60.2
- 60.2 - 64.4
- 64.4 - 68.6
- ≥ 68.6
- no data

EU26 = 62.3
Standard deviation = 8.4

D (Sachsen): NUTS1
IRL, BG: NUTS0
SK: 1998

Sources: Eurostat and NSI

% of female population aged 15-64

- < 45.1
- 45.1 - 50.7
- 50.7 - 56.3
- 56.3 - 61.9
- ≥ 61.9
- no data

average = 53.5
Standard deviation = 11.2

D (Sachsen): NUTS1
IRL: NUTS0
SK: 1998

0 250 1250 km

% of male population aged 15-64

- < 66.3
- 66.3 - 69.7
- 69.7 - 73.1
- 73.1 - 76.5
- ≥ 76.5
- no data

average = 71.4
Standard deviation = 6.9

D (Sachsen): NUTS1
IRL: NUTS0
SK: 1998

towards this sector, which is evident in all Member States.

Employment growth in services, however, has been lower in the EU over the 1990s than in the US and this has been combined with more job losses in agriculture and industry. Indeed, in the EU, growth of employment in industry has been relatively small even over the period of economic recovery since 1994, though this is partly due to a significant reduction in Germany, where the pace of recovery has been modest.

The development of services has occurred at different rates across the Union. In 1999, the general pattern of employment (Map 3) is for the highest employment regions – predominantly located in the UK, Netherlands and the three Nordic countries – to have a large share of jobs in services, and the lowest employment regions – largely located in the Mediterranean – to have a high concentration of jobs in agriculture. In between, there are regions with a high share of employment in industry – predominantly located in an arc covering eastern France, parts of Germany and northern Italy.

Overall, services account for a major part of disparities in employment rates across the EU. Most of the additional jobs which exist in high employment regions as compared with low employment ones are in services, though mostly in the more advanced sectors, education, health care, business and financial services, where skill and education requirements are relatively high. This underlines the importance of a well-educated work force for boosting employment as well as the development of the knowledge-based economy.

Regional disparities in unemployment remain pronounced

Unemployment varies substantially between regions in the EU (Map 4). Despite economic recovery, unemployment rates were still over 20% in some parts of southern Europe in 1999. There were also, however, a number of areas in northern Europe undergoing restructuring, where rates were well over 15%.

Regional disparities in unemployment have widened over the 1990s, following the reduction which occurred in the high employment growth years of the late 1980s. While economic recovery has reduced disparities slightly since 1995, it has so far failed to offset the widening during the earlier period of recession. Accordingly, while unemployment in regions where rates were lowest (taking those accounting for 10% of total population) averaged 3% in 1999, much the same as in the early 1970s, it averaged 23% in those where rates were highest (excluding the French DOMs), much higher than 25 years ago.

The regions with the lowest unemployment in the EU were much the same in 1999 as 10 years before, as were those where rates were highest. Much the same is true in Member States, where regional differences are similarly wide (Graph 5). As in the case of employment rates, differences between regions are greatest in Italy, where, in 1999, the rate in those with the highest levels (in the south) was almost 25 percentage points higher than in those with the lowest (in the north). On the other hand, in all regions of Austria, the Netherlands and Portugal, unemployment was below the EU average.

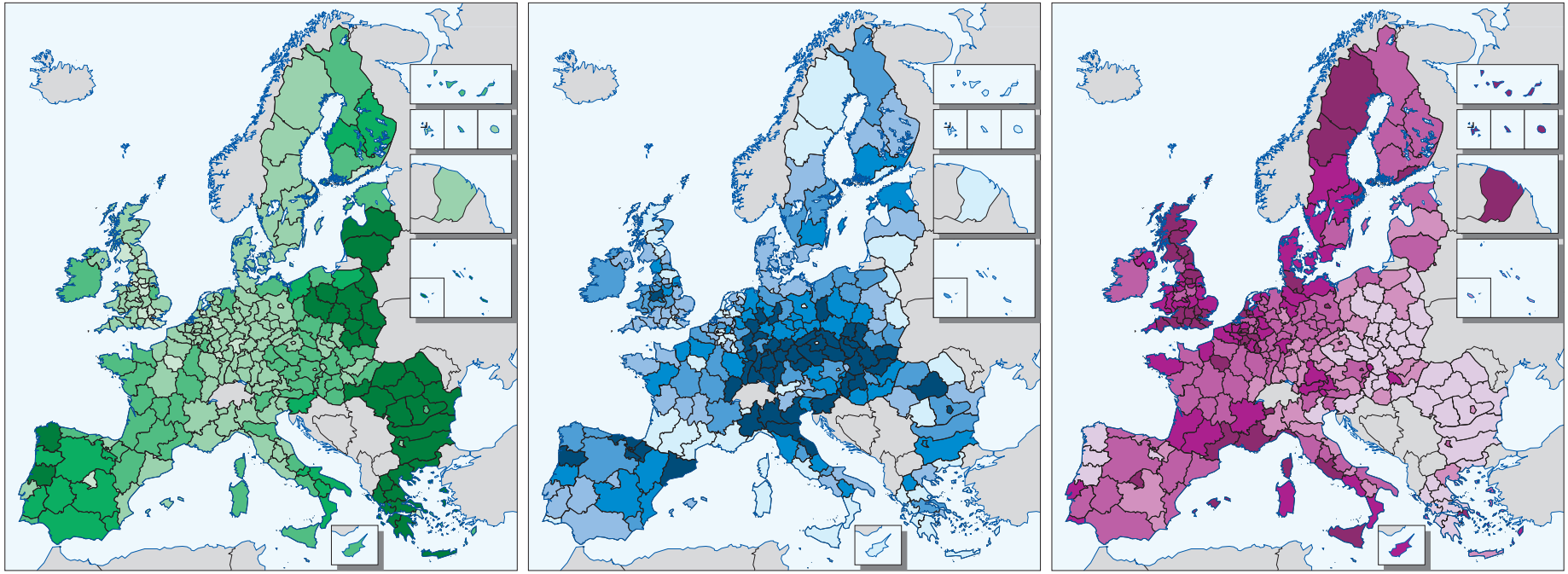
Long-term unemployment falling but still a serious problem

The fall in unemployment in recent years has been accompanied by a reduction in long-term unemployment. Between 1997 and 1999, the number of people who had been out of work for a year or more declined by more than overall unemployment, from 49% to 46% of the total unemployed, suggesting that active labour market measures combined with high rates of net job creation have improved access to employment for those most disadvantaged on the labour market.

The rate of long-term unemployment in the EU, however, is still higher than at the beginning of the 1990s. It is particularly high in southern Italy, in a number of Greek regions and in Belgium, where over 60% of those out of work were long-term unemployed in 1999. By contrast, the proportion was under 20% in a number of regions in Austria, the UK and Finland (Map 5).

Overall, long-term unemployment is much higher in regions with high overall unemployment and has declined hardly at all over the economic recovery in the lagging regions. This reflects the persistence of structural problems in these areas, such as mismatches between the jobs on offer and the skills available on the labour market, which are unlikely to be resolved simply by higher rates of economic growth at the national or EU level, which need to be

3 Employment by sector, 1999



Agriculture

% total employment

- < 1.5
- 1.5 - 6.0
- 6.0 - 10.5
- 10.5 - 15.0
- ≥ 15.0
- no data

EU26 = 8.3
Standard deviation = 11.2

EL, RO, SK: 1998
BG, LT, LV: 1997
D (Sachsen): NUTS1
IRL: NUTS0

Sources: Eurostat and NSI

Industry

% total employment

- < 24.35
- 24.35 - 28.05
- 28.05 - 31.75
- 31.75 - 35.45
- ≥ 35.45
- no data

EU26 = 29.9
Standard deviation = 7.4

EL, RO, SK: 1998
BG, LT, LV: 1997
D (Sachsen): NUTS1
IRL: NUTS0

0 250 1250 km

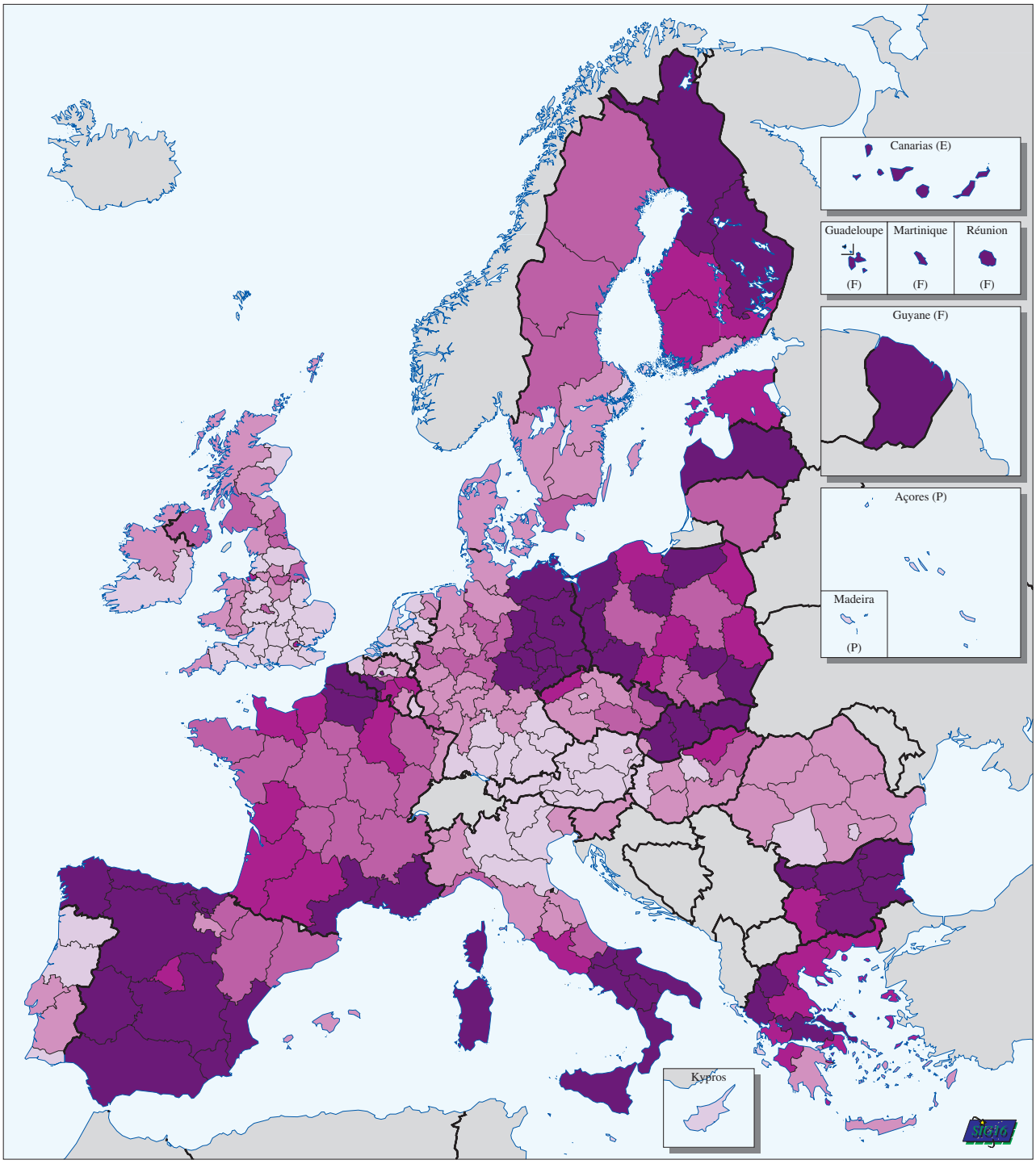
Services

% total employment

- < 52.35
- 52.35 - 58.65
- 58.65 - 64.95
- 64.95 - 71.25
- ≥ 71.25
- no data

EU26 = 61.8
Standard deviation = 12.6

EL, RO, SK: 1998
BG, LT, LV: 1997
D (Sachsen): NUTS1
IRL: NUTS0



4 Unemployment rates by region, 1999

% of labour force

- < 5.55
- 5.55 - 8.25
- 8.25 - 10.95
- 10.95 - 13.65
- ≥ 13.65

EU7 = 9.6
Standard deviation = 5.4
D (Sachsen) and F (DOM): NUTS1

Sources: Eurostat and NSI

0 100 500 km

combined with active measures to improve the employability of those affected and help them adapt to structural change.

Unemployment of young people declining in EU ...

Rates of unemployment in the EU remain much higher for young people under 25 than for older people and for women as opposed to men. Young people in the labour force are almost twice as likely to be unemployed as those of 25 and over. In Spain, Finland and Italy, youth unemployment was over 30% in 1999 and in some regions in southern Italy and Spain, over 50% (Map 5).

Despite the fact that most of the net additional jobs created over the past 10 years have gone to women, job growth has only just kept pace with the rising number of women joining the labour market. Consequently, unemployment among women is still much higher than for men in most parts of the EU, with rates for women exceeding 35% in parts of Spain and Italy.

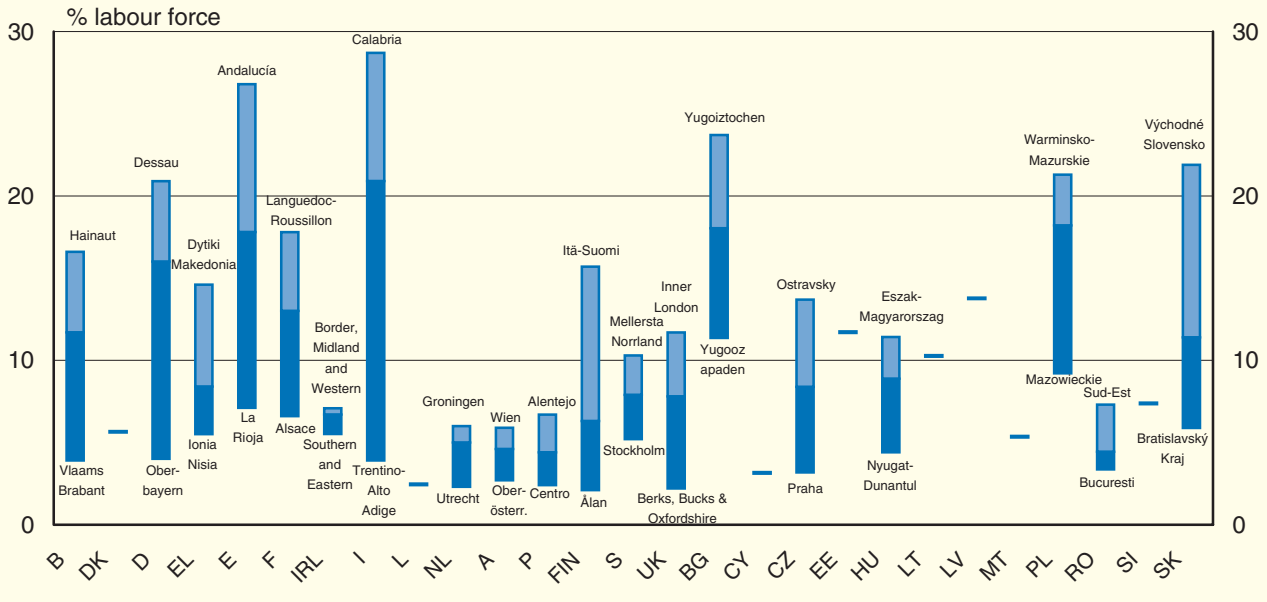
While unemployment of young people has declined by more than for those of 25 and over during the period of recovery, the rate for women has fallen by less than for men. Unlike in the case of the long-term unemployed, however, both young people and women have experienced a fall in unemployment in the most lagging regions.

Labour market developments in the candidate countries

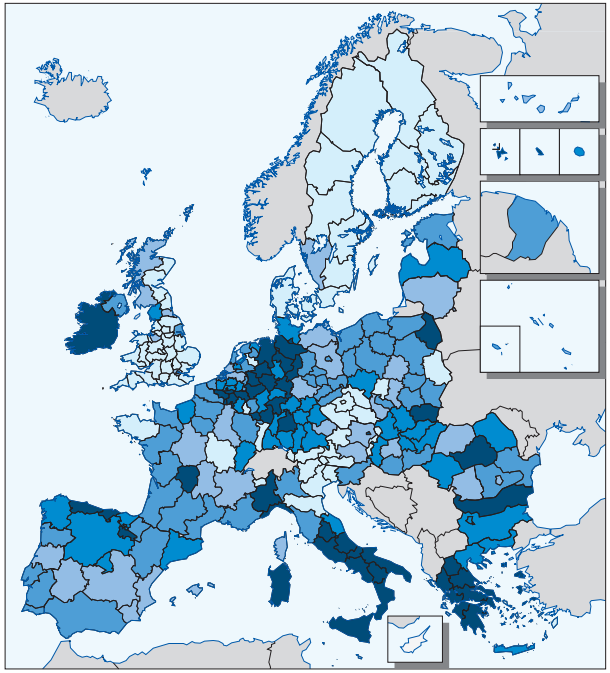
In recent years, the data available on employment and related developments in the candidate countries have improved significantly with the introduction of labour force surveys in most of them, on the same basis and adopting the same conventions as the EU Labour Force Survey conducted by Eurostat. However care should be taken in interpreting the figures which result from these surveys because, even though the conventions are the same, they reflect a different underlying reality.

In the candidate countries of Central Europe (CECs), employment has fallen significantly since the beginning of the transition as a result of a large fall in output as well as restructuring. In the CECs as a whole, the number employed is estimated to have fallen by 15-20% between 1989 and 1997, with the largest fall occurring in the early years of transition (1989 to 1993). By 1994-95, conditions had stabilised and in a number of countries, employment began to rise, though by not nearly enough to compensate for the earlier job losses. In 1998 and 1999, economic

5 Unemployment rates by country and regional extremes, 1999



5 Unemployment, 1999



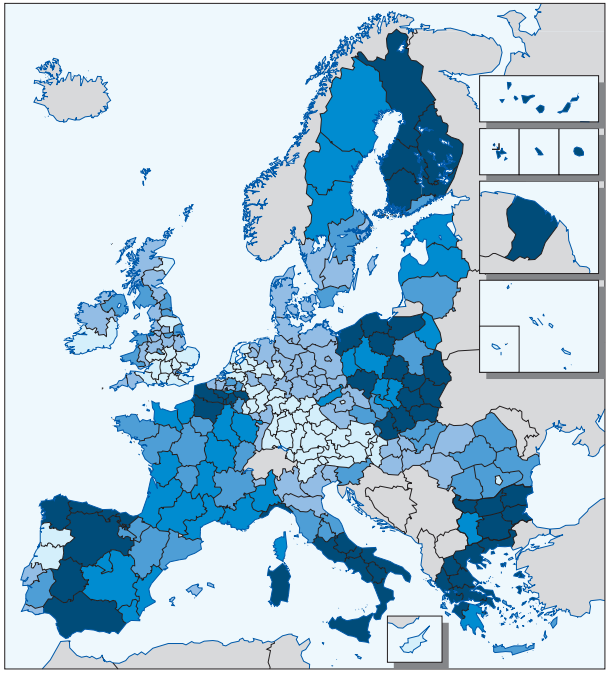
Long-term unemployment

% of total unemployed

- < 33
- 33 - 40
- 40 - 47
- 47 - 54
- ≥ 54
- no data

BG, SK: 1998; IRL: 1997
IRL: NUTS0

Source: Eurostat



Youth unemployment rate

% of youth labour force, 15- 24

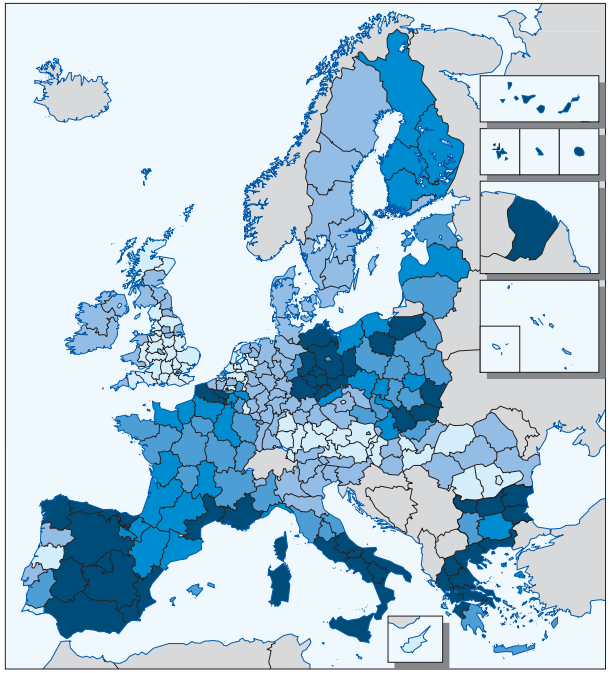
- < 9.2
- 9.2 - 15.6
- 15.6 - 22.0
- 22.0 - 28.4
- ≥ 28.4
- no data

EU27 = 18.8
Standard deviation = 12.8

CY, MT: 1998
D (Sachsen) and F (DOM): NUTS1

Sources: Eurostat and NSI

0 250 1250 km



Female unemployment rate

% of female labour force

- < 5.35
- 5.35 - 9.05
- 9.05 - 12.75
- 12.75 - 16.45
- ≥ 16.45
- no data

EU25 = 10.9
Standard deviation = 7.3

MT: 1998
D (Sachsen) and F (DOM): NUTS1

Sources: Eurostat and NSI

growth slowed down again and employment began to fall in most countries, most especially in the Czech Republic, Slovakia and Estonia. In Hungary, however, partly because of the earlier implementation of economic and labour market reforms than in other countries, GDP continued to grow and employment increased by around 3% a year between 1997 and 1999.

In 1999, the overall employment rate of the candidate countries averaged just under 61% of working-age population, only slightly lower than in the EU. Disparities in employment rates, however, widened between countries over the 1990s as employment fell, the scale of decline reflecting, on the one hand, the success of the transition and, on the other, the extent to which jobs remained protected against market forces, as well as the extent of employment in subsistence agriculture. In 1999, the employment rate ranged from some 54% in Bulgaria to 66% in the Czech Republic.

Regional disparities in employment in the candidate countries are narrower than in the EU, but still substantial. In the top 10% of regions (defined, as above, as those with the highest rates accounting for 10% of their total working-age population), the employment rate averaged almost 70%, in the bottom 10%, it was under 52%. Disparities are also wide in a number of countries, reflecting the difference between the capital city region and the others (in Slovakia, the gap between the top and bottom 10% of regions was 17 percentage points).

Employment of women in the CECs has, in many cases, declined by less than that of men over the transition period, partly because of the concentration of jobs losses in industry, partly because of the growth of service activities. Although the employment rate of men exceeds that of women in all candidate countries, the gender gap has remained smaller than in most EU Member States. Moreover, many fewer women work part-time in the former than in the latter and the difference between men and women is much less pronounced. (Overall, some 8% of all those in employment work part-time in the candidate countries as opposed to 18% in the EU and women account for only 58% of all part-timers as against 80% in the EU.)

The changing sectoral pattern of employment in candidate countries

Economic transition in the CECs implies a marked shift in the sectoral pattern of employment, though comparison of the present structure with that in the EU suggests that there is still a long way to go. There remain significant differences between regions both in the structure of employment and in unemployment (see Box).

Employment in industry is estimated to have fallen by between 25-50% in the CECs over the 1990s, but despite this, the proportion of workers employed in declining industries in many regions remains high.

Many regions with high employment in agriculture have also suffered a disproportionate loss of jobs, though agricultural employment in most candidate countries remains far above the level in the EU. In 1999, taking the countries together, it accounted for almost 22% of the total as against only 4.5% in the EU, indicating that the process of modernisation has still to be undertaken and that potentially severe social as well as economic problems remain to be tackled in the future.

Employment in services has risen significantly in all candidate countries, though by not nearly enough to compensate for the job losses in industry and agriculture. Services account for only around 46% of the total in work in the region as a whole compared with 66% in the EU, which indicates the scale of the change which lies ahead.

Overall, many regions in the CECs have a less diversified employment structure than their counterparts in the EU and, at the same time, have to contend with problems of high unemployment, poor infrastructure, low investment and lack of enterprise. The objectives of future regional policy in the CECs are, therefore, to diversify the sectoral pattern of economic activity, to strengthen infrastructure and support facilities, to identify locational advantages and development potential and to remove obstacles to growth.

Poverty

There has been growing concern about the issue of social cohesion over the past few years. Disparities

Four types of regional labour market developments in the CECs

Unemployment rates in the CECs were only slightly higher than in the EU in 1999 (10.2% on average as against 9.3%). Unemployment, however, varie significantly from region to region. Overall, four types of region in terms of labour market developments can be distinguished:

- The major metropolitan areas (most notably the capital cities) have experienced a significant rise in employment in the service sector and benefit from favourable geographical location, a high level of investment, a skilled labour force and better infrastructure endowment. These regions enjoy lower unemployment and higher wage levels compared to other regions. Job growth is fuelled mostly by newly established private-owned small and medium-sized enterprises and foreign investment. Most prominent examples are urban centres such as Prague, Bratislava and Budapest which have the lowest unemployment rates and the highest share of employment in services in their countries.

- The Western border regions, in part included in the above group, which were in an unfavourable, peripheral position during the previous regime, but which have benefited from their location since the transition began. Proximity to the EU, relatively well developed infrastructure, low labour costs combined with labour force skills have all contributed to stimulate markets and encourage investment. In addition, they have benefited from increased trade (such as cross-border retail) and tourism. In Hungary, western regions have witnessed falling unemployment in recent years and a positive inflow of investment as have those in Slovakia and the Czech Republic. Even Polish regions bordering Germany which have relatively high unemployment rates tend to have a more diversified industrial structure and more SMEs than other parts of the country. Overall, most of the Western border regions show a long-term positive trend in employment and economic development.

- The majority of the most disadvantaged regions are the rural regions located at the Eastern periphery of an enlarged EU. These tend to have relatively poor infrastructure, little investment and unfavourable economic structure characterised by a predominance of agriculture and low educational attainment of the labour force. The partial return to subsistence farming and outward migration has slowed down the rise in unemployment in some cases. In most of these regions, employment is falling. Structural reforms in agriculture are likely to lead to large-scale job losses in future years.

- Old industrial regions have been most adversely affected by economic transition. These have been severely affected by privatisation, enterprise restructuring and closures, the reorientation of trade from secure markets and the loss of subsidies. The decline of heavy industry has played a significant role in widening disparities in the CECs. These regions have failed to create new job opportunities and to attract new business or foreign investment. Most of these regions have high rates of unemployment and difficulties of re-integrating workers into the labour market because of their low and outdated qualifications. The most prominent example is the industrial north and west of Poland which has experienced large-scale decline. Many of the regions have yet to undergo significant restructuring which remains a major challenge and could cause serious social and economic problems.

between social groups and the overall dispersion of income seem to have widened in the 1980s and early 1990s, and this is often attributed to economic developments, in particular, globalisation, increasing competition on world markets, the information revolution and the resultant restructuring of the economy, as well as demographic trends and changes in society. The trend seems to have slowed down or even reversed itself since the mid-1990s, but disparities between social groups remain unacceptably high.

Social cohesion is not only an important goal in its own right, but it is also a key factor contributing to economic success. Regions which are unable to mobilise the economic potential of large sections of their population are handicapped in the increasingly competitive global market place, while disparities can breed social unrest which itself can damage economic performance.

Poverty high, especially in the cohesion countries

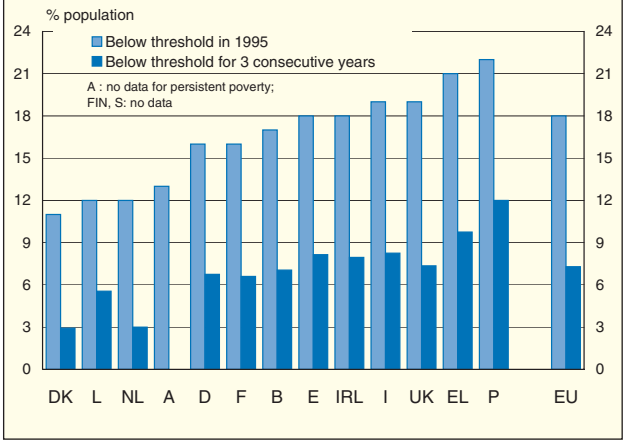
There are various definitions of poverty. The UN millennium summit, for example, defined an absolute measure of poverty as a state in which someone has

less than $1 a day to live on. Few people if any in the EU are in this position, though given price levels and the nature of the economy and society in the Union, a sum of significantly more than this would be necessary to prevent someone living in absolute poverty here. What this sum should be is very difficult to define. Partly because of this, it has long been decided that a relative measure is more relevant for assessing poverty in the Union, in the sense that this is more indicative of deprivation in relation to the living standards of people generally. Accordingly, the focus tends to be on the proportion of the population with incomes below a certain level relative to the average, though again there is scope for disagreement about the appropriate level to take.[1]

In practice, the main measure of poverty used in the EU at present is the Eurostat definition: the percentage of people with an income of 60% or less of the median income in the country in which they live.[2] Although this means that the poverty line, in terms of absolute values, differs between countries, it is indicative of relative deprivation in the country concerned.

Using this measure, 18%, or more than one in six, of people in the EU had an income below the poverty level in 1995. This proportion does not seem to have changed much in recent years, though the figures which exist on a comparable basis are only for the period 1993 to 1995, which is too short to determine much about changes. While early indications are that the proportion might have declined since 1995, this remains to be confirmed.

6 Population with income below the poverty line, 1995



The countries in which the proportion of people with poverty levels of income is lowest are Denmark, Luxembourg, the Netherlands and Austria (and probably Finland and Sweden as well, though they did not participate in the 1996 European Community Household Panel survey on which the figures are based). Not only are the poverty rates in these four countries only around 11-12%, but this is relative to a national income which is higher than the EU average (Graph 6).

At the other extreme, the countries where the poverty rate is highest are Portugal and Greece, in which 21-22% of the population have income below the poverty line. This understates the scale of the problem in an EU context, since these two countries have the lowest level of median income in the Union. A further point of interest is the persistence of poverty, as indicated by the proportion of people with income below the poverty line in each of the three years for which comparable data are available. This is clearly more important than the figure for a single year, which may reflect only a temporary state of affairs for some of those concerned. Persistent poverty in the EU is slightly less than half the figure for a single year, 7% of the people covered between 1993 and 1995 having an income below 60% of the median in each of these three years, as opposed to 17% in 1995 (the figure being lower than that quoted earlier because not all the people were surveyed every year).

There is some tendency for the persistence of poverty to be disproportionately higher in countries with high poverty rates in 1995. In Denmark and the Netherlands, persistent poverty affected only 3% of the population, only a quarter of the proportion in 1995, which means that not only is poverty low in these two countries, but for most, it is a temporary state of affairs. Conversely, in Portugal, which had the highest level of poverty in 1995, more than half (12% of the population) were affected by persistent poverty, while in Greece, the figure was only slightly less (10% of the population). The main exception to the general relationship is the UK, where the proportion with income below the poverty line in 1995 was relatively high (19%), but where only 7% of people had income below this level in each of the three years.

For the candidate countries in Central Europe, there are no comparable data available. The studies which have been undertaken, however, suggest that the figures might be higher than in the EU as income dispersion has widened over the 1990s due to the reduction

in employment and a decline in real wages of the less skilled. They also show that poverty in rural areas, on which research has been carried out, is a serious problem (see Box 'Rural income and poverty in the candidate countries').

Factors linked to poverty: unemployment, low education and one parent families

The causes of poverty are numerous, but here are a few factors which are strongly associated with low income, particularly on a persistent basis (see Table A.5). In the EU, six categories of people are at particular risk of having a poverty level of income: the unemployed, lone parent families, those with low education, those in retirement, families with many children and those of working-age not in employment (because of disability, for example).

A number of people fall into more than one of these groups. For example, a large proportion of the unemployed have low education. The first three characteristics, however, are the most noteworthy. In the EU as a whole – though not necessarily in individual Member States – the unemployed and lone parents are three times more likely than people generally to fall below the poverty line, reflecting in both cases the loss of income from employment (a disproportionate number of lone parents are not in work). Many of these and others with low incomes have low educational attainment. Moreover, the information revolution is likely to mean that poor education will become a more important determinant of poverty in the future.

The main characteristics of those with poverty levels of income differ between Member States, reflecting variations in both social policy and social structure. For example, the unemployed are at particular risk in the UK, where they are four times more likely to have low incomes than people generally, while in Denmark, they are only slightly more at risk than average. This reflects the more comprehensive and generous unemployment benefit system in the latter than the former. Nearly half (46%) of lone parents and their children have poverty levels of income, largely because they are not in paid employment, though the situation varies markedly from one country to another, reflecting, in particular, levels of childcare provision and support. The families concerned are most at risk in the UK and Ireland, where they are 5 or 6 times more likely than average to have income below 60% of the median. Conversely, they are at relatively low risk in Portugal, Spain, France Belgium and Italy – indeed, in Italy (where the risk of poverty is highest for large families), they are at no more risk than other households.

Links between education and earnings: the implications of a single market for graduates for cohesion countries

The link between education and income levels is of particular interest (see Graph A.3). While in all Member States, income increases significantly with educational attainment levels, people with university education or the equivalent tend to have similar income levels (adjusted for cost of living) across the EU, which suggests perhaps the emergence of a single market for graduates. Although many obstacles remain, such as a lack of transferability of qualifications or language difficulties, there are signs of increased international mobility among young graduates, in particular. A possible effect of this is a trend towards equalisation of graduate pay across countries, while earnings of those with lower qualifications continue to vary . The widening income gap which results in the less prosperous countries may put increasing pressure on social cohesion.

An uncertain long-term trend

The factors underlying poverty levels of income give mixed messages for long-term trends in social cohesion. On the one hand, continued economic growth and higher levels of employment may reduce the proportion of people with low income, insofar as the relative numbers without earnings from work are reduced. On the other, social trends mean that the number of lone parent families may continue to increase. Moreover, while education levels are rising across the EU, especially in the lagging regions, the growing dependency on information technology, and the high level of general education which is a precondition for being able to use this effectively, threatens to put those with low education levels at an increasing disadvantage.

Transfers: an important weapon in the fight against social exclusion

Social transfers (other than pensions), which account for 9% of total household income in the EU, make a significant contribution to maintaining social

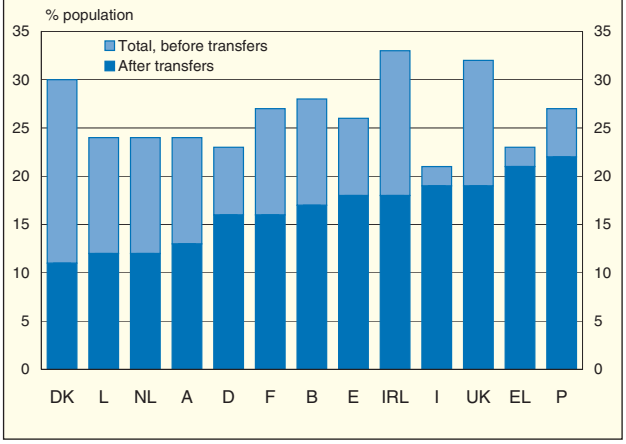
cohesion. Over half go to the poorest 20% of the population and make up over half their final income.

The effect of social transfers is evident if the proportion of people below the poverty line is compared with what it would be in the absence of transfers (Graph 7 and, in Annex, Graph A.4). In most Member States, transfers (in this case including pensions, some of which are from private sources) reduce the poverty rate by 30-40%.[3] In Denmark, the figure is higher, while in Italy and Greece, and to a lesser extent Portugal, social benefits have much smaller effects on the distribution of income, reflecting both their smaller scale and less targeting on those with the lowest incomes.

In the UK and Ireland, in both of which social transfers reduce poverty rates substantially, the high proportion of people with low income is to a large extent due to a wide dispersion of income before transfers, which in turn reflects the wide dispersion of wages (as revealed, for example, by the Eurostat, Structure of Earnings Survey for 1995).

Despite the contribution of social transfers to maintaining social cohesion, it should be emphasised that, retirement pensions apart, they tend to tackle the symptoms rather than the underlying causes of poverty. As such, they do not in themselves provide a long-term solution to the problem. It is therefore important for them to be accompanied by structural measures aimed at tackling the root causes, in particular, unemployment, low education and inadequate skills, a lack of child-care support facilities and so on, which will also help to increase the growth potential of the economy.

7 Population with income below the poverty line before and after transfers, 1995



Rural income and poverty in candidate countries

In most countries, agricultural income has declined significantly since the beginning of transition. This has been particularly marked in Poland, Slovakia and Romania. There are a number of reasons for this trend. First, at the beginning of transition, there was a sharp adjustment to world market prices, where trade was liberalised leading to a reallocation of resources in the agricultural sector. This was associated with declining terms of trade as input prices rose and producer prices fell. In many countries farmers reduced intensity of input use and shifted, particularly in sectors dominated by small scale farming, towards labour-intensive production systems. Low opportunity costs of labour, linked to more general economic restructuring and lack of alternative sources of employment in rural areas supported this tendency. The result has meant that farm incomes, which before transition were at or above national wage levels, are now in many countries considerably lower than national wage levels.

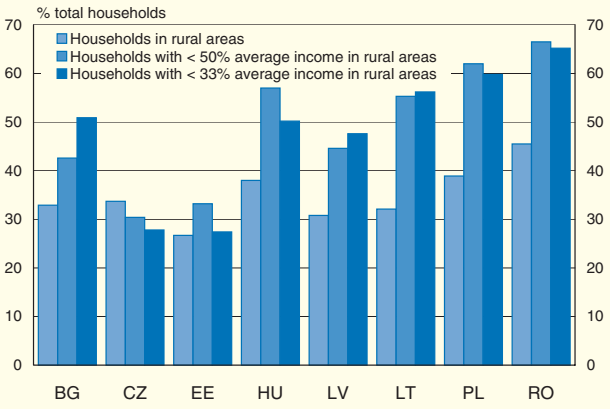
The picture is, nevertheless, varied across the candidate countries. Agricultural income per labour unit has remained relatively high in the Czech Republic and Hungary and to a lesser extent in Slovakia. In contrast, incomes are far lower in the remaining countries, particularly in Poland and Romania, reflecting very high levels of employment in agriculture combined with low productivity. In all candidate countries, current evidence would suggest that agricultural labour incomes are considerably lower than in the European Union, even when adjusted for purchasing power. In contrast, income per hectare remains relatively high in almost all countries except Poland and the Baltic States, particularly when the purchasing power of farm income per hectare is compared with the EU. It is, therefore, important to stress the considerable variations in factor combinations and income potential across the CECs.

Without major restructuring, the prospects for agricultural labour income in these countries are poor for macroeconomic reasons, and in particular, due to real exchange rate developments. First, economic growth in the CECs, increasing labour costs and real appreciation of exchange rates will increase the competitive pressure on agriculture. Secondly, these trends will be associated with a relative fall in purchasing power of agricultural incomes. In order to maintain sustainable income levels agriculture will require major restructuring. On the other hand, an increase in labour opportunity

costs in the rest of the economy will provide an incentive for labour to move out of agriculture. This will depend largely on reducing structural impediments to labour adjustment. In this context, it is important to note that unemployment in many rural areas remains high despite satisfactory growth rates in the economy as a whole.

These low levels of agricultural income per labour unit translate into significant rural poverty. Recent research from the World Bank suggests that poverty as defined by the population below 50% of average income is considerably more concentrated in rural areas in Poland, Romania, Lithuania, Latvia and Bulgaria (Graph 8). Even in Hungary, where agricultural incomes are comparatively high, significant rural poverty exists. As the World Bank study shows there are many reasons outside the agricultural sector that create vulnerability to poverty in rural areas – low levels of human capital, lack of infrastructure, lack of alternative sources of investment and peripherality.

8 Concentration of poverty in rural areas in CECs



1 There is scope for debate about whether the level of income taken should be in relation to average income in the EU or individual Member States or even regions. In practice, there are various problems with comparisons based on an EU-wide average income level, since the measure tends to be dominated by the large differences in average income between Member States rather than reflecting differences in the dispersion of income within these. In other words, a measure of poverty calculated in relation to average income in the EU largely indicates differences in national rather than individual levels of income. At the same time, irrespective of the merits or otherwise of measuring poverty on a regional basis, the data are simply not available to do so.

2 In the First Cohesion Report, the previous definition used by Eurostat was used to determine the poverty line, ie an income per head of 50% or less than the mean. In practice, for most countries the two measures give similar results. However, the new definition is preferable, especially for making comparisons over time, because the median is a more stable measure of average income than the mean in that, since it relates to someone in the middle of the income distribution, it is not affected by extreme values. The figures reported in the text are derived from the European Community Household Panel. It should be noted that data for Belgium are at present being revised.

3 It is interesting to compare this with the reduction in regional disparities due to transfers. The First Cohesion Report found that total government expenditure, including social spending, reduced interregional disparities in Member States by 10-30%, ie by less than the reduction achieved in interpersonal disparities, which are generally more of a focus of national policy.

I.4 Factors determining real convergence

Productivity, competitiveness and economic performance

Competitiveness is often viewed as a key indicator of the success or failure of policy. The term literally refers to producers competing with each other in the same market. However, there is a related concept of the economic performance of regions and countries, which can also be termed 'competitiveness.'

Despite the fact that there are competitive and uncompetitive firms in every region, there are common features which affect the competitiveness of all firms located there. These features include physical and social infrastructure, the skills of the work force, an institutional framework and a culture conducive (or not conducive) to innovation and the efficiency of public institutions (especially managerial capacity at the regional level). In addition, success breeds success; the presence of strongly competitive firms in a region tends to stimulate other firms and to encourage further investment.

Over recent years, a standard definition of regional and national competitiveness has begun to emerge, which relates to the achievement of 'high and rising standards of living and high rates of employment on a sustainable basis.'[1] Although traditional measures of competitiveness tend to focus on GDP per head, there are other important factors affecting economic performance. The Lisbon summit underlined the crucial link between Europe's economic strength and its social model. Effectively targeted social protection helps economies adapt to change. By promoting greater social cohesion it can help reduce the underuse of human resources. It is also important to keep in mind the contribution of other factors such as the quality of the natural environment, quality of healthcare, social services and so on. Indicators of this type help enrich our understanding of economic development, though further work is needed to develop better measures of progress in these areas.

In practice, GDP per head can be broken down into two main components: the employment rate, or the proportion of working-age population in work, and productivity, or GDP per person employed. Since a high level of one does not necessarily go with a high level of the other, they are considered separately below, both in aggregate and by sector, before examining investment and other key factors underlying productivity.

Trends in regional economic performance

For the EU as a whole, economic performance over the past 25 years has tended to be stronger in terms of productivity and often weak in terms of employment. This has sometimes led to concerns about 'jobless growth', though, in practice, employment has always increased when GDP growth has been more than 2% a year or so. The problem has been maintaining this rate of growth over the long-term. Over the decade 1989 to 1999, for example, annual growth averaged 1.9%, but because GDP per person employed rose by 1.4%, employment increased by only 0.5% a year. In the long-term, achieving high employment growth and high productivity growth are not necessarily in conflict with each other. Indeed, to the extent that productivity growth increases competitiveness and, therefore, enables higher growth of GDP to be achieved, they are complementary. The challenge in lagging regions, however, is to develop a mix of policies which boost productivity without adversely affecting levels of employment.

While in most, but not all, lagging regions, employment levels are less than in the rest of the EU, in all of them, productivity is below average. Two main groups can be distinguished:

- those with employment rates similar to, or in a few cases above, the EU average, which need to catch up in terms of productivity, measured by GDP per person employed. These are mostly in Portugal, Greece and the eastern part of Germany, where in the first, productivity is typically only around 40% of the EU average and in the other two, around 60% of the average.

- those lagging in terms of both productivity and employment. These include most regions in Spain and southern Italy, where employment rates can be as low as 40% as against an EU average of over 60%. In these cases, low employment is, exceptionally, a more important reason for low GDP per head than low productivity.

Sectoral analysis: low productivity in agriculture

The sectoral structure of economic activity shows an interesting pattern, if sectors are divided into agriculture; industry (mainly manufacturing); distribution, transport and hotels and catering; business and financial services and non-market and other services (principally health, education and public administration) (see Table A.18 and Map 8). Productivity is highest in business and financial services, gross value-added per person employed in the EU being over twice the average for the economy as a whole.[2] It is slightly above average in industry and just below average in distribution, transport and hotels and in non-market and other services.[3] In agriculture, productivity is only around half the average for all sectors.

Poor performance often linked to concentration in less productive sectors

In all three of the cohesion countries, overall employment rates are low to a large extent because of low employment in business and financial services, where productivity is relatively high (though this should be interpreted with caution because of high value-added in the protected financial services sector). On the other hand, the share of employment in distribution, transport and hotels and in non-market and other services is similar to the EU average, as is the level of productivity. Employment is much higher than elsewhere in agriculture where productivity is very low.

This pattern is reflected at the regional level (Map 9). Three sets of regions can be distinguished in the EU of 27 Member States (though not all fit the classification neatly):

- lagging regions with a high employment in agriculture, often an above average share of employment in industry and low employment in services. These are notably in the southern Member States and in Central European countries, except for the Czech Republic, Slovakia and Hungary. While agricultural employment in the EU is under 5% of the total, in some regions in Spain and Portugal, it is over 15% and in regions in Greece and the most eastern parts of the applicant countries, over 20%;

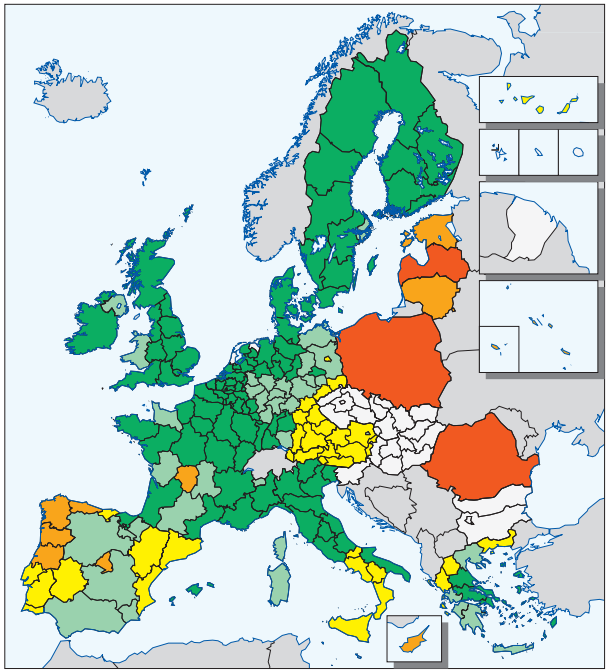
- regions with high employment in industry. Many of these are concentrated in a central arc, stretching from the West Midlands in England, eastern France and northern Spain, through southern Germany and northern Italy to the Czech Republic, Slovakia and Slovenia. Although many of these regions are prosperous, many are not, reflecting the significant variation in value-added between manufacturing industries;

- regions with high employment in services. These are regions where the share of employment in this sector is 70% or more. Most of these regions are prosperous and include a number of capital cities in the north of the EU, but the group also includes regions in southern France, Spain and Italy, which have relatively low levels of GDP per head and where employment is concentrated in basic services, many of them catering for the tourist trade.

The long-term trend towards services and the restructuring required in lagging regions

Over many years, there has been a tendency in the Union for employment in agriculture and industry to decline – though in the latter, the number employed has stabilised in recent years, even if the share has continued to fall – and for employment in services to expand. This trend, however, as noted above, has some way to go in many regions, particularly in

8 GDP per person employed, 1998



Agriculture

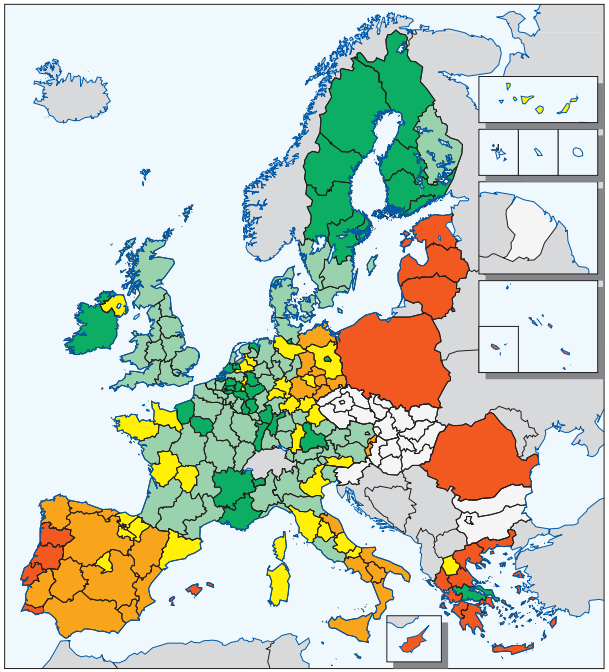
Index, EU15 = 100

- < 9
- 9 - 39
- 39 - 69
- 69 - 99
- ≥ 99
- no data

average = 54.1
Standard deviation = 59.2

England: average of NUTS1 regions
UK: NUTS1
IRL, PL, RO: NUTS0

Source: Eurostat



Industry

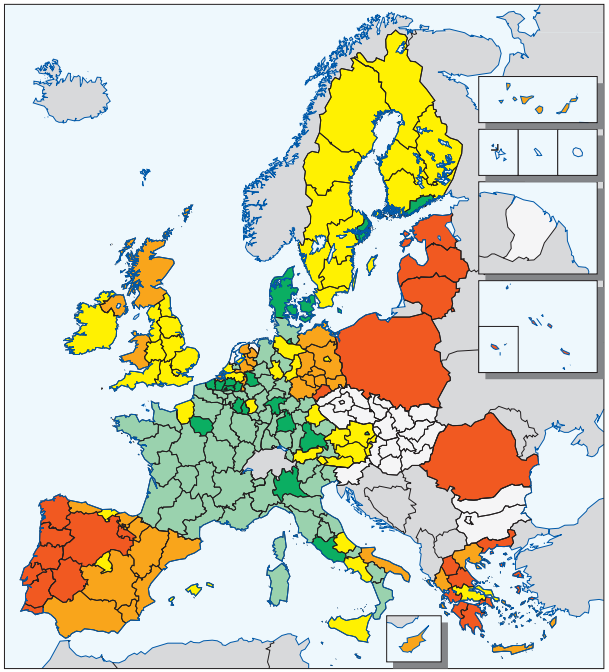
Index, EU15 = 100

- < 57.5
- 57.5 - 76.5
- 76.5 - 95.5
- 95.5 - 114.5
- ≥ 114.5
- no data

average = 86.0
Standard deviation = 38.1

England: average of NUTS1 regions
UK: NUTS1
IRL, PL, RO: NUTS0

0 250 1250 km



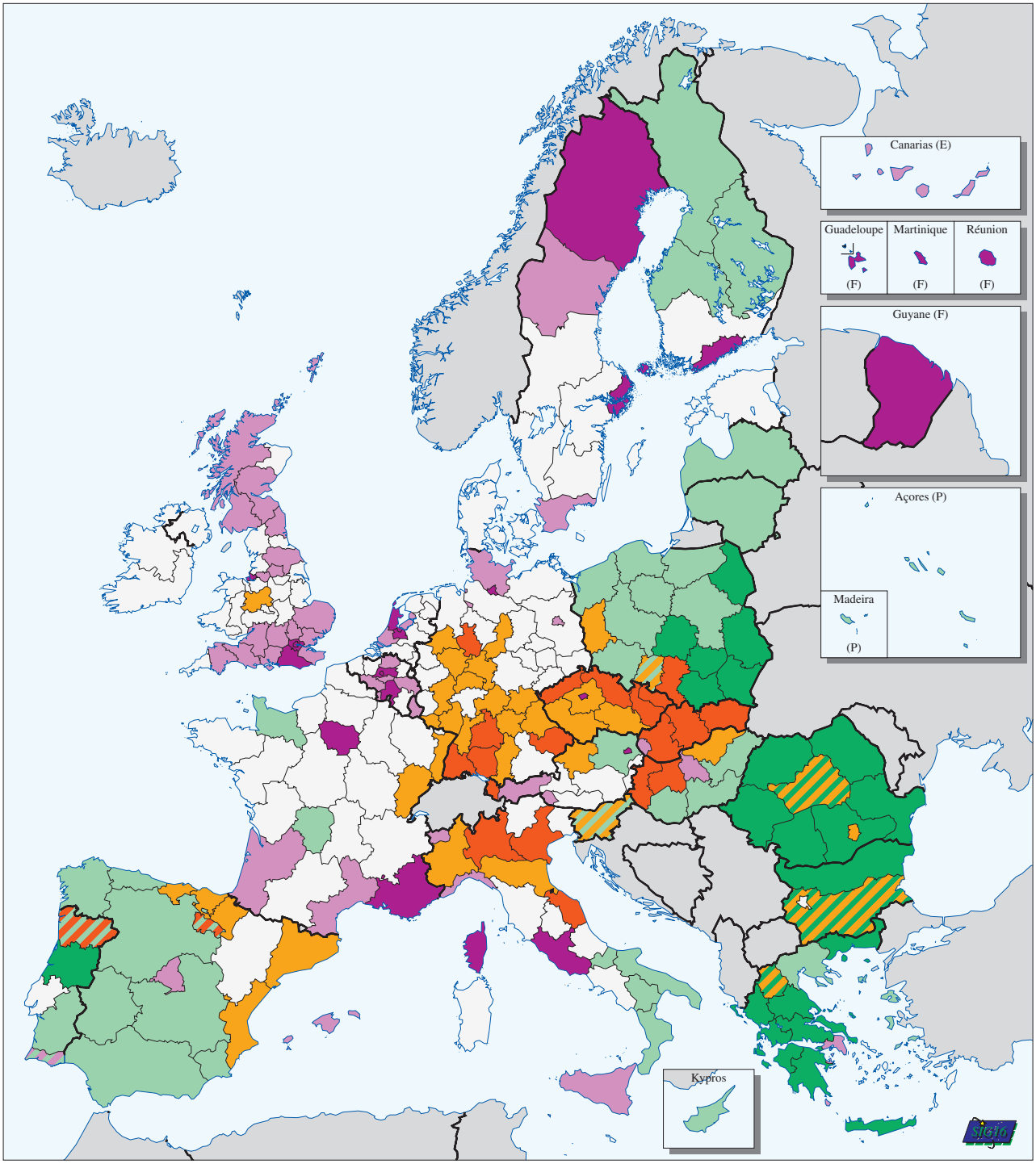
Services

Index, EU15 = 100

- < 68
- 68 - 84
- 84 - 100
- 100 - 116
- ≥ 116
- no data

average = 91.9
Standard deviation = 31.1

England: average of NUTS1 regions
UK: NUTS1
IRL, PL, RO: NUTS0



9 Regions with highest agricultural, industrial or service employment, 1999

- Agriculture (top 10%)
- Agriculture (top 25%)
- Industry (top 10%)
- Industry (top 25%)
- Services (top 10%)
- Services (top 25%)

Top 10% and 25% of total population
EL, RO, SK: 1998
BG, LT, LV: 1997
D (Sachsen): NUTS1
Sources: Eurostat and NSI

0 100 500 km

lagging ones. Indeed, even in the most prosperous regions, employment in services is still growing. Between 1990 and 1999, employment in services in the EU increased by some 12 million, while in the rest of the economy it declined by 9 million. Most of this decline occurred during the recession years of the early 1990s, though during the recovery since 1994, agricultural employment has continued to fall (by around 1.3 million), while employment in industry has remained broadly unchanged. In the lagging regions, there will be a continuing shift of employment out of agriculture on a substantial scale in future years, though not necessarily job losses in industry. Indeed, in some regions, employment in manufacturing, especially where it is still below the EU average, might well increase, as it has tended to do in recent years. In the central industrial regions, on the other hand, employment in manufacturing in many cases could decline, at least as a share of the total, though in many of these a shift has already occurred to high value-added activities, as noted below.

The restructuring of employment in future years is likely to be even greater in the candidate countries, where jobs in many regions remain concentrated in agriculture and/or industry.

It should be noted in this context (see maps of employment and productivity by sector) that the shift in employment out of industry, and to a lesser degree out of agriculture, in the more prosperous regions in the EU has not necessarily been accompanied by a similar decline in the share of value-added generated in these sectors. Indeed, in many cases, productivity has increased significantly in industry, as employment has concentrated in high value-added activities. This demonstrates the potential for maintaining a small but highly competitive manufacturing sector as a key part of the regional economy.

Shifts of activity within sectors as important as shifts between them

An important aspect of lagging economic development in the less prosperous regions in the EU is the concentration of activity in low value-added sectors (though, it should be emphasised, productivity in the same sector can vary significantly across the Union). This reflects differences in both the efficiency of performing the same activities and the degree of concentration in higher or lower value-added parts of the broad sectors concerned.

For example, business and financial services have relatively high value-added per person employed in the cohesion countries (as in some of the candidate countries), which partly reflects high interest rates (which push up value-added in financial services) and low competition, but also perhaps the under-developed nature of these services in relation to potential demand. On the other hand, manufacturing, which has an above average level of value-added per person employed in most countries, has relatively low productivity in the three cohesion countries (as well as in most of the candidate countries). This difference in part reflects a tendency for high value-added and high-tech parts of manufacturing to concentrate in the more prosperous Member States.[4]

In agriculture, value-added per person employed is around 80-90% of the EU average for all sectors in the more prosperous countries, but only 40% of this in Spain, 25% in Greece and just 13% in Portugal (and 16% in Austria). (In the candidate countries, the figure is even lower.) These figures reflect both the need for diversification into higher value-added activities and the long-term potential for significant productivity growth in the sector.

Demography and migration

Population in the EU is set to decline ...

At the beginning of 2000, the population in the EU stood at 376 million, substantially less than in China (1.2 billion) or India (1 billion), but significantly more than in the US (272 million) or Japan (126 million). Assuming trends in birth and death rates and in migration continue, EU population is projected to grow very slowly between 2000 and 2005 (by only 0.2% a year) and then hardly at all (by under 0.1% a year) from then until 2022, when it is expected to start declining. In 2010, therefore, population is forecast to reach 385 million and in 2025 to be only slightly higher (388 million). From 2008, population is set show a natural decline but this will be offset for a few years by net inward migration.

Trends in population, however, vary markedly between different parts of the Union. While population is

still growing in most regions even if slowly, in some, predominantly in Spain, Italy, Germany and the Nordic countries, it is already declining (see Map A.11). Between 2000 and 2010, more regions in Germany and Italy are projected to show a decline, in addition to some in France, the UK and Austria. On the other hand, population is expected to continue increasing at a relatively high rate in a number of regions in southern Spain, the south of France and Greece as well as in parts of Germany, the Netherlands and the UK.

By 2025, almost 90 of the 200 or so regions, defined at the NUTS 2 level, accounting for half of all the people living in the EU, are projected to be experiencing population decline, including all those in Italy but also a number in virtually all Member States.

... as it is in the candidate countries

Demographic trends are even more adverse in the candidate countries. While in most of the 12 countries, population grew at a relatively high rate in the 1970s and 1980s, due to high fertility rates and increasing life expectancy, in the 1990s, fertility rates fell dramatically and life expectancy declined. In addition, there was significant outward migration, with only the Czech Republic, Malta and Cyprus experiencing a net inward movement over the period 1990 to 1999 (see Map A.12).

As a result, population growth has already begun to fall in most of the countries. In 8 of the 12, population declined over the 1990s. Between 1995 and 1997, it fell in 32 out of the 52 regions, defined at the NUTS 2 level and there was net outward migration in 31 of them. In the wider European area, therefore, and including these countries with the existing EU Member States, population decline is likely to occur several years earlier than indicated above. (The projections for the 12 countries are based on UN forecasts.[5])

Regions with declining population

Demographic trends are affected by social and economic developments. Migration flows, in particular, are related to regional differences in labour market conditions, people moving from areas of low job growth to ones with more employment opportunities, and, over the longer-term, such differences can also affect birth and death rates.

Declining regions in the EU are, therefore, characterised by low income levels, high unemployment and a large proportion of the work force employed in agriculture and industry (see Graph A.9). In addition, they tend to have a relatively small number of young people, reflecting their migration to other areas as well as low fertility rates, and a low density of population, reflecting the rural nature of many of them. There are, however, notable exceptions to the latter, since a number of densely-populated regions (eg Brussels and Attiki, where Athens is located) have also experienced a reduction in population in recent years. Indeed, a tendency to 'suburbanisation', the movement out of city centres to the suburbs and neighbouring regions, which is often described as 'urban sprawl', is evident in many major conurbations across Europe.

Population ageing in the EU will accelerate ...

Population in the EU is ageing rapidly. With low birth rates, the proportion of young people under 15 has declined for a number of years and is projected to continue to do so in the future, falling from 17% in 1998 to 14.5% in 2025. By contrast, the proportion of those aged 65 and over is rising significantly and is set to increase even faster after 2010 as the baby-boom generation begins to reach this age. Accordingly, the proportion is projected to increase from around 16% of total population in 1998 to 22% by 2025. Moreover, within this, the relative number of people of 80 and older is rising faster still.

These trends will have important consequences for social welfare and taxation systems across the EU. In particular, the prospect is for a growing number of people above retirement age who will need to be supported by those in employment. All Member States will experience an increase in the old-age dependency rate (the number aged 65 and over relative to those of working-age, taken here as 15 to 64), but the extent of this is likely to vary significantly between them. The most marked increases are expected to be in Italy, Sweden, Finland and Germany and the smallest in Ireland, Portugal and Luxembourg.

The trend is likely to be similar, if less pronounced, for the overall dependency rate, the total above and below working-age in relation to those of working-age, despite the projected decline in the number of children[6] (Map 10). At present, there are some 49 potential dependants in the EU for every 100 people of

working age; in 2025, there are expected to be 58. The number is projected to be particularly high in most regions in France, Sweden and Finland.

The retirement of 'baby-boomers' together with the declining number of young people is set to reduce working-age population in the EU from around 2010 onwards, and this is projected to fall from around 251 million now to some 243 million in 2025. At the same time, the average age of those of 15 to 64 will increase.

... as it will in the candidate countries

The pace of population ageing in the enlarged EU, ie including the candidate countries as well as the existing Member States, might be slower, but only slightly. In most candidate countries, active policies of encouraging population growth during the 1970s and 1980s were reversed in the 1990s. While the average age of their populations is lower than in the EU at present, it is likely to increase rapidly over the next 25 years, as falling fertility rates reduce the relative number of young people under 15 in all countries apart from Malta. By 2025, the proportion of young people in total population is, therefore, projected to be even less than in the present EU.

On the other hand, the proportion of people aged 65 and over in these countries is, on average, less than in the EU at present. Accordingly, old-age dependency rates are also lower and, in many regions, well below those in EU Member States, with the exception of Ireland (Map 10).

The relative number of elderly people will also increase substantially, though only in the Czech Republic is the number expected to rise above the EU average by 2020. Nevertheless, both the average old-age dependency rate and the average overall dependency rate are expected to be only marginally lower in an enlarged EU than indicated above.

The same is true of the prospective decline in working-age population, which is projected to occur from about the same time in the candidate countries as in the present EU. The number of people aged 15 to 64 is expected to rise slightly from the present 72 million until 2009 and then to fall to 66 million in 2025. Working-age population in an enlarged EU is, therefore, likely to reach a peak of 328 million in 2010 and to decline to 309 million by 2025. As in the EU, the average age of those of 15 to 64 in the candidates countries will also increase, though at a slightly slower rate than in existing Member States.

The labour force in the EU is set to decline and to age ...

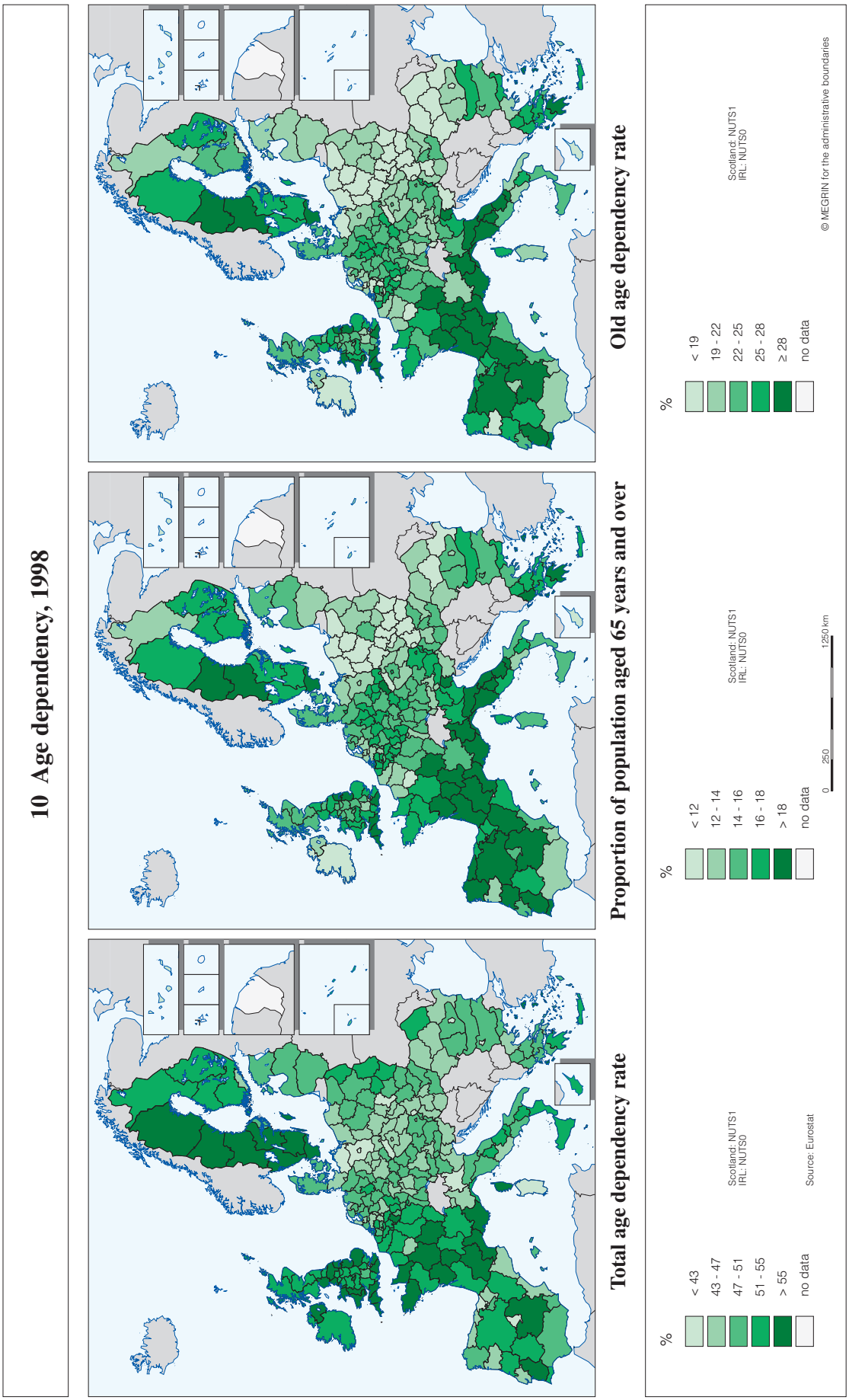
The trends in working-age population described above will inevitably affect the growth and age structure of the labour force in the EU, though this will be influenced as much by changes in participation as by demography. These, in turn, will be determined by a range of economic and social factors, most especially by the availability of jobs, but also by education developments, social attitudes towards women working, the availability of child-care support, the age of retirement, the details of pension schemes, the structure of households and so on.

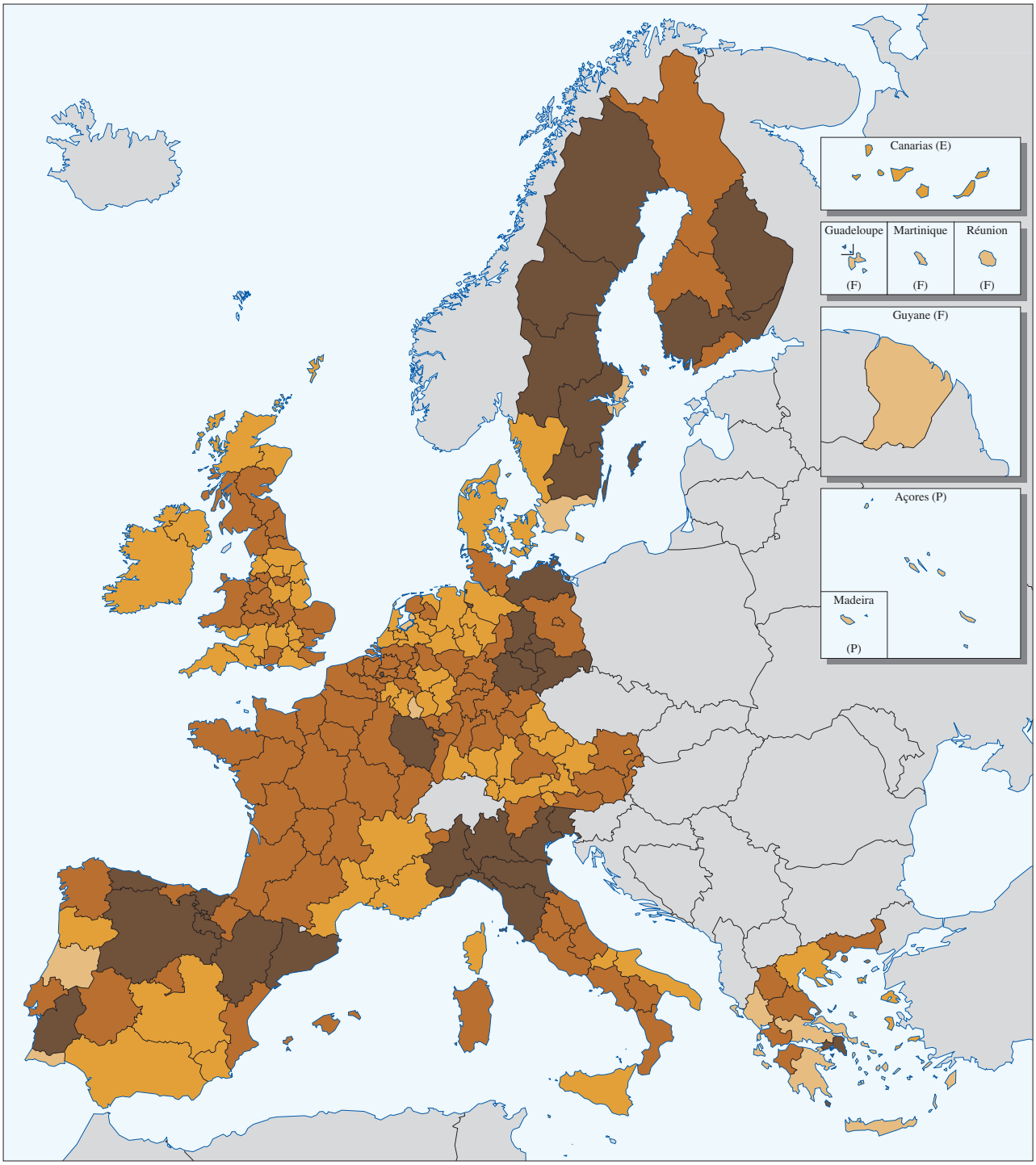
If current demographic and participation trends persist, the labour force is projected to grow in the EU up to 2010, when it will reach 183 million.[7] Thereafter, it will start to decline, falling to some 175 million by 2025. The onset of decline, however, is likely to differ significantly between regions (Map 11). Nevertheless, in almost all regions in the EU, the number of economically active people is expected to be falling by 2025, though at widely differing rates. The decline is projected to be particularly marked in Italy, Germany and Spain, the labour force falling by over 1 million in each case.

Because of demographic trends and possible changes in participation, the relative number of people of 50 and over in the labour force is expected to increase in all Member States, from an average of around 20% of the total now to 30% in the early 2020s. In the Nordic countries, where participation is not expected to change much, the increase in this proportion is likely to be relatively small, while in Italy and Spain, where birth rates are low and participation rates of women could increase markedly, it might be substantial.

... which could have profound economic consequences

As noted above, these trends could have far-reaching economic consequences, especially for the sustainability of social protection and health care systems, which will be put under increasing pressure by the growth in the number of elderly people.


10 Age dependency, 1998
Total age dependency rate
Proportion of population aged 65 years and over
Old age dependency rate
%
< 43
43 - 47
47 - 51
51 - 55
> 55
no data
%
< 12
12 - 14
14 - 16
16 - 18
> 18
no data
%
< 19
19 - 22
22 - 25
25 - 28
≥ 28
no data
Scotland: NUTS1
IRL: NUTS0
Source: Eurostat
0 250 1250 km
© MEGRIN for the administrative boundaries



11 Projected decline in the labour force

Periods

- Not before 2025
- Between 2015 and 2025
- Between 2005 and 2015
- Between 1995 and 2005

0 100 500 km

Accordingly, attention needs to focus on the possibility of increasing participation among older people as well among women, the prime source of labour force growth in the future.

At the same time, such a possibility brings into focus the problem of maintaining, updating and extending the skills of the people concerned, which is already a concern given the ageing of the work force. In many countries, the pursuit of early retirement policies up until recently have enabled this problem to be ignored. Moreover, the perception that returns to the training of older workers are relatively low, whatever the reality, means that employers are often reluctant to undertake the necessary investment. This reluctance tends to be compounded by the perceived difficulties of the training process and of older workers learning new skills. These difficulties, however, can be greatly reduced if the training of such workers becomes part of a process of lifelong learning, which in turn means that people acquire new skills throughout their working lives and are accustomed to doing so. This kind of development, which requires a change in attitudes as well as in working practices, is essential if the potential of older workers is to be effectively tapped, which could prove vital for EU producers to remain competitive on world markets.

It is equally important to ensure that women – or indeed men – returning to work after a period of absence due to family reasons have access to the training they need to update their skills and learn new methods of working, so that they can both find suitable jobs and contribute effectively to the development of the EU economy.

The prospective decline in the number of young people might have the effect of diminishing youth unemployment, though this in the long-term depends more on their skills and the rate of job growth than on numbers *per se*. The decline in young people entering the labour market has been accompanied by an increase in the number remaining in education and initial vocational training longer. In a knowledge-based economy, it is essential that this trend continues. At the same time, the growing recognition of the importance of workplace training as well as formal tuition means that in a number of countries the labour force participation of young people is increasing as they combine paid employment with continued education.

Whatever measures are taken to increase participation, the extent to which it increases for women and older workers as well as young people, ultimately depends on the rate of job growth, which in turn is likely to depend on the pace of economic development. (The process, it should be emphasised, is not solely one-way, since more skilled and enterprising people joining the labour market is itself likely to boost competitiveness and economic growth.) This will determine whether unemployment declines and job shortages emerge or whether, despite the falling number of people of working age, unemployment in the Union increases again.

The labour force in many parts of northern Italy is, for example, projected to decline significantly in future years on the basis of past trends and, indeed, labour shortages are already beginning to emerge. In the longer-term, however, if economic growth and net job creation can be sustained at high levels, this might encourage more people – women in particular whose participation is well below the EU average in most areas – to join the labour force and ease shortages. (Participation of women in northern Italy has increased markedly over the past 10-15 years, whereas in southern Italy, where job growth has been depressed, it has hardly changed.)

Inward migration could increase but it should not be overemphasised ...

Recent studies conclude that large-scale migration flows from the candidate countries are unlikely to occur and should not be overemphasised in the enlargement agenda. Since, however, convergence of income per head in the CECs to EU levels will be a long process, migration is almost certain to increase once free movement is possible. Estimates are that net migration to the EU could amount to some 335,000 a year immediately after entry barriers are removed, but that this would fall to below 150,000 within a decade.[8] At this time, the number of people living in the EU from the CECs could reach 2.9 million and another 10 years later, 3.7 million, rising to a peak of 3.9 million 30 years after the introduction of free movement of labour. This implies a growth in CEC nationals resident in the existing EU Member States from 0.2% of total population in 1998 to only just over 1% in 30 years time. On these estimates, concern that migrants from the CECs will swamp EU labour markets are, therefore, ill-founded.

People moving from the CECs are likely to go mainly to Germany and Austria, where the numbers are already high. Estimates are that some 65% will go to the former, 12% to the latter, and within these countries, primarily to border regions and centres of economic activity – in Germany, to southern regions bordering the Czech Republic rather than to the new Länder, in Austria, to eastern areas. Regions bordering the CECs are also likely to experience increased temporary inward migration and commuting. This concentration could, however, give rise to social tensions in the areas concerned.

... and could ease labour shortages

Perhaps the most interesting and potentially important conclusion from recent studies is that, unlike the EU, many CECs are likely to experience a significant growth in younger people aged 20 to 35 over the next decade or so. This represents an opportunity for the enlarged EU, insofar as it gives employers the possibility of taking on young people with high education attainment levels. Indeed, if economic recovery continues at the pace currently expected, then it will also be a time when skill shortages are likely to become more acute.

In fact, there is also evidence in the EU of labour shortages in less skilled activities in a number of regions, even in some where unemployment is relatively high. Immigrants could potentially help to relieve shortages in these areas as well, though it is important that adequate measures are introduced at the same time to integrate those concerned into the local community and prevent them becoming socially excluded.

In this regard, a recent Commission Communication on a Community Immigration Policy (COM(2000)757) proposed the adoption of a controlled immigration policy as one of the responses to the problems implied by demographic trends and pointed to the potential contribution of immigration to the European Employment Strategy.

Although the outflow of young people might tend to damage the development potential of the regions from which they move in the short to medium-term, especially as those moving are likely to include a disproportionate number of the most highly educated, their subsequent return, with the expertise and know-how they have acquired, could give a major stimulus to development in the CECs.

Nor is enlargement likely to pose serious problems for EU labour markets

It is unlikely that the free labour movement will have a major effect on EU labour markets as a whole, though it could affect Member States differentially according to the specific circumstances which exist. CECs at present are small in economic terms, which means that increased imports from them are likely to affect prices in goods markets, and so wages and employment, only to a limited extent. According to a recent study, for example, immigration averaging some 200,000 a year over the next 15 years would reduce earnings by under 1%.[9] In border regions, however, the effect on labour markets could be more significant, as it could be in sectors which are most exposed to competition from CEC imports, though equally there are potential gains from the proximity of new markets.

Investment

Investment the key to growth in candidate countries

Indicators of investment are a good barometer of the growth potential of an economy[10] (see Graphs A.10 and A.11). Investment (as measured by gross fixed capital formation) is higher in relation to GDP in the applicant countries than in current EU Member States – 25% of GDP as against 20% in 1998. It is essential for this differential to be maintained or even increased if the applicant countries are to achieve the high growth rates necessary to catch up with the EU economies. High investment *per se* is no guarantee of success – it must be well targeted and coupled with technical progress (see below) – but it is a necessary condition.

The level of investment, however, differs significantly between applicant countries. In the Czech Republic, Slovakia and Poland, investment is as high as 30% of GDP. By contrast, in the countries with the lowest levels of GDP per head, it is generally much less (only around 11½% of GDP in Bulgaria in 1998).

In the Union, Portugal, the country with the second lowest level of GDP per head, has the highest investment in relation to GDP (28%), while in Spain and

Greece, as well as Ireland, it is also well above the EU average. Sweden, on the other hand, with GDP per head around the EU average, has the lowest level (17% of GDP).

The capital stock: lagging economies still have much catching up to do

In judging the effect of capital formation on economic performance, it is important to consider not just current investment flows, but also the accumulated stock of capital which these have built up over time.[11] The data on this, however, involve a high degree of estimation and should be regarded as indicative only. Nevertheless, some interesting conclusions can be drawn.

The main observation is that more prosperous countries have a larger stock of capital than less prosperous ones. In the three cohesion countries, capital stock in 1999 is estimated at only EUR 33,000 per head as opposed to EUR 54,000 in the EU as a whole and EUR 75- 80,000 in Denmark, Germany and Austria (see Table A.19 and Graphs A.12 and A.13). The cohesion countries, therefore, have only 60% of the capital per head available in the EU as a whole.

Since the capital stock is built up over a great many years, it tends to change only slowly and is dominated by past investment. This is most clearly so for buildings, which can be used effectively for decades, though even machinery and equipment can often have a useful life of 10 years or more.

Nevertheless, because of the higher rate of investment, the gap between the cohesion countries and the rest of the EU is narrowing, if slowly – 10 years ago capital stock in the former averaged only 54% of that in the EU as a whole. However, while the cohesion countries are catching up in relative terms, in absolute terms they still spent less than the EU average on investment per head of population over the past decade – EUR 10,000 as opposed to EUR 13,000.

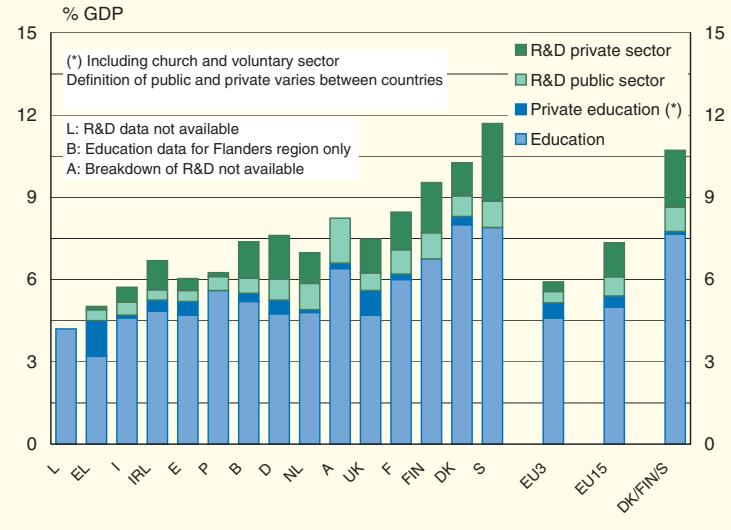
Investment in knowledge: the basis for long-term growth

While capital expenditure on physical assets is important, intangible investment in research and development, education and information technology is becoming even more important for economic development in the Union.

Growth over the long-term, therefore, is attributable not to just to an increase in the fixed capital stock, but more significantly to technical improvements which increase the efficiency with which capital – and labour – is used.[12] Moreover, the information revolution means that investment in technological advance is likely to become even more important in the knowledge-based economy of the future.

It is, therefore, important to review the extent of investment in knowledge across the EU as well as in fixed assets. This gives rise to somewhat different conclusions, since many of the countries with below average rates of fixed investment are among the largest investors in technology. In particular, Sweden, with the lowest fixed investment rate in the EU, has the highest rate of investment in knowledge (Graph 9). France, the UK and Finland are similarly low investors in physical assets but high investors in knowledge.

9 Investment in knowledge



On the other hand, the three cohesion countries, as well as Ireland, spend less than average on investment in knowledge. While their high rate of expenditure on fixed capital formation is closing the gap in their capital stock with the rest of the EU, their low investment in less tangible assets is not a secure basis for longer-term growth in a digital age.

Infrastructure endowment

Most public investment in Member States as well as that supported by the Structural Funds goes on infrastructure. An adequate endowment of infrastructure is a necessary, but not sufficient, condition for the economic development and competitiveness of a region, an important factor determining both the location of economic activity and the kinds of activity or sector which develop. Investment in infrastructure is essential for reducing the effect of distance between regions, especially between those on the periphery and those in the centre. Other conditions, however, need to be met in parallel if the increase in accessibility in peripheral regions is not to become a threat rather than an opportunity.

Transport infrastructure

Transport infrastructure, in particular, plays an important role in reducing regional disparities and improving the competitiveness of regions by facilitating trade and the movement of labour. Improvements in infrastructure reduce both the time and the cost of transporting goods and so increase productivity and alter the comparative advantage of being located in different regions. Equally, they have a similar effect on 'travel to work' time, so extending the boundaries of local labour markets and increasing effective labour supply.

Transport infrastructure, however, remains largely the responsibility of government and is still an important component of structural and regional policy. Despite the privatisation of particular means of transport over recent years (especially high-speed rail and motorways), the cost of investment in basic infrastructure remains too high to be covered by the private sector. In addition, when deciding investment in new infrastructure, the subsequent recurrent cost of maintenance should be taken into account.

Road transport remains dominant

Roads are the predominant means of travel. In 1997, they accounted for 86% of all journeys made in the EU (measuring these in terms of passenger miles) and 94% of those made by land. Moreover, the transportation of goods by road is continuing to increase, accounting for 43% of all transport of goods in 1997 (measured in terms of freight-miles) as against 31% in 1970. Excluding that carried by air and sea, they accounted for 74% of all freight transported in the EU, while only 14% went by rail and 12% by inland waterway and pipeline.

The development of motorways has increased the density of road transport. Although the scale of the road network at Union level has remained broadly unchanged, the length of motorways increased by 40% over the 10 years 1988 to 1998, due notably to growth in the 4 cohesion countries, where many roads have been converted to motorways. Over this period, the density of motorways[13] in these four countries taken together rose from below the Union average (43%) to around the same level, the largest increase occurring in Spain, where the density rose from 63% of the average to 136%. On the other hand, while there was also substantial growth in Ireland and Greece, density is still well below the average (12% of the average in Ireland in 1998 as against under 2% in 1988, and 17% in Greece as opposed to their being no motorways at all in 1988).

At the regional level, growth has followed a similar pattern. Although the density of motorways remains higher in central or the most developed regions in each country than in Objective 1 or peripheral regions, growth has been concentrated in the latter.

Motorway networks are less developed in the Nordic countries (in Finland, density is only 41% of the EU average and in Sweden, 65%), especially in the most northerly, sparsely populated regions covered by Objective 1, reflecting their geographical, and demographic, features.

The EU average, however, should not be regarded in itself as an objective to be reached in some kind of mechanical way. Every region has its own specific needs in this regard, in terms of both the overall scale of transport networks and particular modes of transport. A minimum level of transport infrastructure is necessary for regional competitiveness, but this is not necessarily the same level in all regions. Moreover, quality and safety may be just as important for development (Graphs 10 and 11).

Reduction in rail transport despite modernisation

The importance of rail transport in the Union has diminished in spite of the modernisation of the network in a number of countries. In 1997, rail accounted for

6% of all passenger travel in the EU as against 10% in 1970. The decline in freight transport by rail has been even more pronounced, falling from 21% in 1970 to 8½% in 1997, and between 1990 and 1997, the amount of goods carried by rail fell by 7% whereas the amount carried by road rose by 29%.

The decline of traffic has been accompanied by a slight decline in the size of the rail network, as measured by the miles of track, and little reduction in either national or regional disparities in the EU. Indeed, in the cohesion countries, rail density[14] declined from 66% of the EU average in 1988 to 61% in 1998, due in particular to the closure of many lines in Spain and Portugal.

Nevertheless, the rail network has been modernised to some extent in the cohesion countries. In 1999, 24% of lines were double track as against 17% 10 years earlier and 39% were electrified, up from 32% in 1988. The rate of modernisation was highest in Spain, while in Greece both the length and standard of track remained very low (45% of the EU average as regards rail density, with only 12% of lines double track and no lines at all electrified). This, however, is due in some part to the geographical features of the country – the large number of islands and the mountainous areas (see Graphs A.14-A.16).

Sea transport: vital for island and coastal regions

The cost of infrastructure investment for sea transport is limited to the construction, maintenance and modernisation of ports which tends to be much less costly than road construction. In addition, although slow, sea and inland waterway transport is the least costly and most envoronmentally-friendly form. Nor is it affected by problems of congestion or capacity.

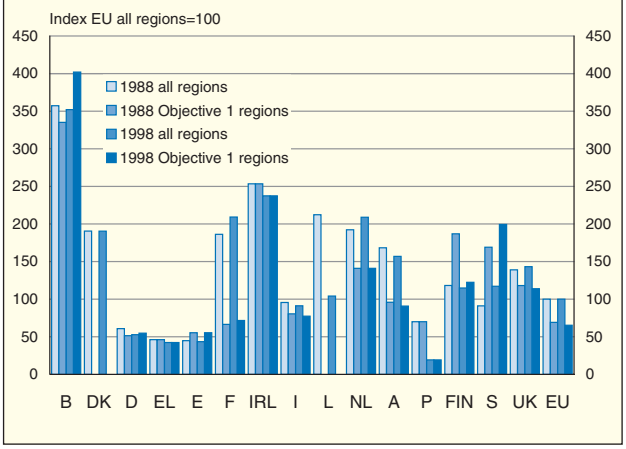
Sea transport accounted for 70% of the transportation of EU visible exports in 1997 and 30% of intra-Community trade. By contrast, only 7% of freight in the EU went by inland waterway.

Sea transport remains particularly important for transportation around the coasts of the EU and between the mainland and the many islands, even after the construction of several fixed links – the Oresund and the Channel Tunnel, in particular. In 1998, it accounted for 41% of all freight transported in the EU, both within and between Member States. The UK was responsible for 20% of this, Italy for 16% and the four cohesion countries together for 22%.

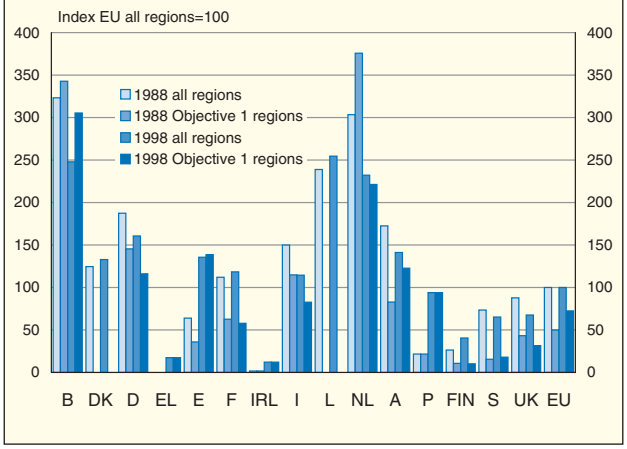
The volume of traffic going through the main ports increased significantly between 1990 and 1998, especially through those of medium size, including, in particular, Algeciras in Andalucia and Dublin, though traffic is still well below that handled by the largest ports in northern Europe, Rotterdam (where it is 10 times larger) and Antwerpen (3 times larger).

More notably, the growth of container ports has been more evenly spread across Europe. Five of the 12 largest ports in the EU are in the Mediterranean, including Giora Tauro in Italy, and these have experienced higher growth than those in northern Europe. The bulk of container freight is transported by road from and to the ports, except in Belgium and the Netherlands, where more goes by inland waterway. In France and Germany, although rivers and canals are

10 Roads index, 1988 and 1998



11 Motorway index, 1988 and 1998



not used to their full potential, there is a relatively high use of rail. By contrast, in the cohesion countries, almost all container transport is by road (89% to 98%).

The importance of intermodal transport is still very low in the EU as a whole. Only 12% of goods are conveyed from ports to inland destinations by means other than road (see Table A.20).

Transport systems in the candidate countries: outdated infrastructure developing differently than in the EU

Although the same broad tendencies are apparent in the candidate countries as in the Union, in terms of shifts between modes of transport, the starting-point and the overall development of transport there is very different. In the first place, the volume of traffic stagnated during the 1980s and declined markedly during the 1990s, reflecting similar trends in the economy and in trade. The volume of freight transported fell by 22% between 1980 and 1998, whereas it grew by 52% in the Union over the same period.

As in the Union, however, road transport has become predominant. Despite the overall decline in the volume of goods transported, freight going by road increased by 19% between these years, though this is still much less than in the Union where it doubled. Moreover, in 1998, only 47% of freight went by road as against 74% in the Union, while rail transport, though in decline, remained important, accounting for 42% of the total as against 14% in the Union. Indeed, most freight still goes by rail in the Baltic States and Slovakia, whereas much the larger part goes by road in the Czech Republic and Bulgaria.

So far as sea transport is concerned, the main ports in the CECs are Constance, in Romania, Ventspils in Latvia and Gdansk and Szceczin in Poland. The amount of traffic going through these is similar to that handled by the medium-sized ports in the Mediterranean and only 5-10% of that handled by Antwerpen. Nevertheless, the Baltic ports are growing rapidly.

Inland waterways are of marginal importance except in Romania and Slovakia, where they account for over 10% of all goods transported.

Transport infrastructure in the candidate countries is in overall terms less extensive than in the Union, and the rail network, though representing a larger proportion of the total, is in a poor state. In an enlarged Union of 27 countries, the main features of the system in the candidate countries are as follow:

- in the case of roads, all the countries, except Estonia, Lithuania and Poland, have a significantly less extensive network than the EU average. In Poland, it is similar to that in Ireland, while in Estonia and Lithuania as well as in the Czech Republic and Slovakia, it is more extensive than in three of the cohesion countries (see Graph A.17);

- there are in general many fewer motorways than in either the EU as a whole or the cohesion countries. While motorway construction over the past 10 years has increased markedly in the Union, and in the cohesion countries, in particular, it was minimal in the candidate countries. The density of motorways is highest in Slovenia and Lithuania, where it exceeds that of Portugal, whereas in Poland, which like Ireland is well endowed with roads, they are almost non-existent;

- railways are the most developed means of transport. The total length of track is in general greater than in the EU and almost double that in the cohesion countries. In the Czech Republic, it is twice the EU average and in Hungary, Slovakia, Latvia and Poland, 1½ times. Nevertheless, in terms of the standard of the network, the comparison is much less favourable. The proportion of electrified lines is well below the EU average except in Bulgaria and Poland, while, as in the cohesion countries, there are also many fewer double-track and high-speed lines.

The main problems to address, therefore, if transport networks are to further territorial balance in an enlarged EU, are:

- the ageing of the infrastructure in the candidate countries because of lack of investment in the 1980s and 1990s;

- the need to integrate networks in the candidate countries into the EU transport system as a whole as well as in the trans-European networks;

- the need to strengthen the intermodal aspect of transport systems, especially as regards links between ports in peripheral regions and less

favoured areas inland. In contrast to the candidate countries, infrastructure in the cohesion countries tends to be modern and better integrated with that in the rest of the EU, because of the large-scale investment in the 1990s. Nevertheless, the rail network remains less developed than elsewhere and links between different modes of transport, which, *inter alia*, are important for internal communication within less favoured regions, are inadequate.

Energy

The availability of energy in a region, the flexibility of supply in terms of the diversity of different sources and a high degree of self-sufficiency are important for regional development, in that they help define the limits to growth and employment. In addition, the type of output produced, the consumption of energy per unit of output and the capacity to reduce environmental pollution will determine the ability of a region to develop in a sustainable way.

Over the past 10 years, energy consumption in the Union has continued to increase as GDP has grown. Energy intensity, measured by the amount of energy used per unit of output has declined, though less significantly than in the 1980s. Between 1988 and 1998, GDP in the EU grew by 25% in real terms while energy consumption increased by 6%, a reduction in energy intensity.

Consumption of energy per head of population in the Union increased by 1.6% between 1988 and 1998, the rise being particularly marked in the cohesion countries, which started the period with a level under half the EU average but which increased consumption by almost 40% over these 12 years. This increase was largely the result of their economic growth and the energy intensity of consumption. This was especially the case in Portugal and Greece, the two countries with the worst performance in terms of energy use. Even though consumption per head in these two countries remains well below the EU average, mainly because of the their low level of GDP per head, consumption per unit of GDP increased substantially instead of declining as elsewhere. High economic growth in Spain was accompanied by an increase of over 30% in total consumption of energy and a small rise in the energy intensity of consumption. This, nevertheless, remains below the EU average, as it does in Ireland, which experienced a significant reduction in the energy intensity of consumption (of 33%)(see Graph A.18).

Water and the environment

For economic development to be maintained over the long-term it also needs to be sustainable in environmental terms. If the growth of an economy has damaging effects on the environment, this will ultimately limit its development. Accordingly, the availability of resources and the measures taken to protect the environment are factors which determine the long-run performance of regional economies and which, therefore, merit special attention.

Reserves and use of water

In the EU, estimates of renewable water reserves are relatively low – around 3,200 cubic metres per head of population a year as compared with an average in the world as a whole of 7,300. Nevertheless, the European countries have adequate reserves in overall terms, since the annual rate of abstraction is only around 660 cubic metres per head.

The distribution of reserves, however, varies significantly between regions. Reserves per head are 5 times greater than average in Finland and Sweden, as well as Norway, and 3½ times greater in Ireland, while they are only around half or less of the average in Denmark, Belgium and Germany (see Graph A.19). In relation to land area, the variation in reserves is wider still. In Norway, they are 60 times larger than in Spain, 30 times larger than in Sicily, eastern Greece, the central parts of Poland and Hungary and the areas around the Romanian-Bulgarian border.The availability of water reserves, however, depends not only on their quantity but also on the level of use, which depends, in turn, on a number of factors, such as the kind of industrial and agricultural production, the level of household consumption and the potential for treatment and re-use of waste water. Across Europe as a whole (including the candidate countries and the European Economic Area as well as the EU), the overall rate of abstraction a year is only 16% of available reserves. Moreover, since a large part of the water abstracted is returned to the original source, net final consumption amounts to only 5% of reserves. In the EU, the situation is slightly less favourable, the

annual rate of abstraction amounting to 21% of reserves and the net rate to just under 7%.

Water use varies significantly between Member States. The rate of consumption is relatively high in Belgium (43% of reserves) and Germany (35%) because of population density and high industrial use. In the Mediterranean countries, agricultural irrigation is responsible for most of the water extracted. In Spain, where the annual rate of abstraction is over 30% of reserves, 60% goes to agriculture, in Portugal, 52% and in Italy, 50%, while in Greece, the figure is as high as 80%. In Greece and Portugal, however, the overall rate of abstraction is relatively low (under 10% of reserves).

Nevertheless, it is the extent to which water abstracted is returned to its source which also determines the relative abundance or scarcity of reserves in each country. While more than 80% of water abstracted is returned to source in Belgium and Germany, in Spain and Italy, the figure is only 40% (see Graph A.20).

The treatment of waste water and household waste

Improvements in irrigation techniques in agriculture and in the treatment of waste water from industry and domestic consumers have increased the efficiency with which water reserves are used. In agriculture in the Mediterranean, new irrigation methods are enabling water to be re-used as well as treated, while the treatment of salt water is also likely to improve the relative situation in southern Europe.

Given that most of the population in Europe lives in towns and cities, it is important to pay as much attention to the damage that household waste disposal can do to the environment, as that caused by industry and agriculture. A policy of creating public awareness and of putting in place the necessary infrastructure to treat water and dispose of waste is essential to reduce the pressure on the environment.

So far as the treatment of domestic water is concerned, 90% of the population in the EU is connected to main water supply and 70% to main drainage. There are, however, large regional variations. Whereas in northern Europe as a whole, 90% of the population is connected to a main drainage system for treating waste water, in the cohesion countries, the proportion varies from 27% in Portugal to 58% in Greece (see Graph A.21). Moreover, in Belgium, it is only 32%. In the candidate countries, 40% of the population is not connected to a main water supply system and only 42% of waste water is treated, and only a small proportion of this to the level required by Community standards.

Household waste is treated in very different ways in different parts of the Union, in terms of whether it is incinerated, recycled, buried or simply dumped. Although the southern Member States tend to produce much lower levels of household waste than the rest of the EU (see Graph A.22), they also have much less in the way of treatment systems. Whereas 60% of household waste was recycled in the EU as a whole in 1995, and 80% in Germany and France, in Greece, the figure was only 5%, in Portugal, 30% and in Spain 45%.

Although the candidate countries have already introduced recycling of waste on a relatively large scale in order to compensate for their shortage of primary resources, nearly all of them are having difficulty meeting the recycling targets set out in the Community directive (50% of waste recycled by 2001 for current Member States). Recycling installations have not been modernised and a number have even had to be closed down because of lack of public funds. The Czech Republic, for example, currently recycles only 15% of the packaging waste produced, Slovenia, 29%, and Hungary, 32%. The situation is likely to deteriorate further in the future as the higher rate of economic growth, which will probably occur, could increase the amount of waste produced (according to the European Environmental Agency Report for 1999). In consequence, the support of structural measures in this area is required in order to sustain economic development in the enlarged Union.

Human resource development

The competitiveness of an economy depends, as noted above, not only on its physical capital, but also on the knowledge possessed by its entrepreneurs and labour force. Effective educational and training systems are, therefore, important for raising productivity and fostering economic growth. There are, however, striking differences in education and training across Europe.

Significant variations in educational attainment levels between Member States

Despite the gradual reduction of educational disparities over the past 30 years, there is still a large gap in educational attainment levels between the cohesion countries and the rest of the Union. In particular, in the former a large proportion of the population aged 25 to 59 has only a low education level, ie no educational qualifications beyond compulsory schooling (1999: 75% in Portugal, some 65% in Spain and around half in Greece and Ireland). The same is true for Italy, where more than half of those in this age group have low education.

By contrast, in the three Nordic countries, Belgium and the UK, more than a quarter of those aged 25 to 59 has a high (or tertiary) level of educational attainment (university degree or the equivalent) (Map 12).

The applicant countries: higher educational needs than figures indicate

In the Central European candidate countries, a large proportion of the population aged 25 to 59 has an upper secondary level of education, particularly in the Czech Republic and Poland, where the figure is over 70%.

Recent studies, however, offer a less optimistic assessment and suggest that the high proportion of people with educational attainment levels beyond elementary schooling is mainly due to lower vocational schools offering a basic form of training: 'The fact of having a relatively high number of workers with educational attainment above elementary schooling was mainly a by-product of the presence in these countries of lower vocational schools offering generally one to two years of training in narrowly defined occupations up to the completion of compulsory schooling. These lower vocational schools were actually part of the basic schools and were indeed not even formally considered as part of the secondary system of these countries.'[15] In addition, there is a question mark over the quality and nature of vocational training at upper secondary level, which in many cases seems outdated. This underlines the need for developing appropriate human resources strategies in these countries in order to avoid low skills slowing down economic and social development.

Growing number of qualified young people

Technological advance and continuing globalisation are increasing the demand for skilled labour. The educational attainment level of young people in the EU has been rising continuously for the past 30 years or more. In 1999, only 27% of young people aged 25 to 34 in the EU had no qualifications beyond compulsory schooling as compared with 48% in the in the 50 to 59 age group. Similarly, 49% of those aged 25 to 34 had upper secondary level education as against only 35% of the 50 to 59 age group, while 24% of 25 to 34 year-olds had a university degree or equivalent as opposed to 17% of those aged 50 to 59. It is expected that the number of people enrolled in higher education will double in the next ten years and this will strain the higher education systems in Europe.

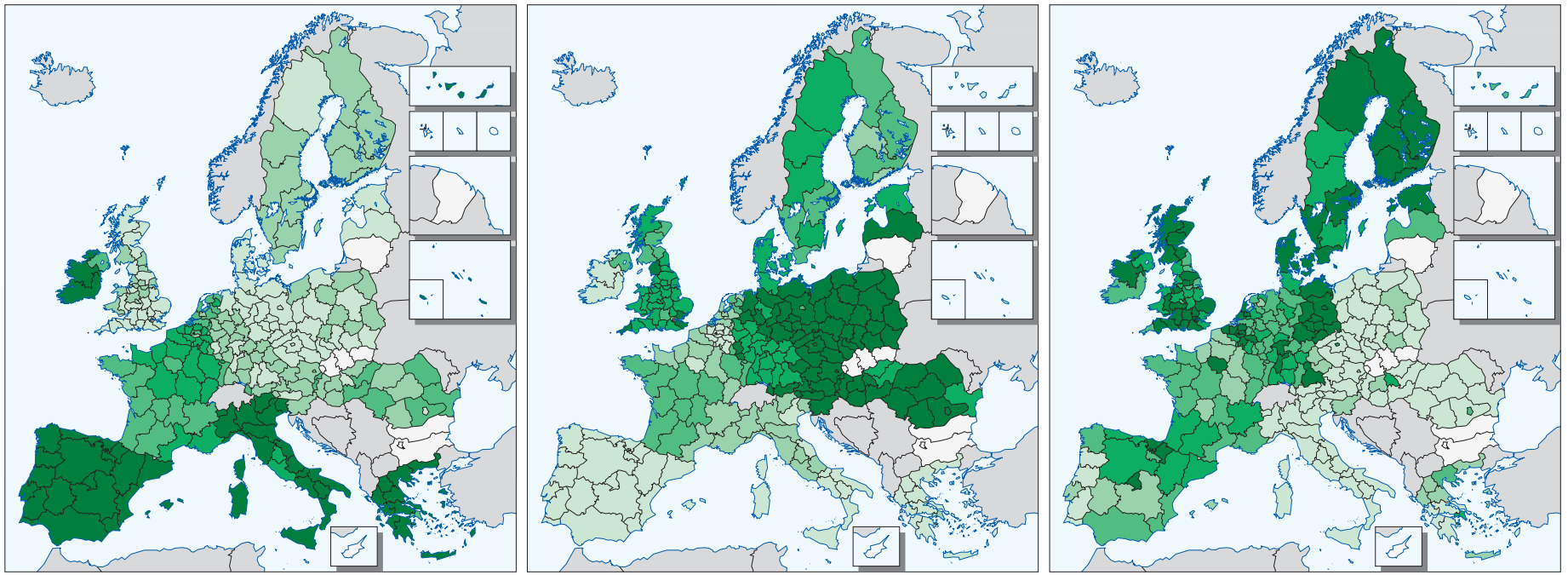
The increase in educational attainment levels is evident in all Member States. It is particularly marked in the cohesion countries, as well as in Italy, where average education levels of older people are relatively low. The proportion of 25 to 34 year olds in the cohesion countries with an upper secondary level qualification in 1999 was twice as high as among those aged 50 to 59 and the difference was similar in the case of tertiary education (Graph 12). As a result, the gap in attainment levels between Member States is narrowing.

At the same time, there is a stronger upward trend in the education attainment levels of women than men and in almost all Member States women in the younger age groups have attained a higher level of education than their male counterparts.

Nevertheless, the number of young people who leave the education system prematurely with only the most basic skills is still substantial; these young people are unable to respond adequately to the demand of a continuous updating of knowledge and competencies throughout life, which is needed due to the accelerating pace of technological, scientific and economic evolution of society.

In the European Union, an average of 22% of young people between 18 and 24 years old only acquire lower secondary education at most.[16] Some Member States lie significantly above this average. Furthermore, there are also alarmingly high rates in certain urban or peripheral areas as well as in disadvantaged social groups.

12 Educational attainment levels, 1999



Low

% of total population aged 25-59

- < 19.95
- 19.95 - 28.65
- 28.65 - 37.35
- 37.35 - 46.05
- ≥ 46.05
- no data

average = 33.0
Standard deviation = 17.45

D (Sachsen): NUTS1

Source: Eurostat (LFS)

Medium

% of total population aged 25-59

- < 35.3
- 35.3 - 43.5
- 43.5 - 51.7
- 51.7 - 59.9
- ≥ 59.9
- no data

average = 47.6
Standard deviation = 16.4

D (Sachsen): NUTS1

0 250 1250 km

High

% of total population aged 25-59

- < 13.25
- 13.25 - 17.35
- 17.35 - 21.45
- 21.45 - 25.55
- ≥ 25.55
- no data

average = 19.4
Standard deviation = 8.24

D (Sachsen): NUTS1

The problem is most serious in Portugal where over 45% of 18 to 24 year-olds fail to go on from compulsory schooling to further education or vocational training.

In the learning society, social stratification is increasingly based on a division between the haves and have-nots in terms of skills and qualifications. Dropping out from school, therefore, has much more lasting consequences than it had in the past, since it can mark an individual for life and greatly narrow the range of career choices open to them. Schools are at the centre of the learning society and life-long learning begins there.

Failure at school affects all sections of society, but not all equally. Surveys show that those dropping out of school come predominantly from low-income families where there is a history of failure. Many come from broken homes or from immigrant or refugee families which have not integrated successfully. Dropping out of school is, therefore, related to a range of social, health, family and financial factors. Although it is only one element of a cumulative process of social deprivation, it is often the critical one which deprives young people of the skills, qualifications and social contacts required to succeed or even to play a meaningful role in society.

The fight against school failure is at the heart of the debate on educational reform; it is essential for sustaining a knowledge-based economy and for maintaining a cohesive society and a democracy in which everyone can participate.

An increase in education level is also evident in the candidate countries. In most of them, the proportion of people aged 25 to 34 with upper secondary education is significantly higher than among those aged 50 to 59 years, though the proportion with tertiary level education is much the same and remains relatively low among young people. Enrolment rates in universities are, therefore, in general significantly lower than in the EU.

Employment prospects rise with level of education

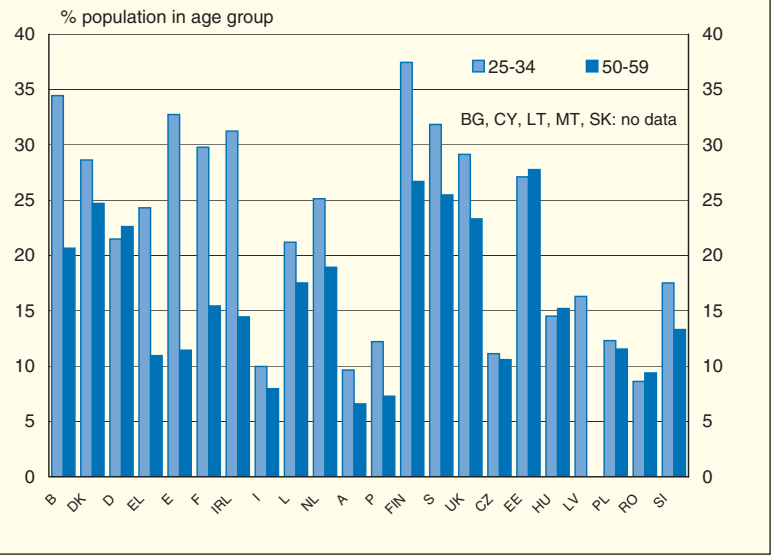
In almost all EU Member States, the level of education is an important determinant of finding employment. Except for Greece, and to a lesser extent Portugal, unemployment in the EU is much lower among those with high educational attainment levels than those with lower ones. In 1999, the average rate of unemployment of those aged 25 to 59 with a tertiary level of education was 5% as against 8% for those with upper secondary level and 12% for those with only basic schooling. In some Member States, unemployment rates of people with low education were 3 to 4 times higher than for those with high education (Graph 13).

The link between education and employment rates is even closer, especially for women. This is because a large proportion of women with low education – and a significant proportion of men – are not part of the labour force at all. In other words, education levels affect not only the chances of being unemployed, but also of being economically active.

A similar pattern is evident in the candidate countries. The difference in unemployment rates between those with differing levels of education is very marked in the Czech Republic, Hungary, Poland and Slovakia, where those with a low educational attainment level are up to 7 times more likely to be unemployed than those with a high attainment.

In Greece, Spain and Italy, in particular, as well as in most of the candidate countries, however, a

12 Population with university or equivalent qualifications by age group, 1999



significant number of young people aged 25 to 34 with a high level of education have difficulty finding a job after completing their studies, which contrasts sharply with the position of older people with similar qualifications.

It should also be emphasised that differences in employment prospects between men and women persist. Women with a given level of education are more likely to be unemployed than men with a similar level in most parts of the EU. Inequalities are particularly marked in Greece, Spain and Italy. By contrast, in most of the candidate countries, women seem to be in less of an unequal position than in the EU.

Finally, it should be noted that there is a clear positive relationship between levels of educational qualifications and earnings. In all Member States, those employed full-time with tertiary education earn significantly more on average than those with upper secondary education. The difference is over 50% in Germany, France and Austria, and 100% in Portugal. The difference in earnings between those with upper secondary and those with lower secondary education is much less in most Member States (10-20%), but still significant.

Access to continuing training still varies markedly between Member States

Continuing education and training are essential both for the job prospects of individuals and for maintaining the competitiveness of a modern economy. While indicators suggest that participation in job-related training for those in employment has increased throughout Europe, they also show that participation in training is still relatively low and that there are still large disparities between Member States. In 1999, only just over 10% of employees in the EU covered in the Labour Force Survey (LFS) had undertaken any training at all during the previous four weeks. Participation rates varied from under 5% in around half the Member States to over 20% in Netherlands, Denmark, Finland and Sweden. Although these figures involve a high degree of uncertainty and are not fully comparable between countries, they indicate that access to training is almost certainly less in the cohesion countries than elsewhere.

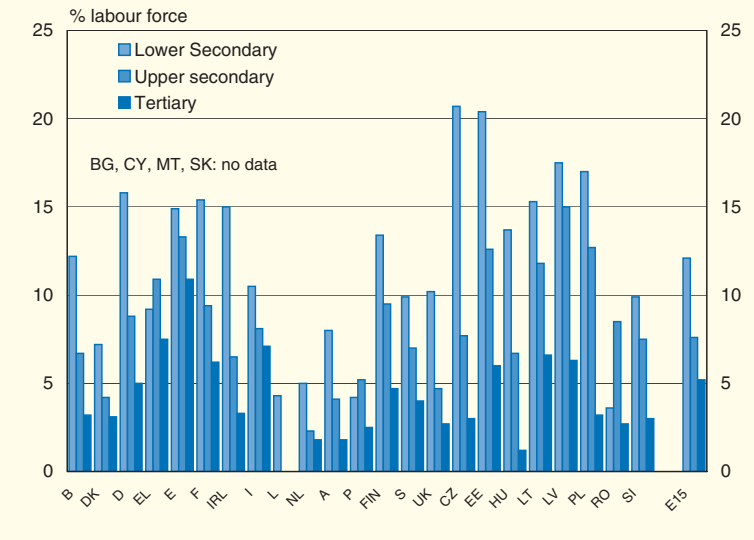
Although it took no account of the quality and relevance of training, a recent OECD survey suggests that the duration of job-related training also varies significantly between the countries covered. Annual hours of training undertaken by employees, therefore, ranged from 27 in Belgium (Flanders only) to 57 in the Netherlands.[17]

LFS evidence suggests in addition that younger workers tend to receive more training than older ones. Whereas only 2.5% of those aged 55 to 59 in the EU had participated in training or education in the reference weeks, the figure for those aged 25 to 29 was 10% and for those aged 30 to 34, 8%. Moreover, there seems to be a clear link between educational attainment levels and access to training, in all Member States, those with high education having much more opportunity to receive training than those with lower levels. Greater efforts are, therefore, needed to prevent the problems of people with low initial education being compounded by having only limited access to continuing training.

Adaptation of educational systems to ICT has started, but still has some way to go

For students to make a smooth transition into the modern labour market, they need to be exposed to information and communications technology (ICT) in school. Although the integration of ICT into the

13 Unemployment rates by education level, 1999



education system is becoming increasingly widespread across the EU, as Member States implement the conclusions of the Lisbon Council and the eLearning initiative, which called for a strengthening of ICT in systems of education, ICT is included in the primary and lower secondary curriculum in the majority of EU and candidate countries. The extent of progress in this area is, however, difficult to assess. While national data exist, there are no EU harmonised data available.

A pilot OECD study suggests that access to ICT in education, measured by the number of students per computer, varies significantly across the EU.[18] While primary schools in Finland, Sweden, and Denmark typically have between 11 and 14 students per computer, the figure in Italy and Portugal ranges from 50 to 150. In secondary schools, whereas there are an average of 7 students per computer in Sweden, Finland and Ireland, in Portugal, the figure is 65. In both primary and secondary schools, access to computers is lower in almost all Member States than in the US.

Innovation and RDT

Innovation '*is a means by which less favoured regions can move immediately alongside the developed regions, not by attempting to imitate what the latter have already achieved but by trying to lay the groundwork, in accordance with their own features and requirements (...), for adapting to the conditions of competitiveness in a global economy.*'[19]

It is widely accepted today that the ability of regional economies to withstand competition and adapt to technical change is related to their capacity to innovate. This, of course, is not new, but the increasing importance of knowledge (as compared with natural resources, physical capital and labour supply) in determining economic performance puts technology and innovation high on the regional development agenda.

The Lisbon European Council reiterated the importance of research and development, and innovation, for economic growth, employment creation and social cohesion. It emphasised the need to create a European research and innovation area and asked the Commission and Member States to carry out a series of measures in order to meet the aims set out in the Commission Communication, 'Towards a European Research Area.'

The importance of innovation was highlighted by the European Council, which called for, *inter alia,* a challenging programme for enhancing innovation and economic reform. The Commission's communication on 'Innovation Policy in a knowledge-driven economy'[20] set broad policy guidelines for enhancing innovation in the EU. As innovation has come to be understood as a key element in economic development policy, so the importance of the regional dimension has been increasingly recognised. Many measures are most effectively conceived at a regional level, where the needs of enterprises, and the environment in which they operate, can best be assessed.

Understanding of the process by which technology and innovation affects regional development has evolved over time. Rather than innovation being seen as a linear process from basic research to commercial success, a more interactive model has emerged, which recognises the importance of the environment in which firms, and SMEs in particular, operate. Indeed, since SMEs lack the articulation of business functions of large firms, they have to rely more on making use of capabilities external to the firm.

Innovation has, therefore, been associated with concepts of network formation and management and of clustering. In this respect, it no longer depends solely on how firms, universities, research institutes and regulators perform, but, increasingly, on how they work together, particularly at the regional level.

In the EU today, the capacity to innovate varies significantly from one region to another, both in quantitative and qualitative terms. To give an insight into these variations, the Commission presented in September 2000[21] a first outline of a European innovation scoreboard, which indicates the extent of disparities in this area across the EU. Certain Member States, particularly the Nordic ones, scored quite highly, sometimes even higher than the US. In terms of the number of indicators with values significantly above the EU average, Sweden had the highest score (with 12 out the 16 indicators, 20% or more above average), followed by Finland (8), Denmark and Germany (both 7).

The following examines, first, the structure of national scientific and technological systems and,

second, how the capacity for innovation varies across the EU.

Though converging, significant differences remain at the national level ...

Expenditure on research and technological development (RTD) relative to GDP has increased in recent years in the cohesion countries, but, Ireland apart, the rise has not been enough to close the gap with the rest of the Union significantly. The technology gap between the cohesion countries and the four Member States where expenditure is highest (Germany, France, Sweden and Finland) has widened rather than narrowed (Table 5).

Business expenditure on RTD declined relative to overall expenditure in Portugal, Greece and Spain between 1995 and 1998, as it did in the EU as a whole, though it rose in the top four Member States, and even more so in Ireland. As a result, the gap in innovation between the former three cohesion countries and the latter five could widen further, which could, in turn, reduce the chances of their competitiveness in EU or world markets improving.

Government expenditure also fell in Greece and Spain, though this was in line with developments elsewhere in the Union, while it remained unchanged in Portugal. The increase in overall expenditure in these three cohesion countries was, therefore, due to a rise in spending on higher education, which can be seen as a prerequisite for raising the skills of their labour force.

The significant gap in RTD expenditure which exists between the cohesion countries and other Member States, especially in terms of business spending, indicates a need for more encouragement for firms to undertake research activities and, accordingly, the adaptation of RTD policies to this end. This means taking a broader view than simply redistributing EU expenditure on RTD to these countries. In lagging regions, in particular, attempts need to be made to increase: the capacity of businesses to absorb new technology and know-how developed elsewhere; the capability of the work force to use this technology and adapt to new techniques; the entrepreneurial spirit to seek out new market opportunities and the availability of risk capital for innovation (see Table A.21).

The few data available on the candidate countries[22] suggest that since the beginning of the 1990s, the funds available for RTD have been reduced (applied research more so than science), competition for funds has increased and the demand for public RTD has fallen markedly. In 1995, RTD intensity in most countries was similar to that in the cohesion countries, while in Slovakia, Slovenia and the Czech Republic, both public and private expenditure on RTD was closer to the EU average.

The human resource potential in RTD in many of the candidate countries is relatively strong, as a legacy of the major role accorded to RTD under the socialist system, which means that they are well placed to catch up with present EU Member States, so long as there is a fundamental restructuring of the RTD system (see Map A.13).

... particularly in terms of human resources

The quality of human resources is the major factor behind the invention and diffusion of technology and it is a precondition for increasing the capacity of a given economy to absorb new innovations. The difference in this respect between the most advanced countries in the EU and the cohesion countries has been reduced during the 1990s, but it remains the case that the former have around three times as many research staff in firms as the latter.

Table 5 Expenditure on RTD in the cohesion countries and the rest of the EU, 1995-98

	P	EL	E	IRL	EU	Top 4
Gross expenditure on RTD/GDP	↑	↑	↑	↑↑	↓	↑
Business expenditure on RTD/ gross expenditure on RTD	↓	↓	↓↓	↑↑	↓	↑
Government expenditure on RTD/gross expenditure on RTD	=	↓↓	↓	↓	↓	↓
Higher education in RTD/gross expenditure on RTD	↑	↑↑	↑	↑	↑	=

Explanation of symbols: = stable, ↑ rise, ↑↑ large rise, ↓ reduction, ↓↓ large reduction

Firms in the most developed regions can count on better-targeted public assistance schemes

A third dimension of the 'technology gap' takes the form of differences across the Union in the quality and quantity of schemes for public assistance. In the case of public assistance for innovation, measured in terms of state aid to RTD in manufacturing, in the most developed Member States the amount provided over the period 1995 to 1997 was over 10 times larger relative to employment than in the lagging countries. In Denmark, Finland, France, Austria, Germany and the Benelux countries, the figure in each case was above the EU average, while in the cohesion countries, it was under 60% of the average. In addition, in the latter a much smaller share of state aids is allocated to RTD than in other parts of the Union, even though their RTD and innovation needs are greater than elsewhere.

Patent activity reflects differences in national innovation systems

Patent applications have long been used as measures of innovative activity, the output of RTD and the extent of the links between the scientific system and the productive sector. This indicator for the cohesion countries is well below the EU average, despite some convergence over the 1990s. Patent applications in Spain, Portugal and Greece amounted to 20% of the EU average in 1998 as against 10% in 1989 (Map 13).

In sum, therefore, the scientific and technological systems in cohesion countries are characterised by low RTD intensity, over-representation of the public sector, low involvement of the private sector, weak links with business and low levels of technology transfer.

Such differences give rise to problems as regards providing support since they suggest that injections of aid would bolster the existing (public-oriented) system, so perpetuating and even reinforcing the structural problems of the system itself. In consequence, regional development policies should focus on strengthening the environment in which firms operate and, in particular, the link between the scientific system and business.

Technological capacity highly concentrated at the regional level ...

The regional distribution of innovative capacity in the EU reflects the structure of national scientific and technological systems, though regional differences within Member States serve to widen disparities even further.

There is a strong concentration of RTD and innovation in the most advanced regions of the EU, the top ten regions (in Germany, the UK, France and Finland) accounting for around a third of all expenditure in the Union. At the same time, 17 of the 25 regions with the lowest RTD intensity (less than 25% of the EU average) are Objective 1 regions. Similar disparities are evident for business expenditure, human resources and patent applications.

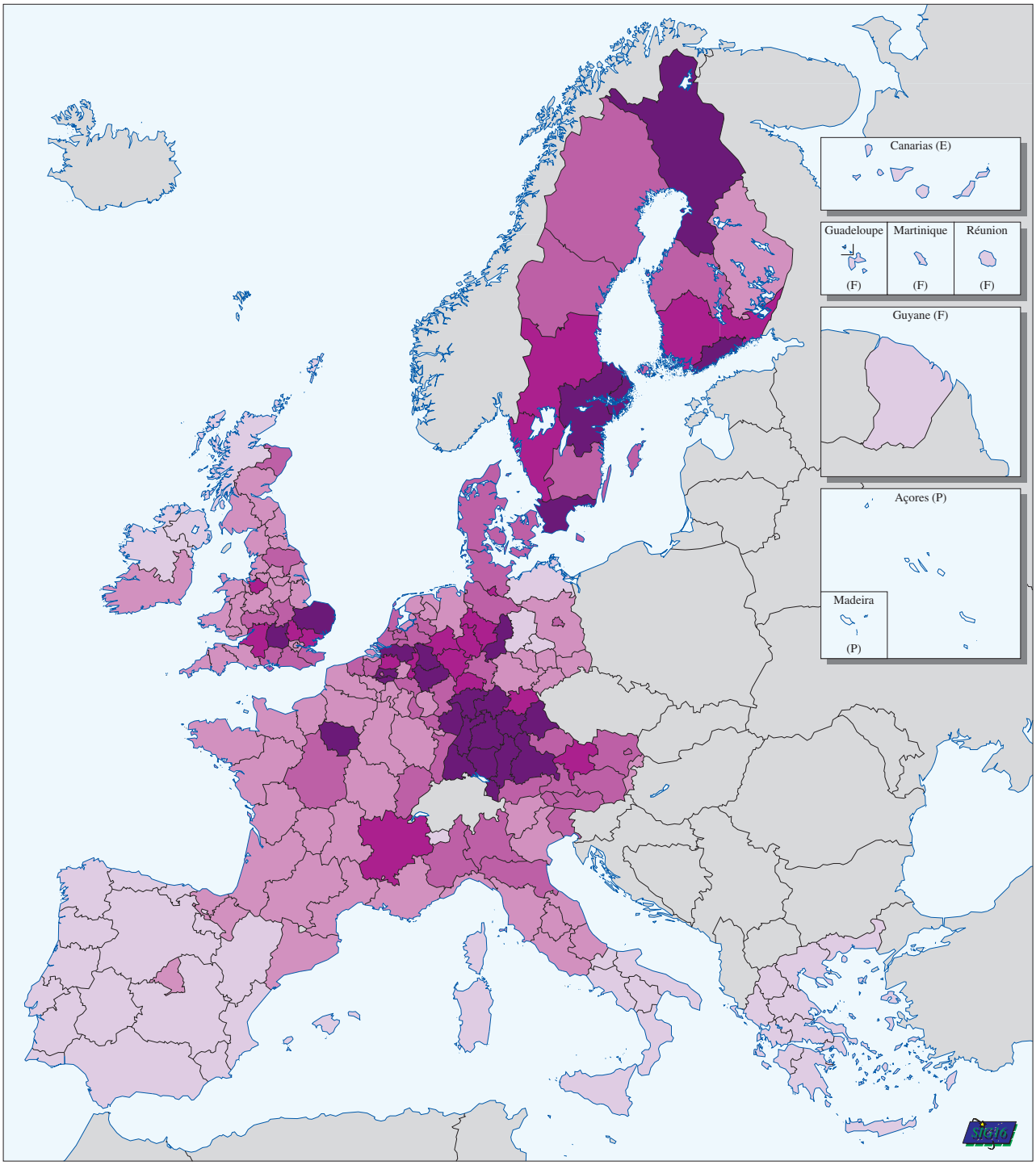
Interregional differences are particularly large in the cohesion countries. In Greece, for example, over half of RTD expenditure is incurred in Attiki (where Athens is located), which is also responsible for two-thirds of patent applications. In Spain, over three-quarters of business RTD is located in just three regions (30% in Madrid alone).

... so affecting the innovative nature of economic activity

High RTD intensity in the private sector and efficient links between the scientific sector and businesses are key to innovation and, in turn, economic growth. In almost all the top 25 regions in terms of employment in high-tech sectors (over 12% of the total), RTD intensity is also relatively high. In the 25 regions with the lowest RTD intensity, employment in high-tech sectors (4% or less of the total) is very low. According to the preliminary results of the second Community Survey on Innovation, the former group of regions are those with the highest innovation intensity in manufacturing, the highest number of enterprises with innovation activities and the highest turnover from innovative products. Most regions in Greece, Spain and Portugal, on the other hand, are at the other extreme (see Map A.14).

The importance of the regulatory, organisational and institutional environment

These structural differences in science and technology alone cannot explain the weakness of the



13 European patent applications, average 1997 to 1999

Number per million inhabitants

- < 30
- 30 - 90
- 90 - 150
- 150 - 210
- ≥ 210
- no data

EUR15 = 119.4
Standard deviation = 116.3
D (Sachsen): NUTS1

Source: Eurostat

0 100 500 km

structure of economic activity in lagging regions. There is increasing consensus that the failure of firms in the regions concerned to innovate is not due primarily to scientific or technological problems, but to shortcomings in the regulatory, institutional and organisational environment in which firms have to operate.

In the less favoured regions, this environment is often characterised by a combination of structural weaknesses, such as lack of a dynamic business services sector, a poorly developed financial system, weak links between the public and private sectors, sectoral specialisation in traditional industries with little inclination to innovate, low levels of public support for innovation and aid schemes which are poorly adapted to the needs of local SMEs. In view of this, a primary aim of regional policy should be to help develop new forms of organisation and institutional cooperation, and so improve the 'structural' competitiveness of firms located in lagging regions, and encourage resources to be shifted into more dynamic and innovative areas of economic activity.

The knowledge economy

Information and communication technology (ICT) is at the base of the knowledge economy. This makes it possible to store, process and circulate a growing amount of data rapidly and inexpensively and is an increasingly important source of productivity gains.

The transition towards the information society, however, is not just about technology. The change involved is potentially the most far-reaching since the Industrial Revolution and deeply affects the organisation of both the economy and society. Managing this change is one of the main challenges facing the Union today.

To this end, the European Commission's '*e*Europe – An Information Society for all' Initiative, endorsed by the European Council in Lisbon in March 2000, is aimed at increasing the rate of uptake of digital technologies and at ensuring that everyone has the necessary skills to use them.

On average, EU countries spend an estimated 6% of GDP on ICT (see Graph A.23). Information and communication industries are growing by more than 5 percentage points faster than other sectors, in real terms, effectively driving economic growth in the EU.[23] ICT industries accounted for around 4% of employment in the EU in 1997,[24] and it is estimated that one in every four new jobs is created in ICT or related sectors.[25] If the attention is widened to encompass the so-called 'knowledge-based sectors' these have accounted for around a quarter of employment and for most of the growth in jobs in recent years.[26]

Liberalisation of the market combined with increasingly rapid technological innovation is favouring competition in telecommunication provision, bringing down costs and enhancing the choice and quality of services in most parts of the EU. The price of accessing Internet has dropped sharply in the recent past, though price remains a barrier to more widespread use in some countries.

The potential is enormous

Electronic commerce (e-commerce) is expanding rapidly, forcing firms to rethink their business processes and creating, at the same time, new forms of organisation, including new types of market and different kinds of business relationships. Internet-based business to business (B2B) e-commerce, the main component, estimated at 80% of the total now and 90% by 2003, is developing fast and it is estimated that it will increase by over 90% a year over the period 1999-2003.[27]

The use of e-commerce technologies in B2B relationships can increase efficiency through reducing and rationalising business processes. The effects are already apparent in product design (shortening the design process and increasing customisation possibilities and the standardisation of parts), and production and logistics (lower inventory costs, faster production, lower supply costs). The spread of B2B relationships in the US is estimated to have the potential for reducing business costs by between 13% and 23%.[28] While the e-commerce market is less developed in the EU, a reduction in operating costs averaging 18% and in the cost of sales of 15% is expected (see Graph A.24).

How regions adopt and master ICTs is key to their economic performance

ICT penetration, defined as the value of ICT expenditure[29] as a share of GDP, is an important

measure of a country's transition towards the Information Society as well as of its innovative capacity and competitiveness. The difference in terms of this measure between cohesion countries and other EU Member States is small and tending to narrow – the highest rate of growth in expenditure over the period 1991 to 1999 occurred in Greece, together with Italy. In absolute terms, however, given their low level of GDP, cohesion countries will have to invest relatively large amounts in ICT in the future in order to catch up.

Though improvements in the standard of information and telecommunication infrastructure is a key determinant of the capacity to participate in the Information Society, other factors play an equally, and increasingly, important role, such as public awareness, the level of educational attainment, the role played by the public sector in promoting the Information Society and the organisational and investment capacity of firms.

The telecommunication infrastructure gap is closing

Over the past 20 years, differences between Member States in access to a fixed-line telephone have narrowed significantly (Graph 14). In most EU countries, the proportion of households with a telephone line is around the EU average of 92%, but it is still as low as 69% in Portugal as against 97% in Sweden.[30] While the figure in Finland is only 78%, this is compensated to a significant extent by the large proportion of households with a mobile telephone and no fixed-line phone (18%, almost five times the EU average). The same phenomenon is also evident, though to a lesser extent, in Portugal (12%) and Ireland (where only 84% of households have a fixed-line phone), but a fifth of Portuguese households and a tenth of Irish households do not have access to telephone services at home at all as against an EU average of just 4%. Nevertheless, there are marked differences between regions – of over 15 percentage points – in the proportion of households with fixed lines in Germany, France and Italy.

In the candidate countries, the total number of telephone lines per 100 inhabitants is less than half the EU average, though in both Slovenia and, to a lesser extent, Estonia, the number is higher.[31]

Mobile phones and cable may provide alternative access to Internet ...

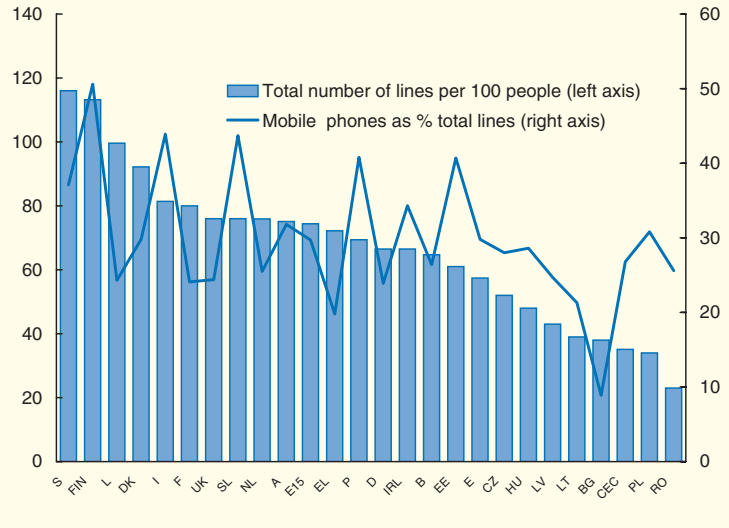
Though variations exist in the penetration of mobile telephones across the EU, differences do not reflect relative levels of prosperity. All the Nordic countries have a relatively high rate of penetration as does Italy, but in Greece, Spain, and Portugal, the rate is also around the EU average or above. Most countries, however, including the cohesion countries, which have a relatively low ownership of PCs and/or limited Internet access, have high levels of telephone use, which opens up the possibility of using mobile phones to access the Internet in the future.

It is evident that the high use of mobile phones in the Nordic countries is partly a consequence of their geographical features and the dispersion of population over large areas. In the southern Member States, by contrast, the rapid growth in use reflects the low quality, or lack, of fixed lines (see Graph A.25).

Perhaps unexpectedly, the use of mobile phones is somewhat lower in rural areas (39% of households) than in urban areas (45%).

The rate of penetration of mobile phones in the candidate countries at the end of the 1990s was only around a quarter of the EU average, though increasing rapidly (at 108% a year between 1996 and 1999).

14 Telephone lines and mobile phone penetration, 1998/99



Technology in this area is developing fast, offering new means of access to the Internet – through third generation mobile services with greater band-width – as well as ISDN, xDSL, cable and digital TV connections. Since in the future, the level of broadband access is likely to become much more important for business and household Internet use, the availability of this will be a key issue.

... but access to the Information Society remains uneven

There are significant differences across the Union in the use of PCs at home and in access to the Internet (Graph 15). France apart, there seems to be a clear North-South divide in the rate of internet connection. In Greece, Spain, Portugal and Italy as well as Ireland, the rate is half the EU average of 12%, while in the Nordic countries, it is well over 20% (in Sweden, 51%). In Greece, Portugal and Ireland, PC ownership is also low.

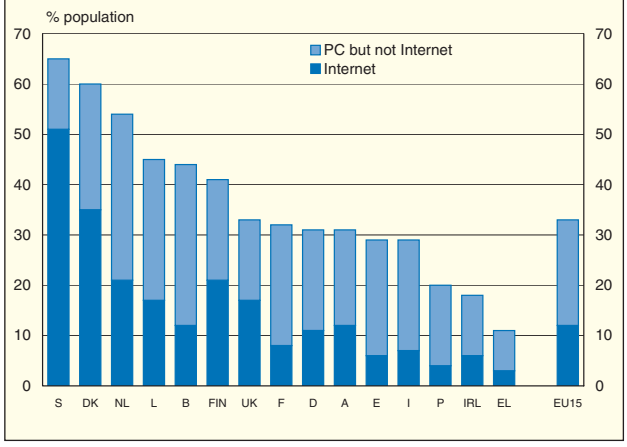
In the candidate countries, the number of PCs per 100 people has increased steadily. Three groups of countries can be distinguished: Slovenia, with a rate similar to the EU average; Poland and the Czech Republic among others, with rates similar to the cohesion countries; and Romania and Bulgaria , with rates of between 10% and 25% of the EU average.

In the EU, there is also clear evidence of a social divide, with high income households being six times more likely to be connected to the Internet than low income ones. In addition, a higher proportion of households in urban areas (13-15%) is connected to Internet than in rural areas (8%). These differences, however, seem to arise more from lack of awareness about the possibilities offered by the Internet than from the cost (45% of EU households without access report not being interested and 9% not to know about the Internet at all, as against 11% citing cost as a reason for non-connection).

Business use of the Internet is relatively high in a number of Member States, especially in the Nordic countries, though marked variations remain across the EU. For example, 76% of SMEs in Sweden are connected to the Internet but only 16% in Portugal.[32] While SMEs surveyed recently, reported that they were moderately well informed about the potential of the Internet, a third did not have access. In cohesion countries, the number without access is higher than elsewhere in the EU, which is in line with the Commission analysis that low awareness of the potential benefits and opportunities and a scarcity of ICT skills, along with the often weak content of software at present, are the main barriers to the development of the Information Society.

The focus of structural policy in this area should, therefore, be on strengthening the demand side, and in particular, the capacity of firms, institutions and individuals to use ICT effectively.

15 Access to PC equipment and the internet, 1999



1 European Commission (2000), 'The competitiveness of European industry'. See also European Commission (1999) 'The Sixth Periodic Report on the Regions' (section 2 on competitiveness), OECD (1996) 'Industrial competitiveness', Oxford Review of Economic Policy (1996) 'International competitiveness' Vol. 12, no.3.

2 EU13 figure, until the UK and IRL present their statistics. The UK is due in the coming months, IRL may not come at all (presentation of these figures is optional and not a regulatory requirement).

3 In non-market services, the figure for productivity should be interpreted with caution since the public sector does not generate profits and, therefore, value-added consists entirely of wages and salaries.

4 See, for example, Midelfart-Knarvik, Overman, Redding and Venables (1999) 'The location of European industry'.

5 These projections do not take account of future EU membership, which could affect the underlying trends, particularly of migration, though most of this movement is likely to occur between these countries and the existing EU Member States, but also, in the longer-term, birth and death rates.

6 These rates, it should be noted, are only demographic indicators. While they reflect the problems implied for social welfare and taxation systems, there are other equally important factors which need to be taken into account, particularly the number of people of working age who are actually in employment and paying taxes and social contributions.
7 Based on the latest Eurostat regional labour force scenarios, compiled in 1998, which are combined with the population projections produced in 1997. The scenarios cover 204 regions NUTS 2 level regions in the EU over the period 1995 to 2025. The baseline scenario which is referred to in the text assumes the continuation of most current trends but some reduction in regional imbalances.
8 European Integration Consortium (DIW/CEPR/FIEF/IAS/IGIER) 2000, The Impact of Eastern Enlargement on employment and labour markets in the EU Member States, study for DG Employment and Social Affairs of the European Commission; Berlin/Milan.
9 Bauer, T. and Zimmermann, K.(1999): Assessment of possible migration pressure and its labour market impact following EU enlargement to Central and Eastern Europe, Study for the UK Department of Education and Employment, IZA and CEPR, Bonn/London, Germany/UK.
10 Gross fixed capital Formation is investment net of disposals. Gross refers to the fact that it does not take into account depreciation or consumption of capital. Fixed means that only investment which is used for more than a year is considered.
11 Gross capital stock is calculated by cumulating past investment and deducting the cumulated value of investment that has been retired. Net capital stock includes depreciation and is thus probably the better measure.
12 eg Abramovitz (1989) 'Thinking about growth'.
13 Density is measured by a composite index which indicates a region's endowment in relation to the EU average. Specifically, it is an arithmetic average of the number of miles of motorway relative to its land area and population.
14 Measured in the same way as for roads, by a composite index of the length of track in a region relative to its land area and population in relation to the EU average.
15 See study on 'The impact of eastern enlargement on employment and the labour market in the EU Member States' (part B Strategic Report, chapter 3.3).
16 Eurostat, Labour Market Survey 1998.
17 See OECD: Education at a glance 2000, p.195ff.
18 See OECD: Education policy analysis 1999, p.49ff. The study only provides 1997/98 data for the following 10 EU Member States: Belgium (Flemish Community), Denmark, Finland, France, Ireland, Italy, Netherlands, Portugal, Sweden, UK.
19 CEC (1995), 'Green Paper on Innovation', European Commission, Luxembourg.
20 COM(2000)567 of 20 September 2000.
21 Innovation policy in a knowledge-driven economy – COM (2000) 567 of 20 September 2000.
22 'Impact of the enlargement of the EU towards the associated Central and Eastern European countries on RTD-innovation and structural policies', European Communities 1999.
23 'Job opportunities in the Information Society', CEC 1998, p. 4.
24 'Measuring the ICT Sector', OECD (2000). The ICT sector is defined on the basis of 11 ISIC classes. For manufacturing, the products of an ICT industry must 'be intended to fulfil the function of information processing and communication including transmission and display or must use electronic processing to detect, measure and/or record physical phenomena or to control a physical process.' For services, the industry 'must be intended to enable the function of information processing and communication by electronic means.'
25 Information Society industries include content industries (eg publishing, audio-visual, advertising) and ICT-related industries (eg computer and software, computer-related services, telecomminications equipment and services).
26 See Employment in Europe, 2000, Chapter 3.
27 Based on International Data Corporation (IDC) data, Internet Commerce Market Model, 1999.
28 Goldman Sachs US (1999), 'B2B: 2B or not 2B, e-commerce/internet' Goldman Sachs Investment Research.
29 ICT expenditure includes IT hardware, software and services, telecommunication equipment and telecommunication services, at market value.
30 Gallup Residential Survey (2000).
31 European Survey of Information Society (ESIS) in Central and Eastern European countries, CEC 1999.
32 The Gallup survey of small and medium-sized enterprises (SMEs) (2000) .

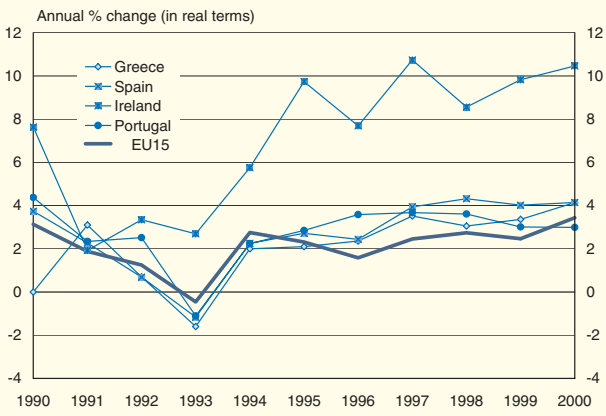
Part II – Contribution of Community policies to cohesion

II.1 Economic and Monetary Union (EMU)

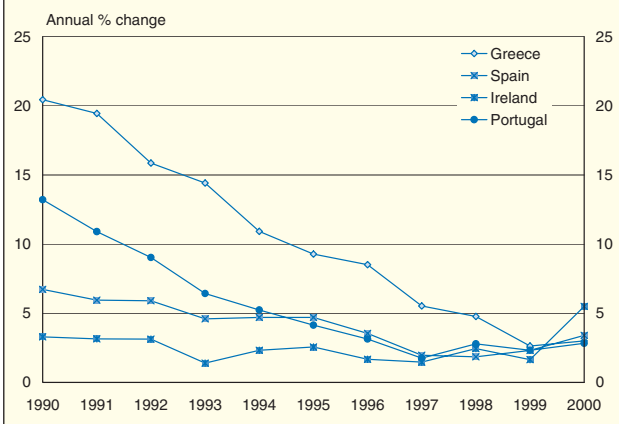
Based on the rationale that macroeconomic stability is conducive to higher real growth and that Member States' economic policies should be consistent within a currency area, the EC Treaty defines several criteria of economic convergence which need to be met in order to participate in the Euro. Having reached a high degree of sustainable convergence regarding price stability, the government financial position (deficit and debt), exchange rates and long-term interest-rates, the Council decided in May 1998 that 11 Member States could adopt the Euro as from 1 January 1999. Among those 11 Member States three are cohesion countries (Spain, Ireland and Portugal) and the fourth cohesion country, Greece, has joined the Euro area at the beginning of the year 2001.

Enhanced stability in the cohesion countries would have been more difficult to achieve outside the framework of EMU. This framework is based on coordination and surveillance of economic policies pursued by Member States, which have the main responsibility for these. The results achieved by the cohesion countries in terms of stabilisation since the beginning of the 1990s have been impressive, in particular in Greece and Portugal where inflation rates in 1990 were 20% and 13% respectively. The historically unique degree of stability in the cohesion countries provides improved conditions for private investment, which have already contributed to above EU average growth rates in recent years. Cohesion countries' performance in terms of nominal convergence, expressed by low inflation rates, and real convergence, expressed in above EU average real GDP growth, have occurred in parallel during the second half of the 1990s (Graphs 16 and 17). This trend has been particularly strong in the case of Ireland which is a good example of how real and nominal convergence go hand in hand since the mid-1980s, when a long-term strategy of a consistent, stability-oriented macroeconomic policy-mix was started (see Box). Catching-up was somewhat slower in Spain and Portugal. In Greece, important achievements in nominal convergence since the mid-1990s have translated into a positive growth differential *vis-à-vis* the EU which had not been the case since the 1970s.

16 GDP growth in cohesion countries, 1990-99



17 Price inflation in cohesion countries, 1990-99



In order to ensure that these achievements in terms of stabilisation are not merely temporary, procedures of multilateral economic surveillance and coordination have been reinforced within the EU, which encompass different areas of economic policy, such as budgetary policies, employment policies, structural reform and macroeconomic dialogue with the social partners. Given the achievements in macroeconomic stability, more emphasis has now been put on the smooth functioning of product, capital and labour markets which allow the full benefits of EMU in terms of growth and cohesion to be realised. Although taking place at varying speeds in different Member States, the liberalisation of markets and the privatisation of public enterprises have not only contributed to budgetary consolidation by reducing the need for subsidies, but – even more importantly – have also improved the overall efficiency and competitiveness of these economies. Without sufficiently open and flexible markets, Ireland's high growth rates would hardly have been sustainable. The creation of more efficient product and capital markets in the 1990s has enabled the Portuguese economy to move rapidly towards macroeconomic stabilisation without creating major imbalances. Labour market reforms in Spain in the second half of the 1990s have contributed to higher growth in both employment and GDP. Nevertheless, structural reforms in the cohesion countries, particularly in Greece, need to be further reinforced.

The introduction of the Euro also benefits growth due to increasing market integration through the lower transaction costs achieved from eliminating the need for currency exchange and the associated risk, as well as the costs of comparing prices. An idea of the size of the initial regional effects of monetary union can be gained from the trade-related exchange costs estimated for 1994.[1] The estimates were produced by multiplying the trade of each region with other Euro-area countries by the respective bid-offer spreads between currencies participating in the Euro (Figure A.15). The results suggest that it is national rather than regional characteristics which determine the scale of economies and that exchange costs are high in regions where:

- exchange rate volatility *vis-à-vis* the stable core of the Deutschmark area had been high, which means, in particular, for regions in Spain, Ireland, Italy, Portugal and Finland;
- the share of foreign trade with other Euro-area countries is high, which is especially the case for the six founding members of the European Community;
- the share of production of manufacturing goods is high, as in the north-east of Spain, the east of France, the north-east of Belgium, the north-east of Italy and the north of Portugal; by contrast, in major cities and peripheral regions, where services predominate, exchange cost savings are relatively small.

These initial or static effects of the introduction of the Euro will trigger dynamic effects on the structure of production as competition increases, economies of scale are realised, products become more diversified and the pace of innovation and growth is accelerated. Accordingly, there are likely to be changes in regional markets for goods, capital and labour. Some specific effects of monetary union on capital and labour market integration are worth mentioning.

Lower transaction costs are likely to affect the price and availability of capital, since interest rate differentials between participating Member States will be reduced because of the disappearance of exchange rate risk premiums and an increase in the efficiency of financial markets which were previously fragmented. Since January 1999, financial markets in the Euro area all trade in Euros, the most visible sign of monetary union. Capital can more easily be transferred within the EU to investment in locations where it yields the highest return, which is no longer subject to the uncertainty caused by the possibility of exchange rate fluctuation. As a result, the specific characteristics of different regions assume more weight in the competition for mobile capital.

A widespread concern regarding the impact of the Euro on labour markets is that by making it easier to compare wages in participating countries, greater transparency could lead to them being equalised. However, wage differences between countries reflect underlying differences in productivity. Regional competitiveness depends not only on labour costs as such, but on costs in relation to labour productivity (i.e. on unit labour costs) among many other factors.

The Irish experience

The basis of the recent performance of the Irish economy was established during the 1980s, though the most striking results did not appear until the mid-1990s. In essence, it was the fear of an unsustainable growth in public debt and in debt interest – particularly because a large part of debt was in foreign hands (over 40% in 1987) – which sparked a rethink of policy and a move towards budgetary consolidation.

Budgetary consolidation was achieved mainly by controlling public expenditure which was reduced from 50% of GDP to around 30% – in part through a reduction in debt interest – and which served to transform a budget deficit of over 10% of GDP in 1985 into a surplus.

At the same time, tax reductions and fiscal reform played an important role in the tripartite agreements reached between Government, trade unions and employers (on four occasions since 1988), which enabled a growth of labour costs to be achieved which was compatible with low inflation and a substantial improvement in competitiveness. Moreover, because the growth in real terms was well below the growth of productivity, it also led to a marked increase in the profitability of investment. Despite pay restraint, real wages were able to grow significantly, especially in the second half of the 1990s, fuelling a strong increase in private consumption and domestic demand.

Budgetary consolidation and wage moderation enabled the Maastricht criteria to be fulfilled and monetary conditions to be eased. This, together with convergence of interest rates towards the level required by EMU, the strengthening of competitiveness and increased profitability created particularly favourable conditions for rapid growth of output and employment during the latter part of the 1990s, without endangering price stability.

Because of the improvement in competitiveness, growth was export-led from the beginning. Moreover, investment progressively became a more important source of growth as capacity utilisation increased, profitability rose and monetary conditions eased. Between 1994 and 2000, investment increased by over 13% a year, rising from around 16% of GDP to 25%.

Foreign direct investment (FDI), which remained a key objective of development strategy, was important not only in expanding the capital stock but also in transferring technology. This led to clusters of highly competitive and dynamic foreign-owned manufacturing companies being established, particularly in electronics and pharmaceuticals, and more recently, in internationally traded services, such as financial services and call centres.

The macroeconomic policies pursued were coupled with an active structural policy, including training of the work force to avoid high rates of growth being constrained by shortages of skilled labour. Growth of the labour force was stimulated by reform of the tax and social protection systems as well as by the return of emigrants. The employment rate, therefore, increased from around 52½% of working-age population in 1985 to 62½% in 1999.

The other element which deserves emphasis is the contribution of the Structural Funds, which not only increased the net capital inflow into the economy but more importantly co-financed structural measures for regional development, expansion of infrastructure and increased training of the work force. Ireland demonstrates what can be achieved if Structural Funds assistance is integrated into a coherent policy which, in particular, maintains healthy macroeconomic conditions and which is supported by social consensus. It is an example of 'good practice' of the first order.

1 Hallet, Martin 1999, The Regional impact of the single currency, in Manfred M. Fischer and Peter Nijkamp (eds.), 'Spatial dynamics of European integration – Regional and policy issues at the turn of the century', Springer-Verlag: Berlin, pp. 94-109.

II.2 Internal market

Integration and structural policies

This section examines, first, the extent of economic integration in the wider Europe – in both the existing EU Member States and the candidate countries – in terms of the convergence of price levels, the expansion of trade and the growth of direct investment. Secondly, it considers whether the structure of economic activity, in terms of its distribution between sectors, is becoming more or less similar between countries and regions, which reflects the extent to which these are becoming more or less specialised in the production of particular goods and services. Thirdly, it examines the possible social effects of closer integration.

Competing economic theories suggest that, on balance, closer integration should lead to a narrowing of disparities between the economies involved. However, such convergence is by no means assured and where it occurs, it could take a longer time than is socially or politically acceptable. The analysis of the previous chapter confirms that differences in income (GDP) per head both between Member States and regions appear, in fact, to have been reduced over time.

Within the global trend, there have been significant differences of experience, and while catching up has been rapid for some parts of the Union, for others, the gaps have failed to close. Attributing cause and effect to these developments is difficult. In effect, they have coincided with, on the one hand, moves towards economic and monetary union, and, on the other hand, the introduction of cohesion policies to increase investment in the weaker parts of the Union under the Structural Funds. In Part III of this Report, the impact of the latter policies is examined in more detail.

Price differences, trade and investment flows

Narrowing price differences

As economic integration proceeds, costs of transactions between markets tend to decline so narrowing price differences. In the Union, the evidence suggests that prices across the Union are indeed becoming more similar (as shown by a recent study based on a Eurostat price survey of 270 product groups[1]). This is particularly so for manufactured goods, which are generally subject to trade, though in some cases – motor vehicles, for example – prices still differ markedly between Member States. Price differences continue to exist, however, for most services, including housing, and non-traded goods, reflecting the variation in local market conditions (see Table A.22 in Annex).

Evidence also suggests that prices of industrial goods, especially machinery and equipment, in some of the more advanced Central European countries have already become similar to those in the EU, which is perhaps to be expected given that a large part of the market is supplied by imports from the Union.

Conditions in financial markets in the EU, which were already becoming integrated during the 1990s, have become increasingly similar since the introduction of the Euro. This is particularly evident as regards nominal long-term interest rates, which reflect both expectations of future inflation rates and conditions on capital markets, which have converged to much the same level (see Graph A.26).

Cohesion country trade patterns approaching those in the more prosperous Member States

Trade between EU Member States continued to expand during the 1990s, the increase being particularly pronounced for Finland and Sweden following their accession to the EU. At the same time, there was an even stronger increase in the trade of all Member States, especially Ireland, with countries outside the Union. This reflects two factors: first, the continued process of globalisation and the further reduction of trade barriers in the context of the Uruguay round, secondly, the higher rate of growth of markets in the rest of the world, especially the US, than in the EU (see Graphs A.27-A.29). The EU economies, therefore, seem to be becoming more closely integrated into the global economy at the same time as their integration with each other continues to increase.

The effects of economic integration can also be seen in the changing pattern of trade, which tends to become more similar between countries as they become more interdependent. The evidence on trade flows indicates that the extent of intra-industry trade (which measures the similarity of the composition of exports and imports) is high for all EU Member States. This index, calculated for the EU12 (ie the euro-zone) countries' intra-EU trade from 1988 to 1998, shows that Greece, Ireland and Portugal still have a considerably lower degree of intra-industry trade than all other countries, which is suggestive of the existence of a 'development gap' regarding their productive structure. In Portugal, however, intra-industry trade has increased significantly even though the index is still lower than for all other countries except Greece. For most other countries, the index has increased, with the biggest increase having taken place for Spain, which has now a higher level than many other Member States (see Graph A.30).

CECs are not competing in the same sections of the market as EU Member States

Trade between the EU Member States and the 13 candidate countries (ie including Turkey) expanded rapidly over the 1990s, boosted in part by European agreements, and the former have become by a long way the most important trade partners of the latter. Between 1993 and 1999, the value of trade between the two groups of country multiplied by almost three times, to EUR 210 billion. The candidate countries together accounted for 13.7% of the total external exports of the Eu in 1999. The EU trade surplus with them declined significantly in 1999 but still stood at EUR 25.8 billion, 45% of it with Poland and 20% with Turkey. Both the EU share of CEC exports and the share of EU goods in CEC imports have continued to increase. The figures are highest in Hungary, where the EU share of imports was 64% in 1999, while 76% of Hungarian exports went to the EU, and in Estonia, where the figures were 65% and 73%, respectively. Growth in both these shares is also evident in the other countries, even in those, like Latvia and Lithuania, where they were relatively low.

The provisions on free trade in the European agreements with the 10 CECs have opened the way to their economic integration with the EU, and the additional agreements on agriculture, recently adopted, will advance this further. As a result, the proportion of agricultural trade exempt from duty has more than doubled from 36% to 81%, in the case of imports into the EU, and from 18% to 39%, in the case of exports to the CECs. Moreover, it has been agreed to pursue negotiations with each of the countries with a view to increasing these figures further.

In general, all countries are likely to gain from an expansion of trade, particularly those which have already established trade relations and close interdependencies in certain sectors, which tend to be those closest to the EU, on the one hand (Hungary, the Czech Republic, Poland and Slovakia), and to the CECs, on the other hand (Austria, Germany and the Nordic countries)(see Graphs A.31 and A.32).

The composition of trade between the EU and the CECs broadly conforms with expectations, given respective comparative advantages. EU exports are more concentrated than CEC exports in high-tech and advanced manufactures where labour skills are important. For most CECs, exports largely consist of relatively labour-intensive products, especially in the case of Romania, Poland and Slovakia, as well as resource-intensive ones, especially as regards the Baltic States and Bulgaria. On the other hand, the composition of exports of Slovenia, Hungary and the Czech Republic are more similar to their imports from the EU and consist to a larger extent of high-tech products (engineering goods and vehicles, especially).

Moreover, for the latter countries especially, intra-industry trade has grown relative to inter-industry trade

over the 1990s. Nevertheless, a detailed analysis of the kinds of product traded within commodity groups reveals that EU exports are concentrated in higher unit value, higher quality section of the market, where labour force skills and R&D are important, whereas the CECs specialise in the lower price and lower quality end of the market, producing, for example, components which are then exported to the EU for assembly into final products. Of the CECs, only Hungary appears to be moving towards more technology- and skill-intensive engineering industries.

The conclusion seems to be that most of the CECs are not yet effectively competing in the same sections of the market with even the southern EU Member States, given the large differences in unit values between the exports of the two which exist. This suggests that the fear among the latter that enlargement could result in a large loss of their export markets is misplaced.

Trade accompanied by growing Foreign Direct Investment in the EU ...

Economic integration occurs not only through trade but through foreign direct investment (FDI), by businesses setting up branches in other countries, to gain access to the market – especially important as regards services – and to take advantage of lower production costs. Provisional data from Eurostat (on FDI averaged over the years 1998 and 1999) indicate that FDI inflows are larger for Ireland, Sweden and the Benelux countries relative to GDP than for other Member States, though in the case of Ireland and the Netherlands, most of this originates from countries outside the EU (see Graphs A.33 and A.34).

A large part of FDI takes the form of mergers and acquisitions, the number of which almost doubled between 1991 and 1999 (from 2872 to 5572, most of the increase taking place since the recovery in 1994). The number of mergers between EU companies, or between companies where an EU company is a bidder, has risen significantly in recent years, suggesting a move towards increased concentration of economic activity and a strong desire of companies to become larger, perhaps to be able to compete more effectively in international markets (see Graph A.35).

… with important flows into the East

EU companies are responsible for most of FDI flows into CECs, which increased significantly during the second half of the 1990s. Although the scale of flows is negligible in relation to the GDP of EU Member States, it is substantial in relation to the GDP of the recipient countries (annual flows amounting to around 5% of GDP of CECs) and is responsible for a large part of their total capital investment (around 20%). As such, FDI has had a major impact on growth and productive potential.

Much of this FDI, however, has been concentrated in three countries, Hungary, the Czech Republic and Poland, each of these accounting for 25-30% of the total (see Graph A.36). Although FDI figures are not reported at the regional level in a comparable way, selected data show that capital cities and their surrounding regions and the industrialised regions bordering the EU received a disproportionate share of investment (two-thirds of FDI to Hungary went to Budapest, 62% of the total going to Slovakia went to the Bratislava region, almost half of flows to Latvia went to Riga and the Tallinn area accounted for 80-90 % of FDI going to Estonia).[2]

FDI flows unlikely to affect employment and wages in the EU

According to most studies, the main motive for investing in CECs is to gain access to their markets. The fact that over half of investment is in non-traded sectors demonstrates this, but it also seems to be the case so far as investment in traded sectors is concerned. This view is also supported by the fact that most FDI takes the form of mergers and acquisitions of existing companies rather than investment in 'green field' sites (i.e. in new production facilities). Accordingly, it would seem that investment in CEC ought not to affect employment and wages in the EU greatly and that it complements, rather than replaces, exports from the EU.

The impact of integration: concentration or specialisation?

There is an ongoing debate as to whether closer economic integration, and in particular, the introduction of a single currency into a Single Market, is likely to increase or reduce the degree of regional specialisation, which is important for assessing whether or not regions are likely to become more or less vulnerable to sector-specific shocks. The evidence of the US, at least so far as manufacturing is concerned, points to specialisation increasing,[3] but it cannot necessarily be as-

sumed that US experience will be replicated in Europe. This uncertainty is reinforced by the fact that studies so far have tended to focus on manufacturing industry, where the factors giving rise to increased concentration and agglomeration – in the form of economies of scale in production and proximity to suppliers and other producers in the same industry – are most evident. In practice, however, manufacturing is becoming less important in the Union in terms of both GDP and employment, accounting for only around a quarter of the latter, and the future location of economic activity in the EU will depend critically on the location pattern of a number of key services (the 'new economy'), which will not necessarily follow that of manufacturing.

Differing trends in regional concentration of sectors

Studies confirm that manufacturing activity in the Member States is slowly becoming more concentrated.[4] The trend is not uniform, however. A number of industries that were initially spatially dispersed have become more concentrated, mainly unskilled labour-intensive ones with declining output or slow rates of growth (textiles, clothing and footwear, in particular), which have become more concentrated in southern Europe. For the regions dependent on these sectors today, there is an increased vulnerability to economic shocks similar to that which has provoked economic restructuring in the northern regions over recent decades. At the same time, around half of medium and high tech industries that were initially spatially concentrated remained so (aircraft, motor vehicles, electrical engineering, for example), while others with a highly skilled labour force and with relatively high rates of growth (office machinery, radio, TV and communications, precision instruments, for example) became more dispersed. The latter have typically spread from the central part of the Union to Ireland, Finland and southern Member States (see Table A.23).

Analysis of the forces underlying the changes indicates that resource endowment and market potential (proximity to main markets) are of key importance. Within the former, endowment of capital, the driving force behind the location of capital-intensive industries in the 1970s, seems to have lost importance in relation to the availability of an educated labour force, which has become key to determining the location of skill-intensive industries in the 1980s and 1990s. As educational attainment levels are likely to become more similar across the Union, this should be a factor working against increased spatial concentration. At the same time, market potential has become increasingly important for the location of industries with strong forward and backward linkages, central locations attracting industries higher up the value-added chain. On the other hand, the importance of market potential for industries with large potential economies of scale has declined markedly over the period.

Services an increasingly important but complicating factor

Analysis at the regional level and the inclusion of services in the picture seems to alter the conclusions, though so far the analysis conducted has incorporated only very broad service sectors so that the results need to be interpreted with caution. Not surprisingly, when a few broadly defined service sectors are included, regions appear to have become more similar in terms of the sectoral structure of their economic activity, since all regions have experienced a shift towards services. Whether this result is repeated once services are disaggregated much more and once business services, in which job creation has been especially high, are distinguished, remains to be investigated, although it is perhaps significant that the broad category of market services, together with financial services, seems at present to be relatively highly concentrated.

Nevertheless, whatever the locational forces at work, a general conclusion of the studies carried out is that the structure of economic activity tends to be slow to change, because of the scale of investment required over the long-term to alter the pattern markedly. Over the past 20-30 years, therefore, the sectoral distribution of economic activity has not changed greatly in most Member States and regions. There are, however, exceptions, such as Ireland, where growth has been more rapid and FDI much higher than elsewhere, or Finland, where the decline in GDP in the early 1990s and the subsequent restructuring of economic activity, caused in part by the collapse of the former Soviet Union, have been greater than in other parts of the Union.

The social effects of integration

While increased specialisation will tend to favour those employed in the sectors for which demand is

expanding in the different economies – highly-skilled workers in the more advanced economies, low-skilled workers in the less advanced ones, where production is concentrated in low-wage, labour-intensive activities – in reality, as seen above, the outcome is unlikely to be this simple. Most trade in the EU is of an intra-industry kind, where similar goods are exchanged, and this is likely to become increasingly the case in future years.

In practice, the decline in demand for low-skilled workers, and the consequent social problems caused by their unemployment, tends to result from technological advance, which favours the more highly skilled, and highly educated, more than from trade. This implies that the problem for policy is not to seek to slow down the process of integration, but to increase the education and skill levels of workers, as well as to increase the relevance of what they are taught for the jobs for which demand is expanding.

A recent World Bank study of income distribution in 80 countries over four decades provides encouraging evidence that there is a close relationship between overall growth and the average income of the poorest 20% of the population, and that this is the case irrespective of the degree of openness to foreign trade.[5] At the same time, in many countries, the relative position of the poorest in society has not improved greatly over this period, and in some it has deteriorated. Similarly, the distribution of income is more unequal in the US than in Europe and social exclusion is no less of a problem (though it seems to arise from different sources, from a withdrawal from the work force and low rates of pay more than from unemployment) despite the closer economic integration between regions.

This suggests, as in the case of regional convergence, that the policies accompanying closer economic integration, in this case social protection and active labour market policies, have an important role to play in determining the outcome. Closer integration creates a more favourable environment for a reduction in social inequalities, but it does not necessarily ensure that such a reduction is realised.

Concluding remarks

The conclusion which seems to emerge from this analysis is that the process of economic integration tends to favour a general trend towards a narrowing of disparities. Nevertheless, economic theory suggests that this is conditional on integration being complete whereas partial integration may well have adverse effects. European policies to establish economic and monetary union and the breaking down of barriers appear to have contributed positively to convergence, not least, by promoting greater macroeconomic stability, increased internal trade through lowering transaction costs in their widest sense and more competition, all of which are favourable to economic growth.[6]

At the same time, the impact at the level of individual regions is unpredictable, given that faster growth is inevitably accompanied by economic restructuring and given the multiplicity of factors – social and political as well as economic – that contribute to economic development. In these circumstances, it seems essential to adopt a wide-ranging approach with a number of different measures aimed at tackling the factors which determine competitiveness. This is the political conclusion on which the Member States have agreed, as reflected in successive generations of structural policies that are the subject of analysis in Part III of the report.

1 European Commission, Market integration and differences in price levels between EU Member States, in 'The EU Economy – 1999 Review', (European Economy) Brussels/Luxembourg 1999.

2 Cf. DIW/ EPRC, 'The Impact of EU Enlargement on Cohesion', draft final report of a study for the Regional Policy DG of the European Commission, Berlin and Glasgow 2000, p. 39f.

3 See Paul R. Krugman, Lessons of Massachusetts for EMU, in Francisco Torres/ Francesco Giavazzi (eds.), 'Adjustment and growth in the European Monetary Union', Cambridge 1993, pp. 241-269.

4 Karen-Helene Midelfart-Knarvik/ Henry Overman/ Stephen Redding/ Anthony J. Venables, 'The Location of European Industry'; report prepared for the Economic and Financial Affairs DG of the European Commission, Economic Paper No. 142, Brussels 2000. In spite of some differences in data and methodology, many of the results have been confirmed by another study carried out for the Commission: Karl Aiginger/ Michael Böheim/ Klaus Gugler/ Michael Pfaffermayr/ Yvonne Wolfmayr-Schnitzer (WIFO): 'Specialisation and (Geographic) Concentration of European Manufacturing'; Enterprise DG Working Paper No. 1; Background paper for the 'The Competitiveness of European Industry: 1999 Report', Brussels 1999.

5 David Dollar / Aart Kraay 2000, 'Growth Is Good for the Poor', The World Bank, Development Research Group, Washington D. C., March 2000; (can be downloaded from www.worldbank.org/research).

6 While the high costs of accessing markets initially lead firms to be geographically dispersed and to produce for local markets, their eventual reduction makes central regions more attractive. The proximity of a large market and the realisation of economies of scale can lead to a process of agglomeration. However, full integration which results in the near elimination of transaction costs can make peripheral regions, which have maintained their low cost advantage, attractive locations for firms.

II.3 Competition policy

The provision of State aid is one of the instruments at the disposal of national and regional authorities to influence the spatial distribution of economic activity. The results of the Eighth Survey on State aid in the EU[1] show that State aid still occupies a central place in the industrial and regional policies of most Member States. Over the period 1996 to 1998, the total amount of State aid granted in the Union averaged EUR 79.8 billion a year, or 2.4% of total government expenditure (though this was slightly less than over the period 1994 to 1996 – see Table 6).

The results of the Survey show that there are significant disparities between Member States in the granting of State aid. In terms of all three indicators presented in the table below, the difference between the lowest and the highest level is three to one.

The following features are apparent:

- expenditure on State aid per person employed and per head of population in the four cohesion countries in terms of Euros has remained well below the EU average, and well below that in many of the more prosperous Member States, such as Germany, Italy, France and Belgium, though the gap deminished over the period 1994 to 1998; in the period 1996 to 1998, the cohesion countries accounted for 10.5% of total expenditure on State aid in the EU as against 9.5% in the period 1994 to 1996;

Table 6 Overall national aid in Member States 1994-1996 and 1996-1998

	% GDP (at 1997 prices)		EUR per person employed		EUR per head		% Government expenditure	
	1994-96	1996-98	1994-96	1996-98	1994-96	1996-98	1994-96	1996-98
Austria	0.65	0.65	342	353	143	147	1.17	1.23
Belgium	1.26	1.18	698	677	255	249	2.33	2.26
Denmark	0.99	0.94	526	513	257	257	1.60	1.59
Germany	1.97	1.45	1.007	786	430	327	3.96	2.95
Greece	1.36	1.24	352	334	131	125	2.38	2.25
Spain	1.14	0.98	367	318	132	120	2.47	2.22
Finland	0.50	0.47	249	248	96	97	0.85	0.85
France	1.11	1.13	588	618	225	237	2.02	2.08
Ireland	0.88	0.99	389	497	137	188	2.12	2.66
Italy	1.83	1.57	809	712	314	276	3.38	3.04
Luxembourg	0.99	0.53	624	343	324	188	2.24	1.27
Netherlands	0.65	0.62	362	349	127	126	1.23	1.24
Portugal	1.37	1.63	260	323	117	148	2.98	3.44
Sweden	0.99	0.78	476	388	220	178	1.49	1.24
UK	0.54	0.52	227	223	99	100	1.17	1.20
EU15	1.32	1.12	591	526	235	214	2.54	2.35

Excluding agriculture and Structural Funds expenditure

- the volume of State aid has declined in recent years, especially in the more prosperous Member States, where expenditure per head and per person employed is above the EU average. The main exception is France, where in recent years, expenditure increased significantly, in both absolute and relative terms.

Given its effect on the regional distribution of economic activity and income, the control of State aid will remain a key instrument of Community cohesion policy. Allowing high levels of State aid in the most prosperous Member States and regions would undermine the effectiveness of both Community and national regional policy efforts in support of the weakest regions. Financial assistance to support businesses in the latter is vital to correct regional disparities, and it is important that the effectiveness of this is not compromised by the granting of disproportionate State aid elsewhere. Strict control of State aid should, therefore, be regarded as an essential complement of Structural Funds support for the less favoured regions.

Regional State aid is by far the largest single category of State aid in the EU. Between 1996 and 1998, Member States granted EUR 18.8 billion in State aid for regional purposes, which represented 57.6% of all State aid granted to industry and services in the Union. In the 1990s, there was a proliferation of regional aid measures throughout the Community, and a gradual extension of the areas qualifying for regional aid, giving rise to a real danger of the effectiveness of regional aid being undermined as a means of furthering economic and social cohesion.

At the end of 1997, the Commission adopted new Guidelines on national regional aid, with the aim of strengthening control over its deployment. These consolidated the criteria used to assess the compatibility of national regional aid measures and clarified the rules for the demarcation of regions qualifying for aid under Article 87(3)(a) and (c) of the Treaty. Member States were invited to bring their existing regional aid systems into line with the new rules by the year 2000.

A key element of the exercise was the review of regional aid maps in each country, with a view to bringing about a sizeable reduction in the coverage of aid. In the course of 1999-2000, new regional aid maps were established for each Member State. The main aims were achieved, in that the new maps were defined on the basis of a transparent and objective method which ensured equal treatment for all Member States. At the same time, the total population in the EU covered by regional aid was reduced from 46.7% to 42.7%. A strict application of the eligibility criteria has resulted in a tighter demarcation of the assisted regions, enabling Member States to focus regional assistance on the regions suffering the most severe economic problems and so increasing its effectiveness.

A final element to take into account is the role that services of general economic interest can play in lagging regions, as stated in Article 16 of the Treaty.

1 Commission of the European Communities, Eighth survey on State aid in the European Union, COM(2000)205 Final, 14.4.2000.

II.4 The Common Agricultural Policy: price and market policies

Political and budgetary aspects

Developments, current situation and prospects

In expenditure terms the Common Agricultural Policy (CAP) is the most important policy of the EU. The CAP reform of 1992 and the *Agenda 2000* reform initiated a shift from price support policies to direct payments for farmers based on historical yields.

In July 1997, the publication of *Agenda 2000* presented a new reform of the CAP. A number of key priorities were defined, including securing the competitiveness of the agricultural sector, encouraging cultivation methods which contributed towards maintaining and improving rural areas and landscapes and protecting the sources of farmers' income, while at the same time encouraging the development of the rural economy as a whole. The reform included two important strands. First, official prices were reduced. Secondly, a new framework was established for rural development policy, which was regarded as the central element in the reform and, from then on, as the second pillar of the CAP.

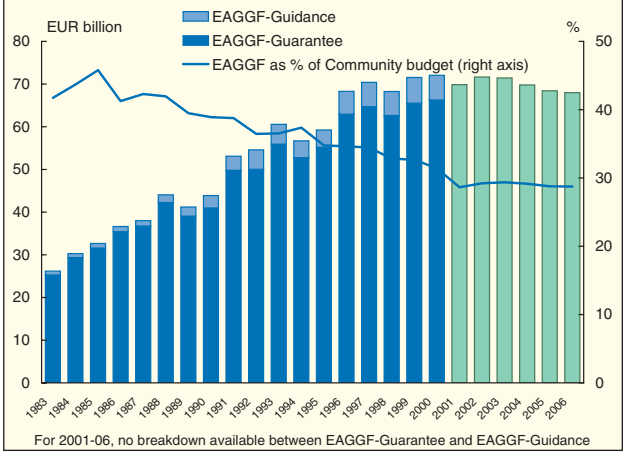
Budgetary aspects

In 1998, the Guidance and Guarantee sections of the EAGGF, ie the source of the overall financing of the two pillars of the CAP, accounted for 54.6% of the European Union budget, or EUR 43.3 billion. Price and market support from the Guarantee section of EAGGF alone represented 48.9% of total Community expenditure, or EUR 38.7 billion (all the following references in this section to the EAGGF are to the Guarantee section). The prospects for the period 2000 to 2006 are for a broadly unchanged level of overall agricultural expenditure but for a reduction in relative terms, to EUR 44.8 billion in 2002, 46.8% of total appropriations, and EUR 42.5 billion in 2006, 46.0% (Graph 18).

Since the 1992 reform, direct payments for assistance and, to a lesser extent, the amount going to rural development, represent growing shares of total expenditure on agriculture at the expense of spending on market support and payments to exports. The latter two categories accounted for only 29% of total expenditure in 1998 as against 82% in 1992 (see Graph A.37 in Annex).

The substitution of direct aid payments for market support has increased the share of subsidies in agricultural income. In 1998, subsidies represented, on average, 28.6% of agricultural income in the Union as against 15% in 1990 and 5% in 1980. Overall, they have contributed to stabilising income.

18 EAGGF expenditure, 1983-2000, and forecasts for 2001-06



France (23.2%) and, to a lesser extent, Germany (14.3%) remain the main beneficiaries of the EAGGF. Since 1998, Spain (13.7%) has taken third place ahead of Italy. These three countries receive more than half of total EAGGF expenditure. For the rest, the share of Portugal, though low, has increased over the past 10 years, from 0.6% to 1.6% (see Table A.24).

The ranking of Member States, however, is changed considerably if expenditure is related to the numbers employed in agriculture. The cohesion countries, except for Ireland, are at the bottom of the list because of the large numbers employed. Where, as in the Mediterranean, a more labour-intensive type of production predominates (in Greece, Spain, Italy and Portugal), some 8½% of employment is in agriculture, due in part to smaller average farm size. EAGGF expenditure per person employed, however, has tended to increase over the past 10 years, as employment has declined, and the gap between countries receiving the least (Portugal in particular) and the most has narrowed (see Table A.25).

Contribution of agricultural price and market support to national cohesion

The impact of the CAP – or at least the first pillar – on cohesion is linked to the large redistribution of income among European citizens stemming from transfers between social groups, sectors, regions and Member States. The current shift from price support to direct payments implies a shift in transfer flows. This has distributional implications for consumers and taxpayers. With market price support, low income consumers pay a disproportionate share of transfers relative to their share of income and they are, therefore, expected to benefit from reduced domestic price levels.

The CAP also involves large transfers between Member States and regions. The amount of such transfers can be calculated from budgetary information together with estimates of the effect of international trade.[1]

The patterns of transfers between Member States in 1998 was very similar to that in 1993: net contributors and net beneficiaries were the same (see Table A.26). In 1998, net transfers were positive for 5 Member States, three of which were cohesion countries (Spain, Ireland and Greece). The change in the scale of such transfers differs between Member States. The amount rose considerably for Spain and France between 1993 and 1998, largely because of increases in direct payments (especially to cereal producers). The rise was smaller for Ireland and was the result of positive trade transfers, high payments to beef and veal producers and a small contribution to the agricultural budget. The amount of net transfer declined for Greece and Denmark, though it remained positive – for Greece, largely because of direct payments and a low budgetary contribution, for Denmark, because of positive trade transfers.

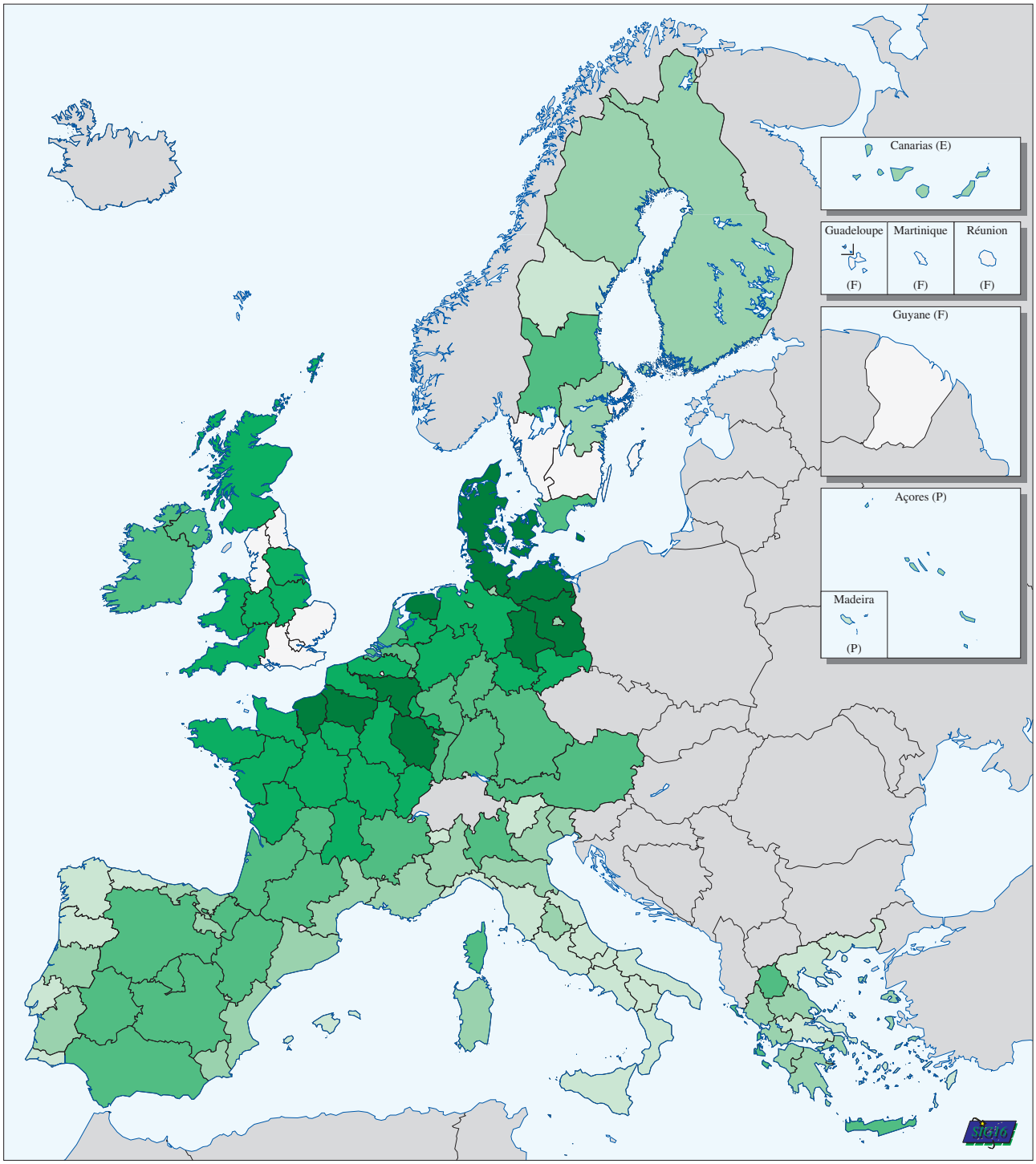
The remaining 10 Member States are net contributors to the CAP. Portugal is the only cohesion country for which net transfers were negative in 1998 as well as in 1993, the result of a low level of direct payments received and of a high level of protection against imports. Except for the Netherlands, which receives a low level of direct payments, the net contribution of all these countries declined between 1993 and 1998.

Contribution of agricultural price and market support to regional cohesion

Regions play an increasingly important role in the operation of the CAP, even if this differs markedly between Member States. In general, regions are responsible, on the one hand, for measures relating to rural land use (environmental protection, agritourism and infrastructure, for example) and, on the other, for providing support for specific agricultural sub-sectors. In this regard, differences between Member States are large: While Italian regions manage around 70% of the agricultural budget in Italy, agricultural measures undertaken by French departments (which are much larger than those undertaken by regions) account for only around 2% of the budget in France.

The effect of the 1992 reform

Producers of cereals, oil seed and meat have benefited from the direct payments introduced under the 1992 reform. This system provided compensation for the loss resulting from the alignment of European to world prices and, *ipso facto*, prevented income from agriculture falling in a number of regions and even led to an increase in some cases. The regions affected most by the new system were the cereal-producing areas of France (Centre, Poitou-Charentes), Germany (Bayern), Spain (Castilla y León, Castilla-la Mancha) and Portugal (Alentejo) as well as the



14 CAP total support per AWU, 1995-1996

EUR/AWU (1985 constant prices)

- < 3000
- 3000 - 5000
- 5000 - 10000
- 10000 - 15000
- ≥ 15000
- no data

CAP direct payments plus other transfers
B, D, NL, UK : NUTS1
IRL, A, FIN : NUTS0

Source: Eurostat - De Rose

Note: AWU = annual work unit

0 100 500 km

livestock areas of Ireland, the UK (Scotland, Wales, South West), France (Basse-Normandie) and Germany (Bayern). The result was an increased level of support in terms of the amount of aid in relation to agricultural employment (Map 14).

Production aids are also used for other products, such as olive oil, so providing support to many producers in the Mediterranean regions, and cotton, produced mainly in Greece. There have, in addition, been improvements, this time due to market forces, in wine-growing regions as well as in those producing fruit and vegetables: La Rioja and Andalucia in Spain, Puglia in Italy, Aquitaine in France as well as many regions in the Netherlands and Baden-Württemberg in Germany. In general, Mediterranean products have proved to be relatively competitive on world markets and their share in total agricultural output has increased, due partly to the modernisation of distribution systems in a number of coastal regions.

Total transfers to agriculture, including indirect as well as direct payments, have increased in relation to the number employed in all regions of the Union, the largest rise occurring in French regions (especially those producing cereals) and those in the new Länder in Germany. In terms of assistance relative to agricultural land area, regions in Greece receive the highest level of support in the Union.

Overall, the reform did not radically alter the distribution of support between European regions. In 1996, as in 1991-92, the regions where the level of support per person employed in agriculture is relatively low in relation to the gross value-added per person employed are located in the Netherlands, Portugal, Spain, Italy and Greece (ie they are situated on the bottom right-hand side of Graph A.38).

At the same time, the reduction in market price support most affected the regions with a high level of value-added per person employed, which led to a more equitable distribution of aid between regions. Moreover, a number of regions continued to receive much the same level of support following the reform, direct payments compensating for the reduction in market price support, while others experienced a reduction. The result is a weakening of the relationship between the level of aid to regions and agricultural performance. Wine-growing regions, for example, like those producing fruit and vegetables, succeeded in maintaining, or increasing, their agricultural income, despite benefiting only to a very limited extent from direct and indirect aid.

Although the 1992 reform led to a more equitable distribution of support across regions, it also became more dispersed. The distribution of transfers in relation to GDP per head (Graph A.39, which shows the cumulative proportion of transfers in relation to the population of regions ordered by GDP per head) shows that:

- the effect of the CAP is negative in the least prosperous regions, which account for around 20% of EU population (the graph showing that these receive less in transfers than their relative level of GDP per head);

- the regions benefiting most are those between the 2nd and 6th deciles in terms of GDP per head.

Contribution of agricultural price and market support to social cohesion

Over the past few years, a number of different models of agricultural production have developed, distinguished by their structure, methods and aims:

- a 'productive' model, geared towards international markets and increasingly concentrated in a few areas in the Union. Taking gross value-added per annual work unit as a measure of productivity, the highest values are found in Denmark, Champagne-Ardenne and Picardie in France and Sachsen-Anhalt in Germany;

- an 'adaptive' model, concentrated in particular regions and on particular products and targeted on local or national markets. This form of agriculture is based on traditional, local produce and is a response to an increasing demand for higher quality among consumers;

- a 'transition' model, which is subject to increasing constraints and permanent change, with farmers continuously changing their methods of production and what they produce in response to the development of large agricultural markets, increased competition and the ever greater pressure from agri-food chains;

- a 'marginalisation' model, characterised by structures of production which are increasingly unstable and precarious and which, if they are not capable of adapting, are set sooner or later to disappear. Taking farms below 4 ESU[2] as an indicator of precariousness, the regions in question include Centro in Portugal, Valle d'Aosta, Abruzzi, Basilicata and Molise in Italy and Galicia in Spain.

This typology of models is confirmed by an analysis of the average economic size of agricultural holdings in 1997 and the change between 1993 and 1997 for the 20 regions with the lowest and the highest levels (see Table A.27). There is a marked distinction between the southern and the northern regions. The 20 regions with the smallest size of holding are all situated in Greece, Spain, Italy and Portugal, Moreover, the average economic size of agricultural holdings declined over the 4-year period by 2.2%, while it increased in the top 20 regions, all located in the north, by 24.6%. Furthermore, employment in agriculture tends to be higher in the regions with small holdings, such as in Crete, where almost 38% of employment was in agriculture in 1997, where the average size of holdings was only 4.7 ESU and where this declined by 10% over the period.

Although the 1992 reform reduced expenditure on market support in favour of direct payments, the distribution of support in relation to farm size remains inequitable, since support is still fixed on a 'per hectare' basis (which means that support increases with economic size). Before the reform, the system of support favoured farms with a certain level of production and, *de facto*, of a relatively large size (of 16 ESU and over). Although direct payments have become more important since the reform, the main beneficiaries remain the large holdings (over 40 ESU). The inequality of the distribution of support is seen even more acutely if account is taken of the fact that 10% of holdings in the EU account for two-thirds of the total standard gross margin and half account for 95%. The CAP, therefore, continues to support the development of large specialised units at the expense of small and medium-sized farms, which play a major social and economic role in a number of regions (Graph 19).

The enlargement perspective

The inclusion of the 10 Central European candidate countries in the Union (ie leaving aside Cyprus and Malta) would lead to:

- an increase of 2.4 times in the number employed in agriculture (from 6.9 million in 1998 to 16.6 million);

Table 7 Value-added and employment in agriculture in the Union and the CECs

	Value-added		Employment			Value-added		Employment	
	EUR mn	*%*	*000s*	*%*		*EUR mn*	*%*	*000s*	*%*
Belgium	3233	1.4	95	2.4	Bulgaria	2308	21.1	770	24.4
Denmark	4449	2.9	90	3.3	Cyprus	356	4.4	30	10.2
Germany	23724	1.2	1034	2.9	Estonia	294	6.3	54	8.8
Greece	8813	8.1	704	17.8	Hungary	2323	5.5	263	7.0
Spain	21897	4.2	1020	7.4	Latvia	235	4.3	172	17.2
France	39876	3.1	968	4.3	Lithuania	986	10.3	345	21.4
Ireland	4105	5.4	136	8.5	Malta	85	2.7	:	:
Italy	32167	3.0	1118	5.4	Poland	6735	4.8	2704	18.1
Luxembourg	117	0.7	3	1.9	Slovak Republic	841	4.6	179	8.1
Netherlands	10742	3.1	232	3.0	Czech Republic	2277	4.6	250	5.3
Austria	4354	2.3	229	6.2	Romania	6405	17.4	4851	44.0
Portugal	3765	3.9	611	12.6	Slovenia	715	4.1	96	10.8
Finland	4289	3.7	148	6.4					
Sweden	4538	2.1	121	3.0					
UK	15566	1.2	421	1.6	CEC 12 / 11	23559	6.8	9715	22.0
EU15	181635	2.4	6930	4.5	EU 27 / 26	205194	2.6	16645	8.4

Source: National Accounts; Labour Force Survey; National Statistical Institutes; calculations DG REGIO

- an increase of 12.7% in the gross value-added of the agricultural sector (in Euros);

- an increase of 5.4% in total agricultural imports (intra- plus extra-Community) and of 4.9% in exports.

With almost 10 million people employed, agriculture in the Central European countries is a considerably larger source of jobs than in the EU. Productivity, measured in terms of valued-added per person employed, is, however, only 9% of the level in the Union. Nevertheless, in relative terms, the contribution of agriculture to GDP, as to employment, is much larger in the CECs – particularly in Romania and Bulgaria – than in the EU (Table 7).

Although data from current Agricultural Economic Accounts in the CECs make accurate comparisons difficult, it is possible to identify broad differences between the candidate countries and the Union.

- In Poland and Romania, very low labour productivity reflects the large proportion of micro and small farms in total production combined with a relatively high density of labour per hectare. These types of structure, inherited from the pre-transition period in Poland and to a lesser extent Romania, reflect the presence of considerable labour intensive and semi-subsistence agriculture. Bulgaria is perhaps more polarised between small-scale labour-intensive farming and large-scale extensive cereals production.

- In Hungary, the Czech Republic and Slovakia, labour productivity is higher reflecting the importance of large structures and the development towards more market oriented farms. In Slovenia levels of value-added are significantly increased by market price support policies.

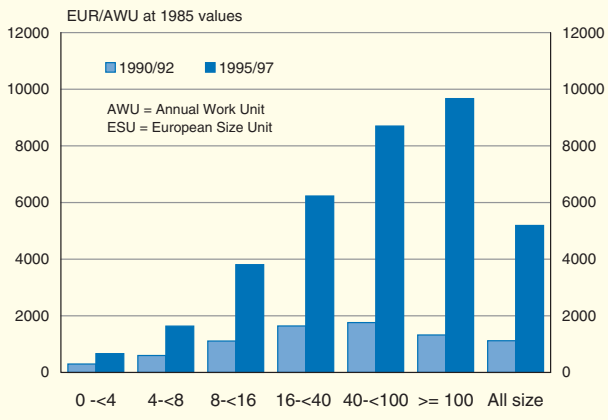
- The Baltic States lies somewhere between the two groups. Here, recent low levels of productivity reflect the significant recession and restructuring which have occured in recent years.

In all cases, low productivity per hectare and per labour unit correspond to a high labour/capital ratio in comparison with the European Union and a comparatively low level of input use (Graph 20). This reflects relative factor costs in the CECs as well as barriers to investment. In the Czech Republic, Poland and Hungary, capital per employee is no more than a third of that in France, if commercial holdings alone are taken into account. This falls substantially, particularly in Poland, if smaller holdings are included. In these countries, national statistics suggest that there is perhaps one tractor for every 20 agricultural workers.

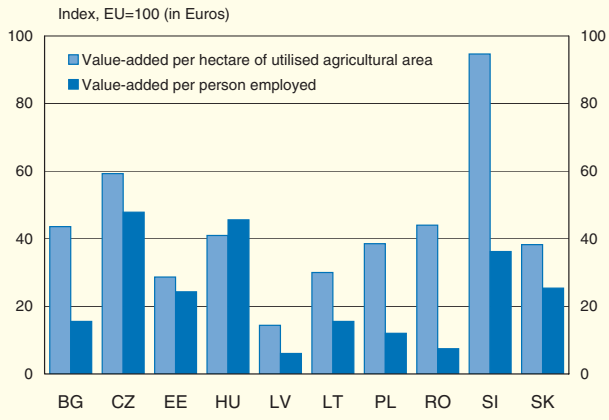
Structures and subsistence farming

A common feature of countries where, before 1989, agriculture was largely collective is the gradual closing of the gap between, on the one hand, large collective or state-owned holdings and, on the other, very small private units (like those in mountain areas in Romania). The average size of remaining state-run holdings, including private cooperatives, is declining

19 Production subsidies per AWU by group of farms classified by ESU, 1990-92 and 1995-97



20 Value-added in agriculture in Central European countries, 1998



considerably, while that of private holdings is gradually increasing.

In Poland and Slovenia, where the private sector was already important before the transition in 1989, structural change is less pronounced. In Poland, the size of private holdings is only increasing slightly as the land from state-owned farms is privatised, though, in general, their small size represents a handicap in the longer term (see Table A.28).

Increasingly, this distinction between small private holdings and large collective farms is being replaced by a dualism between market oriented competitive farms and a semi-subsistence sector. This latter is a factor contributing to low levels of productivity, lack of market orientation and resistance to structural change in a number of candidate countries. Although no standard definition of subsistence farming exists, it is generally associated with small holding size, family agricultural work as a part-time or supporting activity, high levels of on-farm consumption as well as an important role in extended family structures.

Subsistence farming is not a new phenomenon in the CECs. Household plots played an important role in the pre-transition period. However, its scale has increased since transition, reflecting a response to economic and social adjustment. The importance of subsistence farming varies markedly between countries remaining significant in Romania, Bulgaria and Poland. In contrast, it plays only a small role in Hungary, the Czech Republic and Lithuania.

Subsistence farming defined in these terms reflects, therefore, both historical factors but equally a rational response to high levels of rural unemployment, low incomes and the nature of social security systems. For example, more than a million Polish farmers receive an agricultural pension, absorbing the major part of the agricultural budget. Such social security transfers play an important part in agricultural household income and could easily account for more than half of total agricultural household income in some countries. Subsistence farming can, therefore, play an important role in overall family welfare and, equally, in absorbing labour where alternative sources of employment are scarce. However, rural poverty remains a considerable problem in the CECs (see Box in Part I, Social cohesion).

Market support policies

In general, data from the OECD suggest that current market support policies in the CECs, with the exception of Slovenia, and to a lesser extent Poland, have had little effect on agricultural value-added and sectoral income. It should be emphasised that due to the acknowledged limitations of these data, conclusions should be seen as indicative of broad trends. On average, the CECs have moved from a position of negative market support over the past years to a situation close to neutrality. This, however, may hide implicit market support due to significant differences in quality between domestic production and world markets, particularly in the livestock sector. On the other hand, it also reflects price competitiveness and (in some cases) policy choices to maintain low prices, particularly in the cereals sector. In this respect, cereals and oilseed play an important role in final agricultural output, particularly for large producers such as Hungary and Romania. Macroeconomic restructuring and exchange rates trend play an equally important role, particularly in Bulgaria and Romania. The picture in most countries is, therefore, of low levels of support gradually increasing over time, with the exception of Slovenia which has levels of support similar to those in the Union.

When the structure of market price support is examined by hectare or livestock unit (see Graph A.40), levels of support for oilseed and cereals are generally low or negative in the candidate countriess with the notable exception of wheat in Poland. Despite of considerable policy intervention, price support in the livestock sector has not raised domestic prices significantly above world prices, although there is an implicit transfer due to quality differences particularly for beef and pork. The only areas of major ,support are for sugar and milk. Here, as in the EU, support for sugar is relatively concentrated. It is notable that the application of EU prices to the CECs would increase levels of market price support without raising them to EU levels. This reflects lower yields per hectare and per livestock unit.

The effect of current market support policy in the candidate countries on national cohesion and farm incomes in most countries is relatively small given the low level of transfers from consumers to producers, with the exception of milk and, perhaps, sugar. However, there are significant transfers in Slovenia and in some sectors in other countries such as Poland. As

prices move towards EU levels and production increases, these transfers will also increase, with corresponding effects on income, although it is not unclear how this will affect the semi-subsistence sector.

Prospects

Enlargement towards to Central Europe gives rise to a number of challenges as regards national and regional disparities in the Union. The overall impact on EU15 growth and employment is likely to be small. But achieving productivity gains in the CECs and dealing with the consequences of such gains in rural areas, particularly from labour adjustment, is very important. Agricultural and rural development policies are particularly significant here, given the important role of agriculture in many areas.

Enlargement will clearly widen disparities in the EU between rural areas and between these and urban areas. Price convergence between the CECs and the EU15 will increase transfers from consumers to producers in the CECs, but these positive effects on farming income may be offset by a range of factors undermining the competitiveness of CEC agriculture (eg real exchange rate appreciation). It should be noted, however, that these processes reflect broader economic adjustment and are already underway in the pre-accession period.

Many CECs are characterised by a dualistic structure of farms. For the more market oriented farms, the key challenge would appear to be the need for better functioning factor markets. On the other hand, the small size of holdings farm structures and high levels of employment in agriculture pose particular challenges for improving the efficiency of the sector, particularly since the social costs of so doing appear to be high.

In a number of countries, and particularly in Romania and Bulgaria, where employment in agriculture has increased in both absolute and relative terms, there has been migration from urban to rural areas as economic conditions have worsened. Agriculture has, therefore, been important in absorbing the shock and has enabled essential needs to be met. The small size of farms, low labour productivity and incomes, lack of alternative employment and reliance on subsistence farming can be contributory causes of rural poverty. Nevertheless, subsistence farming can also play an important role in maintaining agricultural and rural household income and may, in some cases, complement social security or, indeed, substitute for labour market measures. At the same time, however, subsistence farming has created a problem of under-employment, which remains to be tackled in the future by attempting to achieve a more balanced and diversified development of the areas in question. In this respect, the creation of alternative sources of employment and functioning labour markets would appear as important as improved general skill levels.

1 For preliminary estimates, see 'First Report on Economic and Social Cohesion'.

2 Economic size is conventionally expressed in terms of the European Size Unit (ESU), corresponding to a standard gross margin (SGM) – the difference between gross agricultural output and the costs associated with that output – of EUR 1200. The Farm Accountancy Data Network considers 'very small' holdings to be those below 4 ESU.

II.5 Employment, human resource development and cohesion

The European Employment Strategy (EES) was launched only a few years ago at the end of 1997 and is built on several processes. The Union's role is a co-ordinating one, the Member States remaining responsible for the design and delivery of employment policy.

A new operational framework, particularly in the Luxembourg process ...

The Luxembourg process embodies a number of elements which are important for its success:

- First, it is founded on commonly defined objectives, which are based on shared values among the Member States and cover issues which are felt to be of common concern for employment policy.

- These objectives are transparent and, therefore, open to public scrutiny and criticism.

- A number of appropriate ways to measure progress towards the desired outcomes are defined either in terms of quantitative or qualitative indicators.

- As the focus is on outcomes at the EU level, the definition of the means and conditions under which programmes and policies are implemented is left to individual Member States, which are responsible for their own employment policy.

- Peer pressure through annual examination and comparative review is used to steer the course of policy and enhance the effectiveness of action.

This method establishes a balance between EU Union level coordination in the definition of common objectives and outcomes and Member State responsibilities in deciding the detailed content of policy.

... which represents a new method of coordination

The European Employment Strategy is based on a number of key principles, which distinguishes the 'Luxembourg' open method of coordination from previous attempts to develop a credible European approach to employment policy. These principles are:

- Subsidiarity. The definition of the means and conditions under which programmes and policies are implemented is left to individual Member States.

- Convergence. Commonly agreed employment objectives are pursued through concerted action, where each Member State contributes to raising the EU average performance. This principle has been made more concrete still by the Lisbon European Council in March 2000, where full employment was adopted as an overriding goal of the Union, together with the objectives of raising the overall employment rate in the EU from 62% to 70% by 2010 and the employment rate of women from 52½% to over 60%.

- Management by objectives.

- Country monitoring.

- An integrated approach. The Luxembourg process does not involve only Ministries of Labour and Employment, but commits national

governments as a whole as well as a wide range of other interested parties.

Objectives

The objectives of the Luxembourg process are given operational meaning in the Employment Guidelines' four pillars: employability (enhancing the chances of individuals to remain in, enter or re-enter the labour market, providing early assistance to the unemployed, preparing young people for the world of work, making the tax-benefit and training systems more employment friendly), entrepreneurship (developing a culture of enterprise, making it easier to start and run businesses), adaptability (helping employees and enterprises to be more flexible, modernising the legal and organisational framework of employment), equal opportunities (developing pro-active policies which will enable more women to take up employment, at all levels and in all sectors, better reconcile work and family life and facilitate a return to work after a period of absence).

The force of Recommendations

The instrument of Recommendations – first used for 2000 – has demonstrated its value in focusing Member State efforts on key challenges. Most Member States have taken action to respond to the Recommendations addressed to them. The 52 Recommendations adopted for 2000 referred to youth unemployment, long-term unemployment, disincentives to employment embodied in the tax or benefit systems, the employment potential of the service sector, social partnership, gender gaps and statistical systems. Most of the Recommendations have been kept (entirely or in amended form), because their implementation exceeds the timeframe of a single year; 8 Recommendations were dropped because sufficient progress had been made – as regards services (Belgium, Germany, Ireland, Italy), the administrative burden on companies (Spain), statistical systems (Germany, UK) and social partnership (France). New Recommendations were included, putting additional emphasis on two new priority issues, which deserve increasing policy attention: achieving a more balanced policy-mix across the four pillars through a more comprehensive approach and lifelong learning. For 2001, the Commission proposes to address the Recommendations to Member States (see Table A.29 in Annex).

A learning strategy, reviewing itself ...

It is noteworthy that the Luxembourg process itself is subject to critical assessment. In 2000, a 'Mid-term Review' was carried out in order to identify the improvements it initiated and the weaker points where further action could be needed. The review identified some important changes and successes (in particular, it brought the employment challenge and the employment objectives to the forefront of European and national debate, linked economic and social policy more closely together, created an integrated framework for structural reform, led to increased involvement of a wide range of actors and to greater transparency of employment policies and increased political accountability), while enabling the Guidelines to be refocused on the main Lisbon objectives. But it also identified a number of continuing challenges.

Despite overall improvement, regional differences in labour market performance remain substantial and have increased further in some Member States.

The regional pattern of employment has changed little since 1980, and there appears to be little evidence of a more balanced distribution of net job creation between regions.

The Employment Guidelines took account of this situation from the outset and drew attention to the role of local and regional authorities in employment policy. As noted in the Joint Employment Report 2000, the importance of action at local and regional level is increasingly recognised by Member States, but more needs to be done to increase cooperation between the different levels of government to develop a comprehensive regional and local employment strategy; regional and local authorities and other local actors need to become more involved in the design and implementation of the relevant guidelines, so adding a local dimension to the EES. This point is reflected in the proposed Guideline 12.[1]

Labour market bottlenecks are emerging in a number of Member States. These call for targeted action to improve employability, both in general and of people at risk of social exclusion, in particular. Education systems and continuing training are of crucial importance.

Despite improvements in education systems (often supported in Objective 1 regions by the Structural Funds), a number of young people still leave education too early with too few qualifications. This can lead to difficulties adapting to technological change and to social exclusion. The cohesion countries face the greatest difficulties in this respect. Measures to combat early school leaving feature in all of the National Action Plans (NAPs) produced for 2000, except that of Spain. Most Member States have broadened support for young people with learning difficulties. Many have introduced specific measures aimed at target groups (people with disabilities, ethnic minorities, disadvantaged young people) and at areas where drop-out rates are high. For example, France, the Netherlands, Portugal, Sweden, and the UK have established special educational action zones designed to keep young people in education and training , to increase rates of achievement and tackle social exclusion.

The clear benefits from the Information Society represent a threat for those excluded from the IT revolution. The Lisbon Summit highlighted the major efforts needed to ensure that all share in these benefits. There are a number of examples of efforts in Member States (Greece, Portugal) to provide education and training for people with learning difficulties through ICT and to develop special support to improve ICT skills for unskilled workers and for those in specific sectors. This should promote social inclusion in the Member States concerned. Action, however, is uneven across the Union and more needs to be done.

All the NAPs put employment policies for people with disabilities firmly on the policy agenda. In many Member States, there has been a shift in emphasis away from programmes targeted at those with disabilities towards a more mainstream approach, which encourages them to participate in general active labour market programmes. However, there are specific measures in a number of Member States. Three of the cohesion countries (Portugal, Greece and Spain) have set targets for the participation of people with disabilities in training and other employability measures.

There is also some evidence from the NAPs for 2000 to suggest that Member States are taking greater account of the needs of ethnic minorities in the development of employment policy. Nevertheless, there are differences between Member States both in the interpretation of what is meant by ethnic minorities and in the policy-mix between promoting direct integration in the labour market and measures to fight discrimination. Most tend to focus on integration. However, a few Member States adopt a mix of the two (Denmark, Sweden, UK). In some Member States (France and Portugal), there has been a public debate on discrimination at work, reflecting consultation undertaken at the EU level by the Commission on the implementation of Article 13 of the Treaty.

The horizontal objective of gender mainstreaming has been only partly implemented and policies still tend to be presented as gender-neutral.

Over the five years to 1999, almost two-thirds of the 6.8 million net additional jobs in the EU were taken by women. However, over 70% of these jobs were part-time. Other labour market indicators suggest that there is still some way to go to achieve greater equality of opportunity in the labour market.

The NAPs confirm that Member States have improved their implementation of gender mainstreaming. However, although there has been some progress in improving the gender-impact analysis of policy initiatives (particularly in Finland and Ireland), many countries appear to lack plans or measures in this regard.

It has not been easy in all cases to coordinate the Luxembourg process with the budget process, which translates the objectives, commitments and measures envisaged into (possibly multi-annual) budgetary allocations.

Similarly, there remains the challenge of integrating, at the national level, the contribution of other instruments, such as the European Structural Funds (and in particular, the European Social Fund), into the implementation of the NAPs.

The translation of the objectives within the adaptability pillar into action is lagging behind. Much of the action under this pillar is the responsibility of the social partners, who have a major stake in contributing to more and better jobs and whose cooperation is needed for implementing measures in the workplace. Not all Member States make it easy for the social partners to be involved, and many NAPs, through inadequate reporting, fail to reflect activity and initiatives actually taking place. Nonetheless, the onus is on the

social partners to become more active, and more transparently so, in this regard. In order to encourage progress, the Employment Guidelines 2001 invite the social partners to create 'a process within the process', ie to be responsible for the development of, and reporting on, actions within their remit which are consistent with the overall objectives in the Employment Guidelines.

... adapting to new circumstances ...

The Commission proposal for the Employment Guidelines 2001 has also been influenced by the Lisbon Summit conclusions. Overriding strategic priorities have been included in an introductory section. The new emphasis put on full employment, the role of the social partners, lifelong learning, educational attainment and social inclusion have also been taken into account. Some of the Guidelines have been rationalised (eg lifelong learning is now addressed in one instead of several Guidelines) or clarified (eg the potential role of local and regional authorities in employment policy) and more concrete targets have been included. New issues, such as labour market bottlenecks and undeclared work, have been addressed.

... and preparing for the future

The Luxembourg process is treaty based (Article 128) and as such there is no time limit defined. In 2002, the overall results of the strategy and its objectives will be reviewed and an overall impact – evaluation will be carried out to enable policy makers to consider strategic options for a revision of the Guidelines. This evaluation process will start soon (at Member State and EU level) and should provide the necessary information for the political decisions needed in 2002. Two separate strands need to be distinguished in the exercise:

- policy evaluation, focusing on those areas where the Employment Guidelines can be expected to have influenced policy choices at national level as well as the effect of those choices;

- macro-evaluation, assessing the progress made towards achieving the key objectives of the EES – combating unemployment, increasing employment rates, improving the adaptability of the labour force and the responsiveness of labour markets, reducing gender gaps and developing lifelong learning.

1 'All actors at the regional and local levels must be mobilised to implement the European Employment Strategy ..Member States will encourage local and regional authorities to develop strategies for employment in order to exploit fully the possibilities offered by job creation at local level.'

II.6 Environment policy

Social and economic objectives, including a strengthening of cohesion, are not in conflict with environmental aims but are complementary. There is no inherent contradiction between the pursuit, on the one hand, of higher economic growth in the weakest regions and Member States and, on the other, improvements in the environment. Indeed, environmental quality is a key element of quality of life in any region. Environmental improvements can, accordingly, increase the attractiveness of a region for outside investors and its economic potential – for the growth of tourism, for example. In addition, weaker members of society, notably those in inner city areas, or lagging regions, in particular, stand to benefit disproportionately from improvements. Growth in the lagging regions, moreover, will enhance their willingness and ability to pay for a cleaner environment.

However, there is an interaction between the two policies, and this interaction has to be managed to ensure there are gains on both fronts.[1] '*Improved environmental quality ... will have to come mostly from changes in economic activity and socio-economic policies*'[2] and it is important to assess these changes, in terms not just of environmental benefits but their effects on cohesion.

The starting point for analysing the interaction is that environmental policy, by necessitating additional investment to reach higher standards or by imposing new taxes on environmentally damaging activities, seems to increase costs. In reality, however, it makes the costs of environmental damage more visible. Any costs, moreover, need to be weighed against the benefits noted above, even if these tend to be more difficult to quantify. The costs should not be overstated; estimates tend to show that they are very small relative to overall costs of production, especially when implementation is *via* market-based instruments. For example, one of the most ambitious parts of environmental policy in the EU is to achieve the Kyoto targets for reducing emissions of greenhouse gases. Yet the estimated cost of this is around EUR 7.5 billion a year – only 0.09% of EU GDP[3] – which has to be set against the benefits of avoiding the damaging effects of accelerated climate change.

However, while, in overall terms, cost increases tend to be relatively small, they can often be concentrated in particular regions or sectors or on particular social groups. The fact that the long-term benefits of environmental protection outweigh the costs may not be true for everyone in society. Environmental measures can, therefore, have significant distributional implications.[4]

There are, therefore, three main questions to ask in analysing the cohesion impact of environmental policies:

- do the costs of implementation fall disproportionately on less prosperous Member States, regions or social groups?
- do the benefits, eg in terms of increased quality of life, accrue disproportionately to these?
- are there gains to employment?

In some cases, such as in respect of the pursuit of the Kyoto targets, it is difficult to identify or quantify significant differential effects. However, in two key areas of environmental policy, waste and water, differential effects can be identified.

European waste policy

The Fifth Environmental Action Programme 'Towards sustainability', reiterates the priorities for waste management in the following order of preference:[5]

1 Where possible, the generation of waste should be prevented

2 If this is not possible, it should be reused

3 Otherwise, it should be recycled

4 If not, waste should be sent for energy recovery

5 Only if none of the above are possible, should landfill be used as the last resort

According to a study for the Commission,[6] there are a number of elements which are relevant for cohesion.

First, the production of waste is less in the cohesion countries than in the EU as a whole, ranging from 90% of the average (Ireland) to only 65% (Greece). Accordingly, the potential implementation cost of waste policy is proportionately lower in cohesion countries although, as GDP per head in these countries continues to converge to the EU average, they may produce more waste.

Secondly, however, the Cohesion Countries lag behind in the treatment of waste.

This is true both for the most virtuous form of treatment, recycling (Portugal, in particular, recycles only 4% of total waste as opposed to an EU average of 9%) and for the worst form of disposal, landfill (93% of Greek waste ends here, as opposed to an EU average of 66%). Only in Spain is the disposal profile similar to that in the EU as a whole, and even here, this applies much less to the lagging regions

The cost of meeting the waste management targets is, therefore, likely to fall just as (or even more) heavily on these countries (except Spain) as it does on the EU as whole, despite their lower waste production. All of them, except Spain, have, accordingly, been given an extension until 2006 to meet the first set of targets. In addition, the Cohesion Fund is making a major contribution to costs – over EUR 200 million annually, covering up to 75% of costs (see 'Cohesion Fund investments in environment and waste treatment'), which means the costs falling on these countries will be much less than elsewhere.

Moreover, in terms of benefits, they are likely to see a relatively large reduction in landfill waste disposal and up to 46,000 new jobs created in managing such programmes (4,000 in Ireland, 9,000 in Portugal, 10,000 in Greece and 23,000 in Spain).

Waste in the CECs

The situation in the Central European candidate countries is similar to that in the cohesion countries. The production of municipal waste is low (typically 70% of the EU average), but growing fast (it is forecast to increase by 50% over the period 1995 to 2010). Moreover, the proportion disposed of in landfill sites is high (typically 80% or more). The problem is particularly serious in Poland, where almost 99% of waste is disposed of in landfill sites, which cover a total of 3020 hectares and include the dumping of 1000 tonnes a year of (incinerated) dangerous medical waste. This highlights a typical problem in many candidate countries that landfill sites often do not meet EU safety standards.

An additional problem in some countries is the waste liability inherited from past activities, both military and industrial. For example the production of shale oil in Estonia over the past 60 years has left spoil heaps over 100 metres high, which not only blight the landscape but contaminate the groundwater. The damage being caused by shale oil production represents a major challenge for policy given the implications of any reduction for regional development and energy supply.

Similar policy conclusions apply as for the cohesion countries. Despite producing less waste, candidate countries will need to spend as much, if not more, per head than the EU average in order to implement the *acquis*, in a context where incomes are much lower. The Cohesion Fund and ISPA (the pre-accession structural instrument) are likely to make a significant contribution to this. In terms of employment, the estimates for current Member States suggest that implementing the *acquis* could create up to 50,000 jobs in the CECs.

European water policies

Improvements in water quality are likely to require a large part of the EUR 260 billion estimated to be needed over a 20-year period for the EU15 to comply with the 10 directives on environment. There is, therefore, the potential for a significant effect on cohesion.

One feature of water management conditions this effect; the role of public authorities in this means, among other things, that historically polluters have often not paid for the damage they cause. As the 'polluter-pays principle' is applied more systematically, there is likely to be a marked redistribution of costs between both social groups and regions.

According to a study for the Commission,[7] there are, in particular, four elements of EU water legislation which could have effects on cohesion:

- the Water Framework Directive
- the Drinking Water Directive
- the Urban Waste Water Treatment Directive
- the Nitrate Directive

These are considered in turn below.

The Water Framework Directive

Adopted in 2000 and incorporating many previous directives, the Water Framework Directive improves the coordination of standards and shifts planning from administrative entities (such as municipalities) to 'natural' entities (such as those responsible for river basins). A key point for cohesion, however, is the requirement, in line with the polluter-pays principle, for increasing the extent to which the costs of water services are recovered from users.

At present, cost recovery is low, especially in the cohesion countries and especially as regards agricultural producers. Eliminating the cross-subsidy which now exists might have a negative effect on cohesion. Although the present pattern of cross-subsidy between households, industry and agriculture is complicated and varies from region to region, some general conclusions can be drawn.

Full-cost recovery from households would reduce their income by an estimated 1.7% in the cohesion countries as opposed to only 0.2% on average in other Member States. But this is a maximum estimate since the Directive only mandates an increase in cost recovery, not full cost recovery. The Cohesion Fund will cover a large part of the cost of investment in improving water supply main drainage. The shift in costs from taxpayers to householders will mean that certain user groups will pay more than they do at present in taxes, including those on low incomes, those with large families and those who are living in smaller or remote communities.

The recovery of the cost of supply from industry is generally higher than for households already and, in most Member States, costs are recovered in full. The cohesion countries, however, are exceptions and none of them impose the full cost of supply on industry connected to the network. A move to full cost recovery, therefore, is likely to increase the costs of water use by industry in these countries, especially in sectors which are heavy users, though not enough to affect their competitiveness significantly.

The recovery of supply costs is at present lowest for agricultural users, and very few countries impose the full cost on these, especially in respect of public irrigation schemes. As a result, the impact on rural areas is likely to be substantial, particularly where crops requiring a lot of water are grown. The use of the Cohesion Fund can reduce some of these adverse effects, but in deploying this, it is important to maintain incentives to increase the efficiency of water use.

The Drinking Water Directive

The main effect of the revision of the Drinking Water Directive is to reduce the permissible levels of lead. It is generally impossible to meet the new standard if water is delivered through lead pipes. These, however, are not common in the three least prosperous Member States, so the implementation costs are lower there than elsewhere.

Within Member States, on the other hand, lead pollution seems to be relatively high in less favoured regions. If improvements are paid for at national level, there is, therefore, a positive effect on regional cohesion. Moreover, there is also a positive effect on social cohesion, since health problems from lead disproportionately affect poorer people, partly because

they are more sensitive (old people and children are most at risk) or simply because they live in poor quality, older housing close to sources of lead pollution and seldom drink bottled or filtered water.

Meeting the requirements of the Drinking Water Directive is a major challenge for most of the candidate countries. In many – Estonia, Latvia, Lithuania, Romania, and Slovakia, in particular – over 20% of the population is not connected to drinking water supply systems. Significant investment is also required to improve the quality of drinking water – nearly 25% of people in Hungary, for example, are supplied with drinking water that does not meet Community standards. It is estimated that expenditure of between EUR 13 and 17 billion in the candidate countries is needed to meet these standards.

The Urban Waste Water Treatment Directive

This is by far the most expensive of the directives to implement, accounting for some EUR 150 billion of the estimated EUR 260 billion of total expenditure for the EU15 implied by the ten key environment directives. This directive also requires the highest level of investment in the candidate countries – of EUR 27-33 billion, according to national studies. The main effect on cohesion results from the substantial investment required in construction and maintenance of the waste water treatment system.

There are substantial differences in the estimated cost of implementation between Member States, reflecting their initial positions – some being much more advanced in the treatment of sewage – and the state of their natural environment. The first factor tends to push up the costs in the cohesion countries because the requirements are higher, while the second tends to reduce costs because of the relatively high assimilative capacity of the environment.

Since, however, around a quarter of the necessary investment in these countries is being financed by the Cohesion Fund (and the Structural Funds are making a similar contribution in Eastern Germany), the cost burden on cohesion countries will be limited. The large-scale investment required is likely to boost employment, particularly in construction, where the direct effect[8] is to add 2% to output, implying increased employment of up to 200,000. For most of the cohesion countries, however, there is likely to be substantial 'leakage' of such benefits abroad because of the small scale of their waste water and eco-industries, so much of the benefit is likely to accrue to firms in the more prosperous Member States.

In sum, the effect of expenditure on cohesion is likely to be positive, but it would be larger if eco-industries were to expand in the cohesion countries.

The Nitrate Directive

This directive was adopted in 1991, but is only now being implemented, illustrating the often long delay involved in water legislation. It lays down standards for the use of nitrogen in farming and, therefore, has clear implications for the agricultural sector and for rural communities.

The key point is that there are various forms of nitrogen put into the soil, through chemical fertilisers, animal manure and natural deposition, which comes out in crops and livestock, but it also leaks into water bodies or is emitted into the atmosphere. Problems arise when the loading of nitrogen exceeds the 'absorptive capacity.'

The Nitrate Directive affects cohesion in at least two major ways. First, the imposition of application standards, notably for nitrogen from animal manure, affects livestock producers, particularly high-intensity ones. In Ireland and Greece, where nitrogen is close to the EU average, the increased cost implied by the directive is likely to be modest. In Spain and Portugal, where farming is less intensive, the effects could even be positive, with anecdotal evidence of such activities as pig farming being transferred there from the most intensive-producing countries, like the Netherlands.

At the same time, there is evidence that the codes of good agricultural practice which are part of the directive can lead to substantial cost savings through better nitrogen management. Although the efficiency of nitrogen use could be improved throughout the EU, the largest potential gains appear to be in the Mediterranean, where there are wide variations in nitrogen use between farms even of similar types.

Overall policy effects

In sum, environmental legislation is on balance more likely to have positive than negative effects on

regional cohesion. The same, however, may not be the case for social cohesion, which might, therefore, justify accompanying measures being taken:

- at the national level, the cohesion countries are likely to share significantly in the benefits of environmental improvements (including the quality of life which might attract business investment) and, though the costs of implementing legislation might in a number of cases be higher than elsewhere, these will be met to a large extent by the Cohesion Fund;

- at the regional level, some less prosperous areas benefit most from environmental improvements, for example those in inner cities from wastewater treatment, and often have the cost of these paid by central government or the Cohesion Fund;

- at sectoral level, there will be cost increases for some sectors, though in most cases limited in relation to production costs. In a few cases, these will fall disproportionately on the less prosperous regions, rural areas being a notable example. These will bear the cost of the Nitrate directive, reflecting the true cost of the activities carried out there. The main effects, however, will be on agricultural areas in the more prosperous Member States and rural areas in Spain and Portugal are actually likely to benefit. A move towards full recovery of costs of water supply is likely to fall heavily on agricultural users and on households in remote communities, although again because they will start to pay the true cost of their activities;

- at the social level, costs in a number of cases may, initially at least, fall disproportionately on poorer people and those living in remote areas, the shift from taxpayers to households in respect of the Water Framework Directive being a notable instance.

Environmental protection measures, however, tend to benefit employment. The gains are significant, even if they are modest in relation to the overall need for jobs in the EU. For example:

- implementing EU waste legislation is likely to boost employment in the cohesion countries by up to 35,000 in the next five years and by 50,000 in applicant countries when they fully implement the *acquis*;

- the Urban and Waste Water Treatment Directive may create up to 200,000 jobs in construction and some in manufacturing, though to the extent that more prosperous regions tend to have bigger eco-industries, they are likely to gain most.

The above conclusions are somewhat tentative because of the limited data available at present. The intention is to rectify this in time for the next Cohesion Report.

1 European Commission (2000) "Bringing our needs and responsibilities together – integrating environmental issues with economic policy".
2 European Environmental Agency (1998) 'Europe's environment: the second assessment'.
3 Ecofys, National Technical University of Athens, AEA Technologies (2001 forthcoming), 'Economic evaluation of sector objectives for climate change'.
4 European Commission (2000) op. cit.
5 This hierarchy was already established in Directive 75/442/EEC on waste management, as amended by directive 91/156/EEC.
6 Club Español de los residuos (2000), 'The Impact of Community Environmental-Waste Policies on Economic and Social Cohesion'.
7 WRc (2000) 'The Impact of Community Environment-Water Policies on Economic and Social Cohesion'.
8 The final effect is likely to be less than this because of displacement effects.

II.7 Research and Development policy

The European Union is increasingly becoming a knowledge-based economy and society. The development of knowledge has a direct effect on competitiveness and employment, as well as on the way society functions in general.

Although the importance of knowledge was explicitly recognised at the European Summit in Lisbon in February 2000, research in Europe displays contrasting features. There are unquestionable strengths, but also evident weaknesses, as reflected in a trade deficit in high tech-products of over EUR 20 billion. This, in turn, reflects a number of underlying factors – a lower level of expenditure on R&D in the EU (1.8% of GDP) than in the US (2.8%) and Japan (2.9%), a less dynamic environment for innovation and a relatively fragmented research system (divided between 15 Member States).

Accordingly, the European Commission has concluded that a genuine 'European Research Area' needs to be created to improve the situation.[1]

The regional dimension of the European Research Area

According to the Commission, to establish a European Research Area, Member States need to consider policies on finance, human resources, the relationship between the public and private sectors, the creation of a common reference framework and values, and regional aspects. On the last issue, the Commission pointed to the importance of studying and putting in place the conditions for a 'real territorialisation' of research policies or adapting these 'to the geographical socio-economic context.'[2] It has, therefore, invited policy-makers at all levels to consider both the challenge posed to regions by the European Research Area and how they can contribute to its achievement.

Action at the regional level

Regional and local authorities already support research, technological development and innovation. It is estimated that the finance they provide amounts annually to almost 1½ times the total appropriation of the EU Framework Programme (EUR 4.5 billion compared with EUR 3 billion), over 90% of which is allocated on a regional basis.[3]

The authorities concerned are best placed to form the links with companies necessary for innovation and, therefore, the generation of economic wealth and employment. Creating networks of knowledge, clusters of companies, linking the scientific system to the needs of industry and services are all easier to organise at local and regional level.

Regional authorities are also well-placed to review best practice and to identify other regions with which they can fruitfully cooperate, which may be relatively distant ones, such as those which form the network of the 'four regional engines for growth', Baden Württemberg, the Rhone-Alps, Lombardia and Cataluña, or neighbouring areas, such as Brussels, Flanders, Kent, Wallonia and Nord-Pas-de-Calais. Such cooperation can help strengthen regional capacity for research and innovation by facilitating specialisation and complementary action and encouraging the rapid dissemination of knowledge.

By pursuing their own interests, therefore, regional authorities can increase the momentum towards the establishment of a European Research Area as well as ensuring its effectiveness and consistency.

The establishment of a European Research Area, however, is not confined to the most central and competitive regions. The instruments available – the Framework Programme, the Structural Funds and action at national and regional level – should be used together in a more coherent way, each according to its objectives, in order to enable all regions to participate fully in the area.

Networking and encouraging regional specialisation

The Commission Communication on Guidelines for EU Research Activities (2002-2006), adopted in October 2000, indicates how regions are intended to be involved in the European Research Area and sets out a number of Community objectives in five major areas: research activities, innovation and SMEs, infrastructure, human resources and the relationship between science, society and citizens.[4] It indicates three horizontal aspects which need to be taken into account in this regard: the overall coherence of European cooperation over science and technology, the international dimension of projects and the regional aspect. It also emphasises the importance of carrying out measures which encourage the full use of regional potential, through networking and exploiting geographical features or areas of economic specialisation.

Member States indicated their perception of the regional dimension of European Research Policy in the resolution of the Research Council in November:

'The Council of the European Union:... emphasises the importance of promoting the scientific and technological performance of all the regions of the Member States and participating countries, including the cross-border dimension, both within the European Research Area, in future framework programmes and in other relevant community initiatives.'

In this regard, the following aspects, which are considered in turn below, are of some importance:

- the learning effects of being part of European RTD consortia and networks;
- the mobility of researchers as a mechanism for the tacit exchange of knowledge;
- the policy learning effect of RTD activities.

Shared-cost RTD projects in the Fourth Framework Programme

The most important mechanism for EU funding of RTD is the 'shared-cost actions' in the Framework Programmes, which are project-based contracts between the Commission and the participants. Since the latter generally consist of organisations from a number of Member States, this enables knowledge and ideas to be shared and new know-how and technology to be developed jointly. The participation of representatives from cohesion countries and Objective 1 regions, therefore, is a way of improving the knowledge flow into these areas.

A detailed analysis of the regional impact of RTD policy has not been possible because data on the geographical distribution of expenditure from the Fourth Framework Programme (FP4) are not published. Some national data exist, but not for all countries and regions, and they are not based on official European statistics but on national surveys. The following analysis concentrates on numbers participating and other available indicators.

Relating participation figures to indicators of national RTD capability, such as the number of RTD personnel in a country, indicates that the cohesion countries are performing well, with Greece, Ireland and Portugal in leading positions. Closer examination, however, shows participation being heavily concentrated in the capital city areas. On the other hand, this concentration seems to be diminishing, with other regions in these countries accounting for a growing share of participation.

Participation and the number of projects from Objective 1 regions and cohesion countries increased over the second half of the 1990s. The number of projects with at least one partner from an Objective 1 region rose from 27% in 1994 to 41% in 1998. The total number of participations (ie the number of occurrences of participation in projects) from Objective 1 regions in FP4 has gone up from 1,705 in 1995 to 4,067 in 1998, although in relation to the overall number of participations, it declined slightly from 16% in 1995 to just over 15% in 1998. Examination of the evidence shows that there is a positive relationship between the extent to which organisations from a particular region

participated in the Framework Programme and RTD capability indicators, such as R&D expenditure and number of R&D personnel.

Encouragement of SMEs to participate in the Framework Programme was successful in increasing their share of total participation in FP4. However, a lack of official statistics on the type of participants at NUTS2I regional level means that it is not possible to verify whether this had a positive impact on Objective 1 regions. Nevertheless, the user survey, carried out as part of the Five-Year Assessment of European RTD programmes (1995-1999), suggests that in Ireland and Spain, representation of SMEs was higher than the EU average.

Since 1994, the Central European Countries (CECs), Russia and the Newly Independent States have been covered by the INCO-COPERNICUS programme. (INCO's contribution to the CECs countries in FP4 amounted to a total of ECU 78.3 million.) The need to strengthen links with the established RTD sector in the candidate countries is important for safeguarding and strengthening their scientific and technological potential and INCO has provided a sound foundation, support and guidance for them, though industry participation was low.

Participation in FP4 was important in increasing cooperation between EU Member States. In the 8 years, 1987 to 1995, there were 150,000 instances of cooperation between large companies, SMEs, universities and public or private research centres as a result of EU RTD activities. After 1995, under FP4, the number of instances of cooperation increased significantly, to 113,990 in 1996 and 78,300 in 1998, the variation reflecting the implementation cycle.

Such collaboration in RTD is one of the most direct ways in which knowledge, both tacit and codified, is transferred between organisations in different European countries. Accordingly, any increase in instances of cooperation involving organisations in the cohesion countries helps to reduce disparities across the EU in access to know-how. Over the course of the Fourth Framework Programme, cooperation links have varied from one year to the next without showing any distinct trend. Overall, links between the four cohesion countries and the other 11 Member States accounted on average for 22.2% of the total created annually, which is a good indication of the stimulative effect of the Framework Programme on disadvantaged regions (Table 8).

Table 8 Links created by FP4 between the cohesion countries and other EU Member States, 1995-1998

% total

	1995	1996	1997	1998
Greece	4.5	6.6	5.5	6.2
Spain	6.1	12.1	11.5	10.2
Ireland	2.2	3.3	2.8	3.2
Portugal	2.5	3.9	4.0	4.0

At the same time, it appears that organisations from cohesion countries participating in projects tend, in general, to gain more from this than those from elsewhere. The user survey of participants in FP4 indicates that participants from Greece, Spain and Portugal were more positive than average, or about the same as the average, as regards the impact on their scientific and technological standing, competitive position, productivity and employment. On the other hand, participants from Ireland were, in general, less satisfied than average with the impact on them, including in relation to their scientific and technological standing.

Mobility underpinning RTD capability

The European Commission Programme, 'Improving the human potential and the socio-economic knowledge base,' is aimed at increasing the mobility of researchers throughout the EU. According to several studies, the cohesion countries are well represented in programmes, such as the Training and Mobility of Researchers (TMR) under FP4, and have a relatively large proportion of their researchers receiving fellowships to work in 'centres of excellence' in other Member States. The UK is by far the most popular host country, followed by France, and the opportunity for young researchers to gain experience in research organisations best suited to developing their careers is an important aspect of policy.

In any assessment of the effect of mobility and cohesion, two considerations need to be taken into account:

- the possibility of increasing the mobility of researchers in the EU should not reinforce the 'brain drain' from less developed to core RTD regions. Given a general shortage of skills in many parts of

Europe and the increased competition for highly qualified researchers, this problem is likely to become more acute. The Return Grants scheme which helps researchers from less favoured regions return home is a response to this problem, although only some 6% of TMR fellows from less favoured regions are eligible for the scheme and make use of it. The effect on the movement of researchers between EU regions of programmes like TMR has, however, yet to be studied;

- studies of RTD expenditure from the Structural Funds indicate that there is not necessarily a link between an increase in RTD resources and personnel in Objective 1 regions and the innovative capacity of businesses situated there. The gap between public RTD activities and the needs of firms is particularly wide in these regions. Improving the international career prospects of young researchers is unlikely in itself to increase the 'absorptive capacity' of a region in the short-term.

As noted above, there is a positive association between the rate of participation in EU RTD projects and the RTD capacity of a region, as measured, for example, by the number of R&D personnel in the population. This suggests that a long-term strategy of investing in people will increase the capacity to collaborate in international research and technology projects. Efforts should, therefore, be made in cohesion countries and lagging regions to develop good career possibilities for researchers as a means of combating the brain drain.

Recent shifts in RTD policy

The Fifth Framework Programme (FP5), represents the continuation of a shift in focus from a policy oriented exclusively towards technology to one that includes innovation as a key concept. In essence, previous Framework Programmes prioritised areas of science and technology where Europe needed to strengthen its capability, whereas FP5 started from a statement of the most pressing societal problems which science and technology could help solve. Nevertheless, the Five-Year Assessment Panel that evaluated the first phase of FP5 concluded that more attention could be paid to social and economic aspects.

In principle, the way that the goals of FP5 are formulated allows more consideration to be given to the distribution of knowledge, to building 'absorption capacity' and not just to knowledge creation.

A horizontal programme for 'Promotion of Innovation and Encouragement of SME participation' has widened the target group to include not only high-tech performers, but also companies for which initial entry into the Framework Programme is difficult. The aim is to reduce obstacles to innovation for companies in less favoured regions and in more traditional sectors. At the same time, the provision of information to potential applicants, through Innovation Relay Centres, National Contact Points, more transparent Info Packs and so on, has been improved to reach a larger audience. While excellence in science and technology is still the main criterion for participation in FP5, there are parts of the programme which enable participants to achieve such a level over time.

The candidate countries in Central Europe have been granted full access to FP5, which should enable them to continue their links with the science and technology community in the EU and which should help overcome the technology gap that exists between them and the leading European countries.

Policy learning effects from EU RTD Initiatives

The EU has played a major role in disseminating good practice in RTD policy by helping to create a 'European Research, Technology, Development and Innovation Community,' where decision-makers, researchers, and other interested parties can communicate and work together, in both formal and informal ways, in official advisory committees, specific RTD programmes and policy exchange initiatives. By assisting in this, and through its influence on policy formulation and implementation, EU policy has indirectly contributed to closing the RTD and innovation gap between Member States and regions, and, by changing the culture, it has, in some respects, improved the policy planning process.

Moreover, initiatives such as, in particular, the Regional Technology Plans (RTP), the Regional Innovation Strategies (RIS), the Regional Innovation and Technology Transfer Strategies and Infrastructures (RITTS) and Trans-Regional Innovation Projects,

jointly set up by DG Regional Policy and DG Enterprise, have helped put innovation high on the policy agenda in over 100 regions. These projects have stimulated the establishment of ongoing and long-lasting processes in these regions and have, therefore, prepared the ground for further decentralisation of RTD policies to the regional level. Fine-tuning of the planning of RTD policy and the deployment of the Structural Funds for this purpose has been integral to the success.

Conclusion: progress in increasing the contribution of EU RTD policy to social and economic cohesion

EU RTD policy has increased its support for those involved in research and technology in the cohesion countries, less favoured regions and candidate countries. The absence of statistics on funding prevents quantification of the extent to which funding has been directed towards the latter. The increased number of projects with participation from Objective 1 regions, however, and the relatively favourable position of research fellows from cohesion countries in the European Human Mobility schemes point towards a positive contribution towards reducing regional disparities. Moreover, various measures have helped improve the effectiveness of policies relating to innovation in a number of disadvantaged regions.

The candidate countries have gained from the experience under the INCO programme of developing and managing RTD consortia and establishing partnerships with EU organisations as well as from being introduced to the art of writing EU RTD proposals. They are likely to gain further from full membership of FP5, although most countries lack the overall capability to participate extensively. Up until now, it has been mainly scientific institutes which have taken part in RTD projects and higher levels of business sector participation remains to be achieved. Positive effects on competitiveness and economic cohesion will, therefore, take longer to emerge than in the present Objective 1 regions.

Overall, EU RTD policy has adopted an approach oriented more towards innovation than technological excellence as such, better addressing the deficiencies of less favoured regions as a result. The regional dimension of RTD policy has come to be featured explicitly in the Initiative 'Towards a European Research Area'. An improvement in the interaction between the deployment of the Structural Funds and RTD policy is important to accelerating the 'catching up' of lagging regions.

The Structural Funds can provide the necessary support for firms and research institutes in the latter to participate on equal terms in future RTD programmes. Moreover, the conditions for a genuine 'territorialisation' of research policies (ie adapting these better to the geographical, social and economic context) need to be studied and put in place. This could open up new opportunities for policies at all levels to be better integrated into regional or interregional development programmes and for the synergies between them to be strengthened.

1 'Towards a European Research Area', COM(2000)6, 18 January 2000.

2 Such a study was launched in December 2000: 'Involving the regions in the European Research Area: refining the territorial conditions to optimise the creation and the transfer of knowledge in Europe' Price Waterhouse Coopers.

3 'Role of the local and regional authorities in the field of research, technological development and innovation', October 2000, Bannock Consulting Ltd.

4 'Making the European Research Area a reality: guidelines for European Union Research activities (2002-2006)' , COM(2000)612, 4 October 2000.

II.8 Transport policy

Transport Policy in the context of regional development

The Common Transport Policy has made a positive contribution to the success of the Union in the past decade. The provision of high quality transport services and infrastructure is an essential pre-requisite for ensuring that all regions share in the prosperity that the Single Market is creating. The opening up of markets has reduced prices and made distances shrink to the benefit of peripheral areas. It has also, however, led to a greater volume of traffic, which is now recognised as having negative consequences for congestion, dependency on oil and the environment.

Traffic growth has been greater in the cohesion countries than in the rest of the Union, due mainly to road passenger transport increasing at twice the rate elsewhere as car use catches up. The Community has invested substantially in infrastructure, where 'transport funds' (the Trans-European Network-TEN – transport budget line) have been used in conjunction with the Structural Funds, to give a major boost to the provision of infrastructure in the regions. The revision of the Common Transport Policy now underway seeks to improve the quality of transport as much as the services provided.

The Common Transport Policy through the 1990s

There were many achievements between 1992 and 2000. The supply of transport services, notably by road and air, increased significantly as prices fell in real terms. In road transport, outmoded restrictions were removed completely in 1998. The opening up of air transport markets increased the number of flights and lowered their cost. The main areas in which progress was made were:

- the interconnection of national networks, particularly through the development of the trans-European transport network, which has substantially improved links within the cohesion countries and between these and the Union. The completion of the high-speed rail network will improve links between many regions. In addition, the new ISPA fund has been set up to finance infrastructure projects in the candidate countries;

- the removal of bureaucratic controls and the technical harmonisation of transport equipment, which has reduced costs through economies of scale and removed technical barriers to international operations;

- 'interoperability' of rail networks, developed first for high-speed trains in 1996, which is about to be extended generally.

However, there have also been negative aspects. In particular, congestion in urban areas and along main international routes has increased dramatically over the past decade as road traffic has grown.

Sustainable transport

During the 1990s, the issue of sustainability has gained importance. Under Article 6 of the Treaty, environmental considerations have to be integrated into the definition and implementation of Community policies and activities to ensure development is sustainable. The concept of sustainability includes not only environmental concerns but also economic and social considerations. While environmental issues are

important they have to be balanced against competitiveness and social welfare.

Above all, transport should be safe. Road safety levels remain unacceptable, with 42,000 killed on the EU's roads every year. It is of particular concern that the situation in the cohesion countries is worse than elsewhere. While they have 17% of EU population, they account for 26% of fatal road accidents, suggesting that road improvements have not been matched by gains in safety. Maritime safety is also capable of improvement.

Progress has been made in environmental protection, notably in air quality. Community directives will reduce air pollution by 70% by 2010 thanks to technical improvements in fuels and vehicles, though some emissions remain a problem. Technical measures at European level are not a complete answer and local measures need to be taken to reduce urban emissions. New infrastructure can also help, as in the case of the Athens metro, which is expected to reduce car use substantially. Transport accounted for 28% of CO2 emissions in 1998. The EU Kyoto objective of reducing greenhouse gas emissions by 8% by 2008-2012 is far from being met and requires, among other changes, a shift from road to other modes of transport.

To achieve such a shift was one of the aims of the 1992 White Paper. Despite significant growth in short sea shipping, however, the potential of environmentally-friendly modes of freight transport, such as inland waterways and rail, has yet to be realised.

There is a clear need to update Community policy and to propose new measures and priorities to improve the overall efficiency of the transport system. The 1992 White Paper identified an inherent risk of the transport system becoming unbalanced and unsustainable and this in effect has happened. The revised policy has to tackle the challenge.

The trans-European transport network

There were major efforts in the 1990s to upgrade transport systems in the assisted regions and cohesion countries to levels more similar to those elsewhere in the EU. Since the mid-1990s, investment has increased and projects started in the early 1990s, such as the Madrid-Seville high-speed train or large sections of the Pathe motorway, have been completed.

In sea transport, the dominance of the northern ports has been challenged by large growth in container traffic in the Mediterranean, as a result of the new port of Gioia Tauro and investment in Algeciras and elsewhere.

Public private partnerships have brought stricter control of the risks taken and of the work carried out. Spata airport in Greece and the Vasco da Gama bridge in Portugal are good examples. The creation of special project authorities in the public sector has also served to improve accountability and efficiency.

II.9 Energy policy

Access to reasonably priced energy essential for cohesion

In addition to liberalisation of markets, the major aspect of EU policy is support for improvements in the distribution network, to increase the availability of supply in peripheral regions, in particular. EU finance has, therefore, contributed to the construction of high-tension electricity lines and of gas pipelines as part of the trans-European Networks, to increase the possibility of trade in energy between Member States and to provide access to natural gas to regions where this energy source does not exist. Accordingly, assistance has been provided under the REGEN and INTERREG II programmes to help improve infrastructure in Greece, Spain, Portugal and southern Italy in order to increase the chances of consumers there benefiting from a single market.

These measures are aimed at reducing regional disparities in access to energy and prices. The establishment of a single market in energy should further help in this respect, by stimulating more trade and competition, especially in peripheral regions where monopoly suppliers tend to be more prevalent, and so pushing down prices.

The reduction in prices brought about could benefit the cohesion countries disproportionately, since their energy use in relation to GDP, though it has fallen in recent years, remains above that in the rest of the Union. This is specifically the case for Greece and Portugal, where consumption relative to GDP is some 40% above the EU average, reflecting the composition of economic activity, though to a major extent inefficiencies in the use of energy. Nevertheless, the economic development of these countries in particular, involving, as it is likely to, increased industrialisation, will almost certainly necessitate increased energy consumption and, therefore, stands to be assisted by lower prices. At the same time, it is important for environmental reasons, in particular, that any reductions in price which occur do not lessen efforts to improve energy efficiency.

The scale of the effect of moving to a single energy market on the energy price differences, which at present exist across the Union is, however, hard to predict, especially since taxes of one kind or another (excise duties, value-added tax) represent a significant, but highly variable, component of the price of fuel in all countries.

The net reduction in energy prices from the establishment of a single market should benefit most consumers, including many poor households. There is no certainty, however, that prices will come down for everyone. In particular, those living in more remote communities, especially islands, where the cost of providing supply is relatively high, will not necessarily benefit from lower prices and might even see prices increase as these come to reflect more closely the true costs of provision. Increased competition, in itself, is unlikely to help much in this respect. Accordingly, the case for the incorporation of universal service provision guarantees in legislation, to ensure that everyone has access to affordable fuel, is a compelling one. Without such provision, there is a danger that a single market could lead to a widening of disparities in society and damage social cohesion.

Increasing security of supply

The EU's dependence on imports of energy is set to increase in future years as North Sea reserves begin to run down. Dependence on imports varies greatly between Member States, as do the measures

adopted (mainly regulatory ones) to minimise the risks involved in this. Such dependence does not have any direct implications for cohesion as such, so long as supplies are maintained and prices are relatively stable. However, the differential vulnerability to external shocks, such as an increase in world oil prices or the suspension of supply, is a potentially important source of disadvantage and, therefore, a possible factor in the decisions of businesses of where to locate, especially during periods of global instability.

In general, each Member State is responsible for safeguarding its own supplies (a common feature is that all member countries of the International Energy Agency continue to respect the norm of maintaining emergency stocks at a level equivalent to 90 days of net imports of petroleum). This may mean, to some extent, trading off lower prices for increased security and, therefore, overriding the market or imposing a fiscal and regulatory framework, which explicitly incorporates security considerations as well as those relating to the long-term availability of supply, within which the market can operate. Accordingly, the main long-term guarantee of security is to have access to multiple sources of supply, which can be achieved by diversifying both the sources of energy used and their origin.

For coal, supply is already extremely diversified. Apart from domestic mining (which is heavily subsidised), there are many exporting countries, in Central Europe, North and South America, South Africa and so on. For petroleum, although there is an efficient, well-established world market, there is a high degree of dependence on countries in the Middle East, and this is likely to increase further in future years. For natural gas, there are two major sources apart from the North Sea – Russia and North Africa.

Indeed, securing access to supplies is particularly strategic in respect of natural gas, which is likely to become an increasingly important source of energy in future years, not only in the generation of electricity – almost all investment in generating plants worldwide in recent years has been in gas-fired stations – but also as a possible replacement fuel for petrol in vehicles.

Accordingly, Structural Funds support for investment in natural gas networks in the cohesion countries is vital not just for increasing their diversity of supply, but also in preparing them for the future.

Environmental considerations

The pursuit of a path of economic development which is environmentally sustainable in the long-term is a central objective of policy and one which conditions the structural measures taken in the EU to assist regional convergence. This gives rise to a potential conflict between the pursuit of cost competitiveness – ie ensuring that production costs are not out of line with those elsewhere in the Union – and following a path best suited to achieving sustainable economic development. Accordingly, it suggests that there are mutual gains to be made, particularly in the long-term, from the adoption of a common policy on tackling the ecological damage caused by energy use, including in respect of fiscal measures.

At the same time, the EU continues to assist Member States in the pursuit of environmental objectives, through the ALTENER programme to encourage the development of renewable energy sources, SAVE, to promote more efficient use of energy, and PCCE, to support the co-generation of electricity. Moreover, the European programme for diversification and energy saving, which is aimed at stimulating international cooperation, is part of the 5th Framework Programme for science and technology.

II.10 Enterprise policy

Building on the Commission's existing policies for SMEs, innovation and industrial competitiveness, enterprise policy has recently undergone a process of refocusing and reformulation in response to the challenges posed by the knowledge-based economy and the need to adapt to global economic developments.

The starting-point for this new policy was set by the Lisbon Economic Council in March, 2000, which fixed the goal for the EU '*to become the most competitive and dynamic knowledge-driven economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion'* and identified enterprise and entrepreneurship as key to achieving this.

Enterprise policy in the Union is founded on three main aims,[1] each of which gives rise to a set of specific measures as described below:

- encouraging entrepreneurial activity: the measures under this head, which are especially important for lagging regions, are aimed, in particular, at improving the access of SMEs to finance, in cooperation with the European Investment Bank and the European Investment Fund. They also focus on developing a range of business support services, creating a regulatory and administrative environment favourable to enterprise development, offering entrepreneurial advice and encouraging the development of skills and motivation, which accordingly increase the attractiveness of regions to investors. These elements have been developed under the Multiannual Programme for Enterprise and Entrepreneurship (2001-2005);[2]

- creating an environment which is supportive to innovation and change: measures under this head seek, in particular, to encourage benchmarking and the exchange of good practice between countries, regions and businesses across the Union. They also help to remove obstacles to innovation and growth, provide support to innovation projects and promote the development of the service sector. They are being implemented through the recently adopted Communication 'Innovation in a knowledge-based economy' and the First Action Plan for Innovation in Europe;[3]

- to ensure that businesses have access to markets: measures under this head are being pursued through continued efforts to consolidate the Internal Market, ensuring access to global markets, the dissemination of voluntary standards and the promotion of e-commerce and new distribution networks. The reduction in the problems created by distance will, of course, be of particular importance to firms in peripheral regions.

The new enterprise policy has no specific spatial dimension but, nevertheless, addresses some of the most relevant obstacles to cohesion and regional development. Many of the new enterprises policy priorities have parallels in the regional policies implemented through the Structural Funds. In this respect, it can work in parallel with regional policy to create synergy to advance economic and social cohesion. In particular, it is aimed at removing the whole range of barriers to market entry, which are often particularly prevalent in lagging regions. In the short-term, at least, it is expected that their removal will release latent enterprise potential and so help to reduce regional disparities. In addition, the establishment of an enterprise and innovation 'scoreboard' will accelerate the diffusion of business best practice between both Member States and regions. While the precise impact of the new enterprise policy on economic and social cohesion (and, in particular, its effect on the development of the lagging regions) is

difficult to quantify, it can potentially play a significant role in reducing regional disparities.

In addition, the wide range of measures which are planned can have a positive effect on the ability of firms in lagging regions to compete in the global market place:

- measures such as benchmarking, peer reviews and joint action with Member States will enable policy makers and businesses across the EU to identify best practices and, in turn, to implement them. Programmes for encouraging the dissemination of innovation and best practice are likely to benefit lagging regions, in particular, and together with the development of business centres and technology parks, help them to exploit the opportunities offered in the new economy;

- policies designed specifically for SMEs, which are important for employment creation and regional development, to help them compete on a more equal footing with larger firms; the establishment of information and advice centres, such as the EuroInfo Centres (EICs) and the European Business and Innovation Centres, to offer support to enterprises across the EU. The EICs, by virtue of their close association with local businesses, their understanding of the local institutional environment and their links throughout the Union, play an important role in building relationships between firms in different regions and help them solve practical problems. In addition, the Europartenariat programme encourages SMEs in lagging regions to form business links with companies elsewhere, so enabling them to import technological and business know-how.

Many of the new enterprise policies have parallels in the regional policies implemented through the Structural Funds, and a core chapter of the Guidelines for Structural Funds programmes[4] was devoted to establishing priorities for enterprise support similar to the new enterprise policy.

SMEs

Enterprise policy is particularly focused on SMEs, which are an important part of the European economy. SMEs are the predominant type of firm in the EU and they are particularly important in lagging regions, where the small family business is prevalent, particularly in traditional sectors. The first multiannual programme for SMEs was therefore aimed at the development of SMEs in assisted regions.

In 1998, SMEs accounted for 99.8% of the 19.4 million non-primary sector private enterprises in the EU. Their average turnover was around EUR 500,000. In the two years, 1996 to 1998, the total number of SMEs in the EU is estimated to have increased by 4% and the number of people employed by 2% (from 73.2 million to 74.6 million), the same as in the economy as a whole.

Access to finance

Initiatives have also been undertaken to improve the availability of finance to SMEs through risk capital funds, the SME guarantee facility and small business loans for ICT projects. Most of these are implemented through the European Investment Funds. Since 1998, Spain, for example, has received 15% of the total amount allocated under the SME guarantee facility, which has gone to 672 firms. Other programmes, like the Joint European Venture (JEV), have also helped create new businesses in lagging regions, particularly in areas of new technology, almost 20% of the projects financed under the programme being implemented in Spain, Portugal and Greece.

Policy on tourism

Europe is the main tourist destination in the world. In a number of regions, particularly assisted ones in the south and in mountainous areas, tourism is a major source of employment and has a substantial effect on economic development. It is also an activity dominated by SMEs, some 6.5% of the total turnover of firms of this size being generated in this sector.

In the EU as a whole, it accounts for 5.5% of GDP and 6% of jobs. In many parts of the EU, the figures are much higher. In Spain, for example, tourism accounts for 10.5% of GDP and 9.5% of employment.

Tourism is likely to be a major source of job creation over the coming years, particularly in lagging and peripheral regions, and measures to support the sector could have an important effect on the development of these. According to the report of a High Level Group on Tourism and Employment set up by the Commission, there is an opportunity for creating around 3 million new jobs in tourism in the EU over the next decade, but certain conditions have to be met to realise this.

Regional aspects of Innovation Policy

Two action lines which foster the regional dimension of RTD and innovation policies have been developed under the Innovation programme: the Regional Innovation Measures and the network of Innovation Relay Centres.

The Regional Innovation Measures action line has supported three generations of projects since 1994. RITTS (Regional Innovation and Technology Transfer Strategies) projects were launched in 70 regions in parallel with Regional Innovation Strategies (RIS), under the former Article 10 of the ERDF, in 30 regions. The aim of the projects is to help regions develop a strategy which encourages firms, mainly SMEs, to be more technology-oriented and innovative. The approach is a new one, which moves away from the promotion of individual, mainly supply-led RTD measures, the concern being not so much to enlarge the scientific and technological capacity of regions *per se,* but to improve the institutional, RTD and innovation environment in which firms operate. The scheme is based on a bottom-up approach, starting from the needs of enterprises in regions in terms of innovation support, technologies and business advice, and is aimed at establishing long-lasting regional structures and processes. As such, it is designed to strengthen cooperation among all relevant parties (including encouraging public-private partnership), create consensus, identify strategic regional priorities and direct resources towards these.

The positive effects of the RITTS programme include:

- the development for the first time in many regions in cohesion countries of an innovation policy as a result of the scheme and the strengthening of the innovation system in others;
- the creation of an awareness of the importance of innovation to economic growth;
- the mobilisation of institutions, businesses and individuals at the regional level;
- the introduction of a much-needed move towards strategic thinking for innovation-oriented regional development;
- helping to develop a broader concept for innovation, different from mere technology transfer, and to put this higher on the policy agenda;
- a greater focus of public expenditure at regional level on business needs and an increase in public funding for innovation in many regions;
- providing the means and incentives to create a dialogue in fragmented regions (in a geographical, institutional and cultural sense);
- the creation of 'innovation communities' of different organisations and individuals in regions whose aim is to develop innovation as a driving force for regional growth;
- helping regions clarify the scope of infrastructure to support innovation and develop measures to rationalise and better define it, as well as to increase its visibility.

The Innovation Relay Centre network consists of 67 main nodes (and a large number of sub-nodes) in 30 European countries (including the EEA, CECs, Cyprus, Switzerland and Israel), organised on a regional basis. The main aim of the centres is to help local industries specify their new technology needs and identify which of their technologies are suitable for transfer to other regions or sectors.

Both networks focus specifically on the needs of less advanced regions, which are not only fully integrated into all the activities but also receive specific support in terms of advice, exchange of experience and access to good practice in other parts of Europe, especially in the most advanced areas.

1 Commission of the European Communities (2000) 'Towards Enterprise Europe'. Work Programme for Enterprise Policy 2000-2005. Enterprise DG. SEC (2000) 771.

2 Commission of the European Communities (2000) 'Challenges for enterprise policy in the knowledge-driven economy'. Proposal for a Council decision on a Multiannual Programme for Enterprise and Entrepreneurship (2001-2005). COM (2000) 256. Office for Official Publications of the European Communities: Luxembourg.

3 COM (2000) 567 of 20 September 2000.

4 The Structural Funds and their coordination with the Cohesion Fund: Guidelines for programmes in the period 2000-2006 – COM (1999) 344 of 1 July 1999.

II.11 The Common Fisheries Policy

A geographically concentrated sector

The Common Fisheries Policy (CFP), initiated in 1970, has four main elements: conservation of stocks, structural measures, organisation of markets and international agreements with third countries. Overall, fishing remains an important sector in the EU economy, accounting for around 0.20% of GDP in 1997 (as against 0.25% in 1990) and 0.4% of employment (the same as in 1990).

Fishing is concentrated in coastal and peripheral areas, which are often disadvantaged. In 1997, 70% of fishermen and 60% of those employed in the fisheries sector as a whole lived in Objective 1 regions. In Greece, Spain and Portugal, the sector accounted for just over 1% of employment.

Because of this concentration, any CFP measure which strengthens the competitiveness of the sector tends to contribute to social and economic cohesion.

Areas dependent on fishing and changes in the scale of dependency

Given the concentration of the industry, the Edinburgh European Council (December 1992) officially recognised the existence of Areas Dependent on Fishing (ADFs) and the need to give them special attention.[1] In terms of NUTS 3 regions, 34 ADFs (13 of which were in Greece and 11 in Spain) had, in 1997, a rate of dependency on the sector of between 3% and 15% (see Table A.30 in Annex). At more detailed NUTS 4 or NUTS 5 regional level, dependency is higher, with around 30 ADFs (excluding Greece) having a rate of between 20% and 60%.

The overall dependency of the Union on fishing, in terms of catches, declined only slightly between 1990 and 1997, the reduction being compensated by an increased dependency on fish farming. On the other hand, the map of areas dependent on fishing has changed considerably, with Spain (Galicia and the southern Atlantic regions, in particular) showing the most marked reduction. Dependency also declined in Italy (north-east) and France (Bretagne), while it increased, most especially, in Greece, as well as in Scotland (Peterhead, Western Isles, Shetlands), Portugal (Madeira, Algarve) and Ireland (Galway). Accordingly, the regions in which dependency has risen are those where development is lagging behind.

The social and economic effects of the CFP

Conservation of stocks

In line with the principle of relative stability, fishing quotas are divided equally among Member States and have, therefore, no effect on cohesion. Conservation measures, however, are accompanied by special provisions in favour of fishing communities in ADFs: local fishermen who have traditionally fished in coastal waters of another country can continue to fish within the 12-mile limit, usually accessible only to local vessels.

Fishing effort

Between 1990 and 1997, employment in fishing declined by 19% in the EU (from 313,000 to 252,000). The fall was the result of measures taken to conserve stock and reduce the extent of over-fishing which followed the multiannual guidance programmes (MAGP) and the action taken under the FIFG – Financial Instrument for Fisheries Guidance (structural

section) – to modernise the fishing fleet. In the long-term, however, the adjustment of the fishing effort to available reserves and the restructuring of the sector are likely to arrest the decline.

Processing

Jobs in the processing sector declined by 10% over the period (from 107,000 to 96,000). This reflects both the decline in fishing and the concentration of businesses worldwide (only 50% of processing involves fish caught in the EU). It conceals, however, considerable differences between regions. In Greece, employment in processing increased by 200% and in Italy overall, by 21%, while it fell by almost 5% in Spain and the southern part of Italy. Support from the FIFG for the modernisation of businesses and the growth in fish farming have, therefore, enabled the number of jobs in Objective 1 regions to be maintained or increased.

Fish farming

The significant growth in fish farming, supported by the FIFG (and locally by the PESCA Initiative), has been translated into a substantial increase in both output and employment. Between 1990 and 1997, production in the EU (excluding Austria, Finland and Sweden) rose by 54% in cash terms (being valued at EUR 2 billion in 1997) and by 23% in volume terms (from 880,000 to 1,080,000 tons), some 85% of this rise taking place in Objective 1 regions (70% in Greece, southern Italy and Scotland alone). Employment in fish farming (excluding processing) increased by 20% (from 47,000 to 57,000), the only part of the fisheries sector in which there has been net job creation. Some 70% of job growth in the Union has occurred in Spain, Greece and Portugal. Fish farming has, therefore, developed largely in disadvantaged Objective 1 ADFs and, accordingly, has had a positive effect on social and economic cohesion.

Common organisation of markets

The COM, a means of regulation through supporting prices and direct intervention, is aimed at preventing any form of unfair competition between Member States. It includes three components which are favourable to social and economic cohesion:

a) production aids enable producers to become more competitive as regards processing and distribution, which are much more concentrated and organised, and have a positive effect on social cohesion;

b) the principle of 'regional adjustment coefficients' enables Community withdrawal prices in any given region to be varied according to market conditions or distance from major marketing centres, which is therefore favourable to regional cohesion;

c) as part of the POSEI programme for ultra-peripheral areas, a scheme has been established (under Council Regulation 1587/98) to compensate for the extra costs of selling certain products, arising from their remoteness, in Açores, Madeira and Canarias and the French Departments of Guyane and Réunion.

International fishing agreements with third countries

Evaluation undertaken in 1999 of the effects of international agreements with countries outside the EU indicates that they are important for the Union because they generate value-added (direct and indirect) of EUR 944 million and 40,000 jobs (half of which for seamen). Agreements with countries in the south (mainly Africa), which represent 75% of the value-added resulting from agreements, mostly benefit Spain (80%) and Portugal (7%), especially the ADFs in the Canarias, Andalusia, Pays basco, Galicia, Sesimbra and Olhão, and accordingly have a positive effect on cohesion.

1 An *ADF* is an area (a region or local area of employment) where the contribution of the fisheries sector to the economy, in terms of employment or value-added, is so important that problems in the sector or the decline of fishing have serious social and economic consequences both directly and indirectly. Dependence is analysed in the text in terms of employment, though the same conclusions would be reached if it were measured in terms of value-added, since this has changed in a similar way over time.

Part III — The EU Budget and the contribution of structural policies to economic and social cohesion

III.1 The EU Budget and economic and social cohesion

The objective of strengthening economic and social cohesion is mentioned explicitly in Article 2 of the Treaty and as the first objective of the Union. More specifically, Article 158 states that cohesion is a precondition for harmonious development in the EU: '*in order to promote its overall harmonious development, the Community shall develop and pursue its actions leading to the strengthening of its economic and social cohesion.*' This article, moreover, goes on to stress that fostering cohesion requires that *'the Community shall aim at reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions or islands, including rural areas.'*

The Treaty, by making explicit the aim of reducing disparities in economic development, implicitly requires that EU policies, and cohesion measures in particular, should influence factor endowment and resource allocation and, in turn, promote economic growth. More specifically, cohesion policies are aimed at increasing investment to achieve higher growth and are not specifically concerned either with expanding consumption directly or with redistribution of income. This differs fundamentally from national cohesion policies which are in part aimed at transferring income to the poorest areas.[1]

The EU Budget is a key instrument for enhancing economic and social cohesion. First, even though part of expenditure is not directed explicitly towards this objective, most of it is.

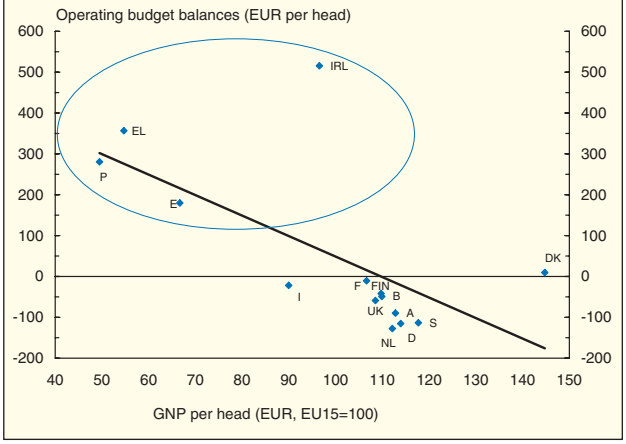
Secondly, it is recognised in the Treaty that contributions to the Budget must take account of the differential ability to pay and that measures need to be taken to ameliorate the adverse situation of the less wealthy Member States.

Member States which are less well off, therefore, tend to emerge as net recipients from the Budget[2] (Graph 21).Such an aggregate measure may, however, be misleading since only part of overall EU expenditure (included in the data plotted in graph), is explicitly of a cohesion nature. Although the cohesion countries are net beneficiaries from the Budget, there is not necessarily a negative relationship between budgetary positions and levels of GNP across Member States, since expenditure includes that devoted to purposes other than cohesion.

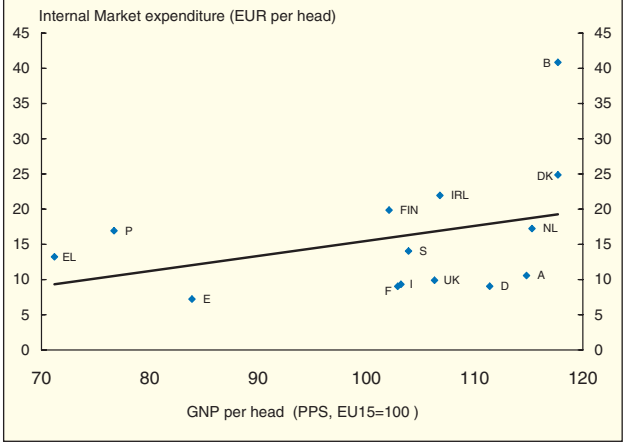
Types of EU expenditure and cohesion

The EU Budget contains no stabilisation function as such. Nevertheless, according to 1999 data, 23.3% of expenditure was on to allocative objectives, 71.4% on redistributive ones and the remainder on administration.

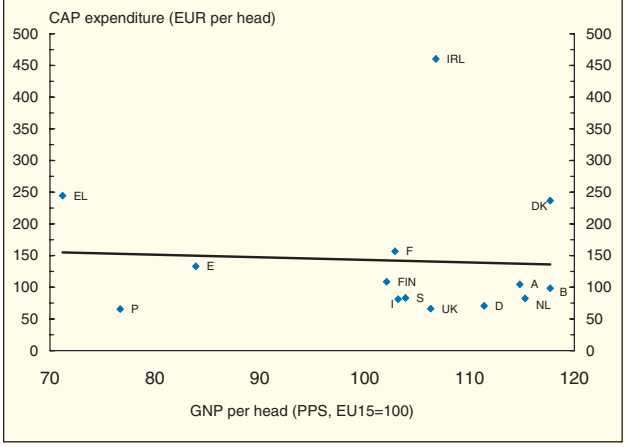
21 GNP and operating budgetary balances, 1999



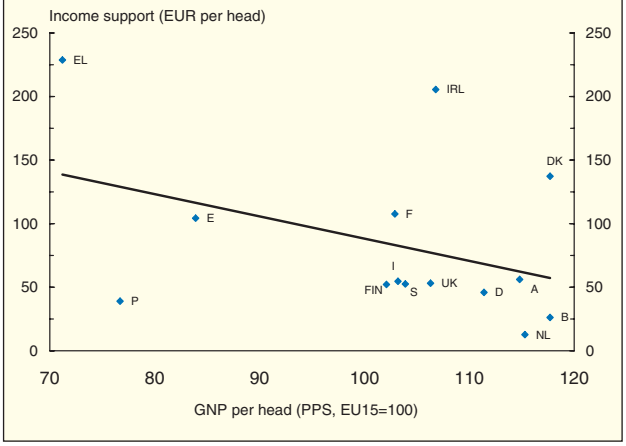
22 GNP and Internal Market expenditure, 1999



23 GNP and total CAP expenditure, 1999



24 GNP and CAP income support, 1999



Allocative expenditure is intended to alter the market allocation of goods and/or services, either to correct market failure or to improve the market outcome. Examples of the former are expenditure on research, trans-European networks and the environment, while expenditure on the CAP is an example of the latter.

Expenditure for correcting market failure is not related to the prosperity of the countries in which it is made and, therefore, does not directly impinge on cohesion (see Graph 22, which shows the absence of any correlation between GNP and Internal Market expenditure).

Allocative expenditure aimed at improving the free market outcome poses more difficulties. In the case of the CAP, for example, it is intended to support prices at a level which gives a fair income to farmers. The cost of this depends on the gap between market prices and support prices, while farmers' income depends only on the level of the latter.

However, an important part of the CAP takes the form of direct income support to farmers and is, therefore, redistributive in nature. CAP support in total is, accordingly, mildly negatively correlated with income (Graph 23) mainly because of the income support component (Graph 24).

EU redistributive expenditure

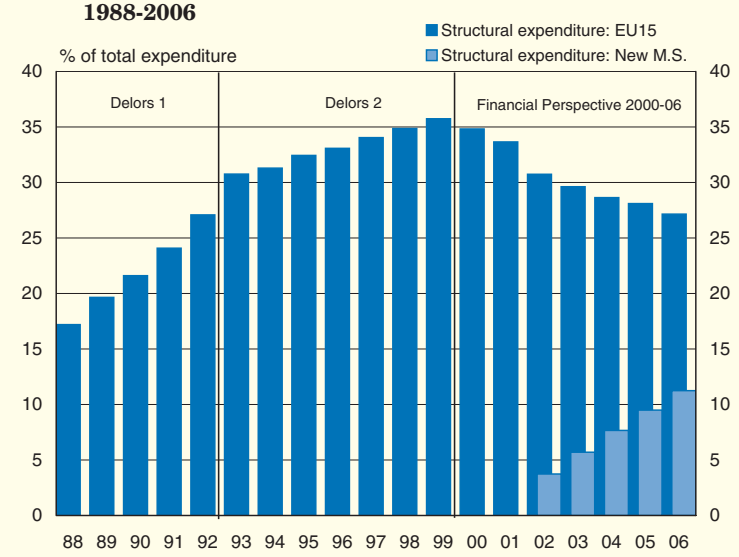
Redistributive expenditure is the main instrument of cohesion policy. This was boosted by the Delors I and II packages, which first institutionalised structural spending and its programming and then expanded the amount and established the Cohesion Fund. The Financial Perspectives 2000 to 2006 put structural expenditure at the centre of the enlargement strategy, allocating around 80% of the total funds for the new Member States to this.

As noted above, the key objective of EU redistributive policy is to reduce regional differences in the level of development through fostering investment. The aim, therefore, is to improve the structural endowment of less prosperous regions or where development needs are greatest. This is pursued through the Structural Funds and many other EU policies which are directed at improving the level of infrastructure, education and scientific research in the regions in question.

The emphasis on growth and investment explains the importance attached to the principle of additionality, under which Community transfers may not lead to a reduction in the structural expenditure financed by Member States themselves. In other words, EU structural aid must be additional to and supplement national investment.

The present system of structural expenditure can then be thought of as a rules-based system in which spending for convergence is tied to specific projects and to explicit financial and other parameters.

25 Structural expenditure (commited appropriations), 1988-2006



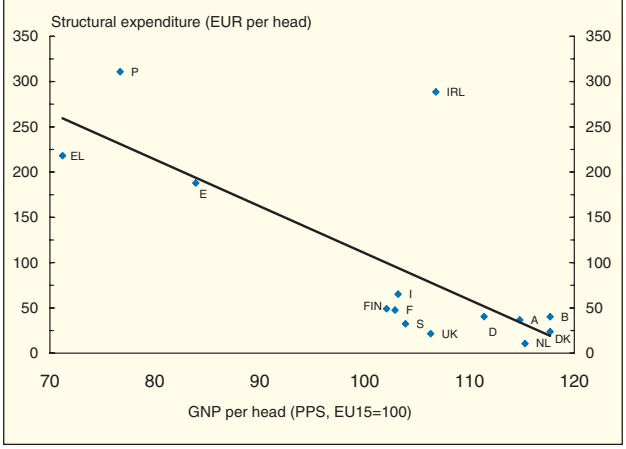
An important aspect of EU structural expenditure is multilateral monitoring under which both recipient Member States and the EU, through the Commission, agree on the Community Support Framework (CSF) and its implementation. One rationale for this is to ensure that convergence aid is used as intended, so providing reassurance to EU taxpayers. The involvement of recipient Member States is for reasons of subsidiarity, in that they are acknowledged to be in the best position to propose projects and to judge the appropriateness of expenditure.

Structural expenditure increased over the two programming periods, 1988 to 1993 and 1994 to 1999, but is due to decline in the period 2000 to 2006 (Graph 25, in which funds going to the acceding Member States are shown separately).[3] There is a clear inverse relationship between structural expenditure and the relative prosperity of Member States, but it is not entirely systematic (Graph 26).

Whilst the largest part of the Structural Funds is allocated on a regional basis, the Guidance section of the European Agricultural Guidance and Guarantee Fund (EAGGF) and the Cohesion Fund are allocated to Member States. The limited importance of the latter in relation to the former (the EAGGF-Guidance and Cohesion Fund account for about 23% of total structural expenditure) can mean that Member States with similar GDP per head have different access to funds, as in the case of Sweden and Italy, for example. In Italy, therefore, there are six regions (accounting for some 33% of the population) eligible for Objective 1 funds, while in Sweden, only a small proportion of the population is similarly covered (under 6%).

As noted above, however, direct income support to farmers under the CAP is different from other EU redistributive expenditure, in that it is aimed at redistributing income between people rather than at fostering investment in particular regions. Indeed, the more the CAP moves away from price support towards income support, the more it becomes a means of interpersonal redistribution, with no direct intention of reducing regional disparities in growth potential. The European Commission has suggested that at least part of this income support could be co-financed by Member States (see European

26 GNP and structural expenditure, 1999



Commission 1998), but this so far has failed to gain unanimous support.

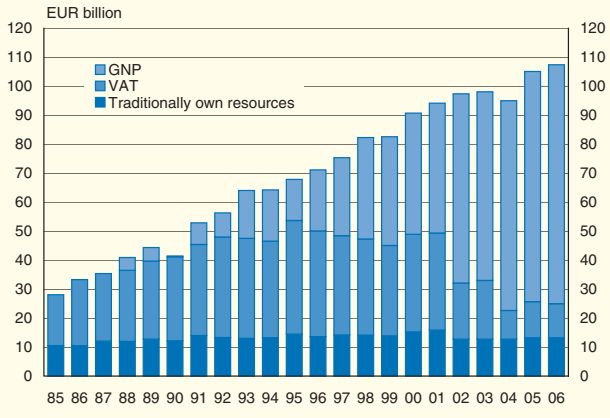
EU Budget revenue

The EU Budget is financed by the EU's own resources, ie custom duties, agricultural and sugar levies, VAT resources and those related to GNP. In recent years, GNP resources have increased in importance, while VAT resources and the other sources have declined (Graph 27). With the new Own Resources Decision, which will come into force on 1 January, 2002, this trend will be further reinforced.

Unlike in the case of national budgets, where progressive taxation plays an important redistributive role, in the EU budget, contributions are proportional to the capacity to pay measured by nominal GNP at current exchange rates. Redistributive objectives, as noted above, are, therefore, pursued through expenditure alone.

The importance of VAT resources to revenue, however, is liable to produce regressive effects. To correct for this, the 1988 Own Resources Decision capped the VAT base of all Member States to 55% of GNP, while the 1994 Decision limited it for Member States with GNP per head below 90% of the EU average (the cohesion countries) to 50% and reduced it progressively for others to 50% by 1999. The 1994 Decision also progressively reduced the maximum call rate of VAT from 1.4% in 1995 to 1% by 1999. The March 1999 Berlin European Council and the new Own Resources Decision further reduced the maximum VAT call rate to 0.75% in 2002 and 2003 and to 0.5% from 2004 on.

27 Composition of EU own resources, 1985-2006



The increased importance given to GNP resources in future years will reduce the regressive nature of the system substantially, so effectively nullifying an issue which could have become potentially contentious with enlargement and the very low levels of GNP per head in many of the acceding countries.

Cohesion and budgetary balances

The balance between contributions to the EU Budget and receipts from it is not a policy objective in itself. Nevertheless, with contributions to the Budget being largely proportional to GNP, expenditure is crucial to determining the configuration of balances. Indeed, whatever their limitations, the latter largely mirror the policy priorities of the Union. The data are consistent with cohesion expenditure being inversely related to regional GDP per head and with the cohesion countries being net beneficiaries of the EU Budget. However, a proper analysis of the contribution of the EU budget to fostering economic and social cohesion needs to take account of the diverse and heterogeneous nature of EU expenditure.

1 Economic literature is nearly unanimous on the positive and direct relationship between income inequality and social policy. For the most recent findings in Europe see, for example, K. Caminada and K. Goudswaard (2000).

2 This can be measured in a number of ways none of which is superior to others, see *Financing the European Union, Report on the Operation of the Own Resources System*, Bulletin of the European Union, Supplement 2/98, especially Annex 3.

3 The data on EU–15 and enlargement-related structural expenditure are from the 'Interinstitutional Agreement between the European Parliament, the Council and the Commission of 6 May 1999 on Budgetary Discipline and Improvement of the Budgetary Procedure', Annex I and Annex II.

III.2 The contribution of structural policies to economic and social cohesion: results and prospects

Since their creation, the Structural Funds and the Cohesion Fund have represented the main instruments of social and economic cohesion policy, which is a priority objective of the Union. These are aimed at strengthening the structural factors which determine competitiveness, and therefore the growth potential of less advantaged regions.

Over 10 years have passed since the reform of the Structural Funds in 1988. A first evaluation of the results was presented in the First Report on Economic and Social Cohesion. This showed the progress made in terms of convergence and cohesion and the contribution of structural policies to the attainment of these objectives. The report had also suggested possible ways of improving the effectiveness of structural policies and these were integrated into the new regulatory framework.

The Berlin Council (March 1999) confirmed the will to continue pursuing this political priority, made even more necessary by future enlargement, because of the substantial differences in the level of development. Given the scale of the financial transfers involved, it is important to assess the effectiveness of the policies pursued in reducing regional disparities and increasing economic convergence.

At the same time, the system for managing the Structural Funds has become more decentralised, with a clearer division of responsibilities and, as a result, the creation of stronger instruments for monitoring, control and evaluation.

This chapter is divided into four sections. The first examines the scale of the effort made to improve economic and social cohesion; the second assesses the results achieved over the period 1994 to 1999; the third attempts to draw lessons from the establishment of the new method of programming for the period 2000 to 2006; the fourth section considers the different financial instruments created to assist the enlargement process.

The financial effort to improve cohesion

The macroeconomic aspect of structural support

Community intervention in support of cohesion involves a significant financial dimension. The Structural and Cohesion Funds together account for over a third of the budget for Community policies (Graph 28).

This financial effort is significant in macroeconomic terms, especially in Objective 1 regions (Table 9). Over

28 Change in the scale of the Structural Funds, 1988-2006

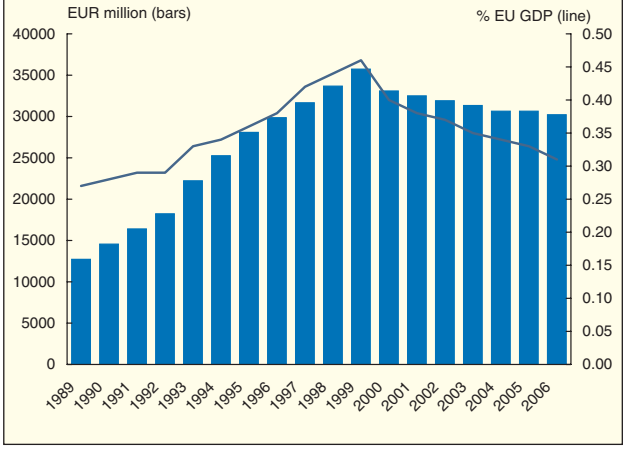


Table 9 Economic effects of the Structural and Cohesion Funds

	Greece	Ireland	Spain	Portugal	EUR4
% GDP					
1989-93	2.6	2.5	0.7	3.0	1.4
1994-99	3.0	1.9	1.5	3.3	2.0
2000-06	2.8	0.6	1.3	2.9	1.6
% Gross fixed capital formation					
1989-93	11.8	15.0	2.9	12.4	5.5
1994-99	14.6	9.6	6.7	14.2	8.9
2000-06	12.3	2.6	5.5	11.4	6.9

Structural and Cohesion Funds: commitment data up to 1999; forecasts for 2000-2006
Source: European Commission, estimates based on Eurostat data and projections for 2000-2006

the period 1994 to 1999, Community funding in Portugal amounted to 3.3% of GDP, in Greece, 3.5% and in Ireland, 2.4%, all three countries consisting entirely of Objective 1 regions. In the other countries with Objective 1 regions, the figure varied between 0.2% of GDP (Germany) and 1.5% (Spain). Community support of investment was even greater, accounting for almost 15% of total investment in Greece, around 14% in Portugal, 10% in Ireland and 6% in Spain. The implication is that, without Community transfers, economic growth, to which investment is a major contributor, would have been less in the cohesion countries. Transfers will, however, decline in scale over the period 2000 to 2006, particularly in Ireland.

Consolidation of financial concentration in Objective 1 areas

Community structural policies have the effect of transferring budgetary resources towards regions where development is lagging. The scale of intervention in the cohesion countries is therefore considerably larger than in the rest of the Union. Almost 70% of total allocations for the Structural Funds for the period 2000-2006 (around EUR 136 billion) will go to Objective 1 regions compared to 68% in 1994-1999 (including Community Initiatives). This financial concentration will enable the average intensity of aid per inhabitant each year in Objective 1 regions to be maintained at the same level as in 1999 (Table 10). These regions will also receive funding from the Community Initiatives.

The use of an objective method for distributing over 97% of the Structural Fund allocations between Member States has made it possible to maintain the concentration of finance in the less prosperous countries and regions. Accordingly, the less prosperous countries receive more aid per head (Graphs 29 and 30) and 60% of the Funds go to regions which, together, account for 20% of EU GDP (Graphs 31 and 32).

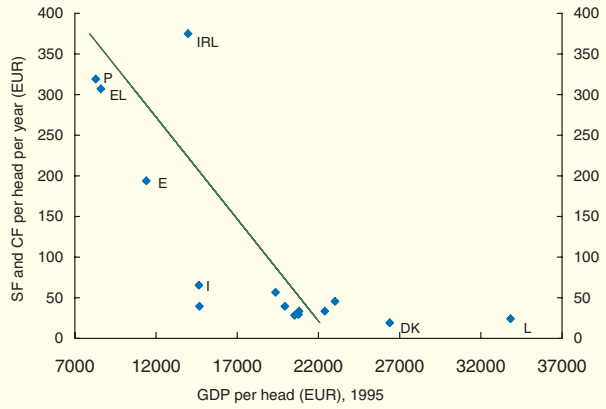
Increased geographical concentration

One of the priorities of Agenda 2000 was to increase the geographical concentration of support in the most disadvantaged areas of the Union, as well as providing temporary support for regions where Community

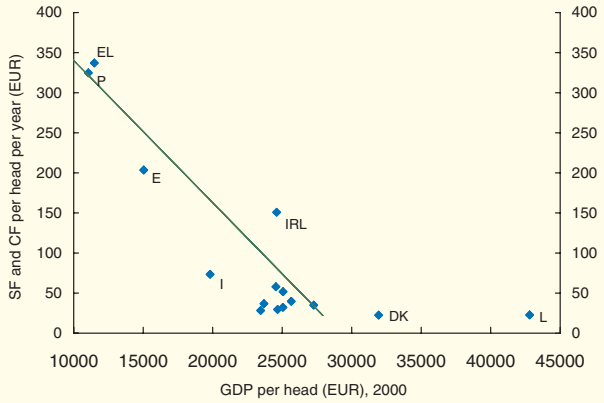
Table 10 Expenditure by Objective in successive periods, excluding phasing-out (average EUR per head per year at 1999 prices)

	1989-93	1994-99	2000-06
Objective 1	123	187	220
– highest	*(IRL) 253*	*(IRL) 262*	*(P) 348*
– lowest	*(D) 62*	*(B) 95*	*(S) 104*
Objective 2	21	46	41
Objective 3		10	12
Cohesion Fund		41	40

29 Structural and Cohesion Funds, 1994-99, and GDP per head by Member State



30 Structural and Cohesion Funds, 2000-06, and GDP per head by Member State



aid is set to come to an end. In 2006, Objectives 1 and 2 will cover 41% of EU population, a proportion close to the Commission's proposal in Agenda 2000, which was for a maximum figure of between 35% and 40%. This is the highest degree of geographical concentration achieved since the reform of the Structural Funds in 1988 (Table 11).

The increased geographical concentration is the result of the strict application of the eligibility criterion for Objective 1 and the introduction of ceilings on eligible population, decided by the Commission, for each Member State as regards Objective 2.

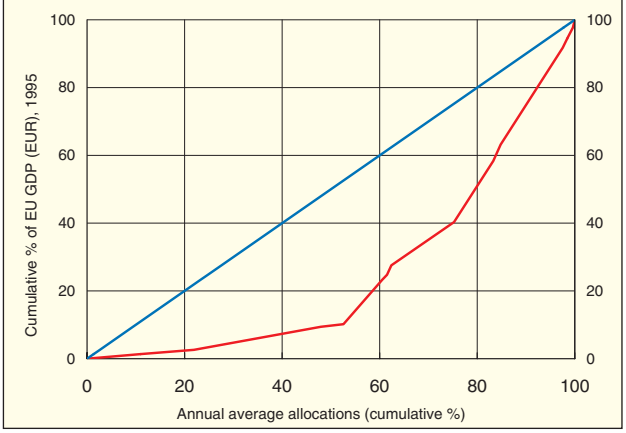
Objective 1

For Objective 1 regions, the strict application of the 75% of average EU GDP threshold, except for northern regions in Sweden and Finland which were eligible for Objective 6 in the period 1995 to 1999, led to a coverage rate of 22.2% of EU population (as against 24.6% in 1999). There is some continuity with the earlier period, except for the regions eligible for transitory support and the UK, for which the coverage rate has been increased by almost half (see Table A.31 for the support provided by country in the two programming periods).

Objective 2

For Objective 2 areas, the coverage rate was reduced to 18% of EU population (from 25% in 1999 for Objectives 2 and 5b together). Within the population ceilings decided by the Commission,[1] Member States had considerable room for manoeuvre in drawing up the list of eligible regions, while complying with the obligation to ensure that at least 50% of the population concerned fulfilled the so-called

31 Allocations of Structural Funds and GDP by Member State, 1994-99



32 Allocations of Structural Funds and GDP by Member State, 2000-06

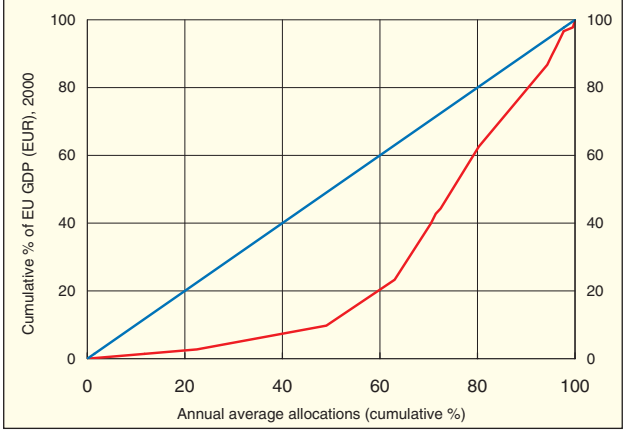


Table 11 Coverage rate of Structural Funds, 1993-2006

% total population

	1993	1999	2006
Objective 1	21.7	24.6	22.2
Objective 2	16.8	16.4	18.2
Objective 5b	5.0	8.8	–
Total	43.5	49.8	41.3

'Community' criteria. The areas adopted by the Commission, on the basis of Member State proposals, cover 47% of the total population eligible for Objective 2 and consists of the priority areas defined according to the Community criteria.[2] (See Table A.32 for the support provided by country in the two programming periods.)

Predominance of industrial and urban areas

Following the Commission decisions in 1999 and 2000, the distribution between the four types of area will be very similar to that indicatively agreed by the Council: industrial areas eligible for Objective 2 will account for 8.5% EU population, rural areas, for 5.2%, urban areas, for 1.9%, areas dependent on fishing, for 0.3% and mixed areas, for 2.1%.

At the EU level, the share of rural areas in Objective 2 will therefore be slightly higher than indicated in the regulations. In addition to the measures implemented under the rural development policy supported by the EAGGF-Guarantee section, Member States have judged it useful and necessary to make the more vulnerable rural regions eligible for a wider range of support measures from the ERDF and the ESF.

Although urban areas in decline appear to be under-represented, this is not the case, since they are also included among industrial areas. The same is true of the areas dependent on fishing, since in order to be able to implement policies for restructuring in areas of sufficient size, a number of Member States have included some ports in areas eligible for assistance under rural or industrial criteria.

The distribution between different types of area varies markedly between Member States. Urban areas are relatively important in Belgium, the Netherlands, Luxembourg and the UK, while higher priority is given to rural areas in Denmark, Sweden, France, Italy and Austria, and industrial areas predominate in Germany and Spain. In Finland, the distribution is similar to the EU average pattern.

Territorial continuity and fragmentation

Few areas not covered by either Objective 2 or Objective 5b during the period 1994 to 1999 were proposed by Member States for eligibility under any of the Objectives, these being estimated to have a population of around 9.4 million, only 16% of that eligible for Objective 2 for the period 2000 to 2006. This continuity of eligible areas suggests that Member States considered the results achieved up until then were not sufficient to justify ending EU support, even if accompanied by transitional assistance.

The general statement needs, however, to be qualified. Four Member States (Germany, Belgium, Finland and the Netherlands) have in fact modified the choice of areas for support significantly as compared with the 1994 to 1999 period, mainly to take advantage of the urban dimension of the new Objective 2.

The intervention of the Structural Funds in urban areas in difficulty should create the economic conditions for a reduction in crime and complement specific policies for combating and preventing crime.

In addition, a considerable degree of fragmentation of eligible areas is evident, reflecting Member States' attempts to maximise the overall coverage of Objective 2. This could make it more difficult to implement a policy of restructuring, given that it multiplies problems of distinguishing between different areas and so complicates the management of programmes. Such a fragmentation gives rise to the risk of diluting the effects of Community intervention.

Limited coherence with the maps of State regional aids

In the Commission's view, both Community and national intervention should be concentrated in areas most in difficulty so as to provide the means for their restructuring. Accordingly, it had recommended improving the coherence between the map of State regional aids and that of areas eligible for Objective 1 and 2 support.

In 1997, the Commission also adopted a 'Communication on the links between regional and competition policy',[3] in which it proposed a number of measures

Table 12 Coherence between areas eligible for Structural Funds and eligible for regional State aid

% EU population

	Regions eligible for Structural Funds		Regions not eligible for Structural Funds		Total	
	1994-99	2000-06	1994-99	2000-06	1994-99	2000-06
Areas eligible for regional State aid	44.0	35.6	2.7	6.7	46.7	42.3
Areas not eligible for regional State aid	6.6	5.8	46.7	51.9	53.3	57.7
Total	50.6	41.4	49.4	58.6	100	100

Period 2000-2006: estimates based on a geographical comparison at NUTS5 level
Sources: Eurostat, DG Comp, calculations DG REGIO

to improve the consistency between the list of areas eligible for national regional aid and the list of Objective 1 and 2 regions. Many of the proposals formulated in this Communication have been implemented:

- The Commission aligned the duration of the regional aid maps on that of the Objective 1 and 2 maps. Both lists now cover the same period, namely 2000 to 2006.

- The criteria for eligibility under Objective 1 and Article 87(3)(a) of the Treaty (aid to promote the economic development of lagging regions) were harmonised, except for the former Objective 6 regions in Finland and Sweden. Some of these low population density areas were granted Objective 1 status in spite of the fact that they did have a per capita GDP which was higher than 75% of the EU average. In order to ensure full consistency between the Objective 1 map and the regional aid map, all low population density areas with a GDP per head exceeding 75% of the EU average have been granted Article 87(3)(c) status (aid to facilitate the development of certain economic activities or areas).

- The 1997 Guidelines on national regional aid and the new Structural Funds regulation gave Member States greater flexibility in proposing Article 87(3)(c) and Objective 2 regions. In its Communication on the links between regional and competition policy, the Commission invited Member States to use this flexibility to ensure greater consistency between the two lists. In order to facilitate this process, the Guidelines provided that areas eligible under the Structural Funds may qualify for the Article 87(3)(c) derogation.

In effect, in relation to Objective 2, the new Structural Funds regulation adopted by the Council did not include this requirement for greater coherence with the areas which benefit from derogations under Article 87(3)(c).

A comparison between the Objective 1 and 2 maps and the regional aid maps for the period 2000 to 2006 shows that the geographical coherence between the two has improved slightly compared to the situation in the period 1994 to 1999 in all Member States, except for Belgium (where there was perfect coherence in the earlier period) and the UK (where, together with Finland, France, the Netherlands, Sweden and Italy, the lack of coherence remains marked) (Tables 12,

Table 13 Population in regions eligible for Structural Funds but not for regional State aid

% total population in each country

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU15
1994-99	0.0	0.0	5.3	0.0	8.9	9.6	0.0	7.5	6.4	10.4	5.9	0.0	12.6	8.7	9.0	6.6
2000-06	3.4	0.1	2.3	0.0	4.3	8.8	0.0	7.0	0.3	8.2	3.9	0.0	12.0	7.4	9.8	5.8

Period 2000-2006: estimates based on a geographical comparison at NUTS5 level
Sources: Eurostat, DG Comp, calculations DG REGIO

13 and, in Annex, Table A.33). The responsibility for this rests with the Member States. This could threaten the restructuring of problem areas eligible for Objective 2, since they might not enjoy a significantly higher level of support than those areas not covered by the Structural Funds but entitled to State aids.

Thematic concentration: the preponderance of spending on infrastructure

Concentration of expenditure on particular policy areas is aimed at ensuring that the priorities defined in the programmes reflect both the factors underlying economic growth and the EU's political priorities.[4] There is almost universal consensus among economists on the types of action which are likely to initiate a process of endogenous and sustainable growth. Community structural measures, however, are selective, complementary to those of Member States and not claimed to be solutions which are generally applicable.

For Objective 1 regions, the priority areas from a cohesion perspective, there have been some changes in the distribution of the funds between the three major areas of intervention – infrastructure, human resources and productive investment (Table 14).

The share of spending on infrastructure has been increased for the period 2000-2006, to around 34% of the total (as against under 30% between 1994 and 1999), half of which is for transport networks, with high concentration of investment in the cohesion countries because of existing needs. If the Cohesion Fund is also taken into account, infrastructure represents more than 40% of total investment allocated to Objective 1 regions.

Table 14 Structural Funds by broad area of intervention under Objective 1

% total

	1989-1993	1994-1999	2000-2006
Infrastructure	35.2	29.8	34.3
Human resources	29.6	24.5	23.9
Productive environment	33.6	41.0	34.8
Other	1.6	4.7	7.0

Source: European Commission

While the share of expenditure allocated to investment in human resources (around 24%) is due to decline slightly, higher priority is given to active labour market policies and to strengthening education systems (especially in Italy and Portugal).

The share of expenditure on productive investment (around 35%) has been reduced markedly, particularly in the cohesion countries and Italy, because of a decline in direct aid to industry as stricter rules are applied.

More specifically, Structural Funds play a major role in supporting environmental protection, which accounts for over 10% of the total allocated for Objective 1. They are also directed towards improving access to peripheral regions and developing training and research activities, which are essential to the Information Society and which, because of national budget constraints, could not be fully carried out without Community support. In Greece, for example, investment in major transport networks in the 7 years of the present programming period will be 1½ times larger than in the preceding period.

In addition to the financial aspects, a number of qualitative changes are also evident in the new programming period, such as increased support for the information society and for sustainable development, two major components of present regional policy. These issues are analysed in more detail below.

Additional support for national efforts

Over the period 1989 to 1993, overall public structural expenditure in Objective 1 regions amounted to 1.3% of EU GDP, or to an average of EUR 92 billion. The Structural Funds accounted for around 15% of this. Over the period 1994 to 1999, structural expenditure in these regions declined to EUR 82 billion, a reduction of 12% compared with the previous period, despite an increase in spending from the Structural Funds of EUR 2 billion a year, or of 15%. The overall reduction is explained, on the one hand, by the privatisation of public enterprises in Italy and Portugal, in particular, and, on the other, by a reduction of almost half in German expenditure in the new Länder, in order to bring it down to a level comparable to that in other Member States.

The scale of public expenditure in support of development in Objective 1 regions varies considerably between Member States, though data need to be interpreted with caution. As well as Sweden, where spending (EUR 6,000 per head) is well above that in other Member States, Germany increased expenditure substantially over the period 1989 to 1993 in the new Länder to EUR 41 billion, or EUR 2,500 per head, 2½ times the average level in the Union. In Greece and Portugal, spending was much higher in relation to their economic potential than elsewhere, at 5-7% of GDP, while in other Member States (Germany, Spain, Italy and Ireland), the figure was 3% of GDP or less. By contrast, in France, expenditure on structural measures in Objective 1 regions in the 1994 to 1999 period amounted to only 0.2% of GDP (EUR 2.3 billion), which still represented EUR 890 per head in the regions concerned. The same total amount was spent in Ireland, which meant expenditure per head over the country as a whole of EUR 650.

Member State forecasts for the period 2000 to 2006, show a rise in average structural expenditure a year of 9%, to around EUR 90 billion. This increase is necessary, if the level of public support for the catching-up process in lagging region is to be maintained, though it appears to vary considerably between Member States. In addition to Ireland, where a projected doubling of expenditure is explained by the low level in the preceding period, an increase of 30% is expected in Greece and a rise above the EU average in Italy. In Germany, the forecast is for a reduction in structural expenditure of 9% in the new Länder, for the same reason as in the previous period.

These forecasts, however, imply an overall reduction in structural expenditure relative to GDP over the present programming period, except in a few Member States (Greece, Ireland and Italy), despite favourable economic prospects up to 2006.

The Cohesion Fund: improved balance between transport and the environment

A total amount of EUR 15 billion (at 1992 prices) were allocated by the Edinburgh European Council to the Cohesion Fund for the period 1993 to 1999 for the Member States where GDP per head was below 90% of the Community average. For the period 2000 to 2006, the Berlin European Council allocated EUR 18 billion (at 1999 prices) to the Fund and decided that eligibility should be re-examined halfway through the period in the light of the outturn for GDP.

In terms of the distribution of funds between areas of investment, it should be noted that a slightly larger share of expenditure went to environment than to transport over the period 1993 to 1999, even if in Greece the transport share was a little higher (Table 15). Within environment, there was a significant increase in investment in waste water facilities in order to meet the obligations imposed by Community Directives, and within transport, increased importance was given to investment in railways.[5]

Table 15 Cohesion Fund: resources committed by area of intervention, 1993-1999

	Transport % total	Environment % total	Total EUR mn
Greece	51.2	48.8	2998
Spain	49.7	50.3	9251
Ireland	50.0	50.0	1495
Portugal	48.1	51.9	3005
Total	49.7	50.3	16761

Source: European Commission

The European Investment Bank: active support for regional development

The main means by which the European Investment Bank (EIB) assists regional development is through loans for individual projects. These amounted to over EUR 66 billion over the period 1994 to 1999, or 77% of the total of such loans in the Union (Table A.34). Most of them, 83%, went to the financing of infrastructure projects, in transport, telecommunications and energy, which, in most cases, formed part of major networks of European interest, which together accounted for around 86% of all loans for infrastructure.

Loans for individual projects expanded by over 25% between 1994 and 1999. The main growth, however, occurred in global loans (loans to financial institutions for small and medium-scale projects), which amounted to EUR 20 billion over the period as whole, accounting for around 30% of total EIB lending, and which more than doubled in terms of the annual amount between the two years. These went mainly to financing productive activities, in industry in

particular, though also to helping to fund smaller scale infrastructure projects.

The complementarity between global loans and those for individual projects, which stems from the capacity to adapt to the specific characteristics of different projects and managers in different sectors and regions, has been a strong point in the EIB's ability to support regional development.

The EIB's total lending for projects relating to regional development was significantly higher in the period 1994 to 1999 than in the preceding programming period, annual loans being almost 50% greater (Table 16). Although this increase was smaller than that recorded by the Structural and Cohesion Funds as a whole, it still demonstrates a growing commitment by the Bank to projects for strengthening cohesion and regional development. The increase was most marked for projects in Objective 2 and 5b areas (lending rising by 71%), especially for those aimed at offsetting industrial decline and containing unemployment.

The EIB plans to collaborate more closely with the Commission over the period 2000 to 2006, in order to make the most of the potential complementarity between its activities and Community structural aid. It will, in particular, continue to support the creation and development of productive activities in the more disadvantaged regions, not only by helping to finance these directly, but also by supporting the services necessary for their development, as well as improvements in infrastructure, especially those aimed at increasing accessibility and energy supply. In addition, growing attention will be focused on the competitiveness of firms in the context of the 'Innovation 2000' Initiative. Viewing regional development more widely, the same orientation of policy will also apply to the candidate countries.

Assessing the effects of Community intervention (1994-99)

The aim here is to assess the results of structural policies over the last programming period. This, however, is inevitably still a preliminary exercise since some of measures will not be completed before the end of 2001 and the results of the *ex-post* evaluations will not be available before this date. The analysis focuses on the extent to which appropriations for Community intervention have actually been spent, the results achieved both in total and by Objective, the value-added of Community initiatives and the efficiency of the procedures.

Budget implementation

Information on the implementation of the budget for the period 1994 to 1999 gives an indication of the progress achieved, even though a number of programmes have not yet been completed, since payment can be extended up to December 2001 (see Table A.35). Up to the end of 1999, the results appear to be satisfactory, in the sense that appropriations

Table 16 EIB lending, 1989-1993 and 1994-1999

	1989-1993	1994-1999	Change
	EUR mn		%
Regional development			
- total period	47.1	85.4	81.0
- annual average, of which	9.4	14.2	51.0
- Objectives 1 and 6	5.0	6.4	27.0
- Objectives 2 and 5b	3.4	5.8	71.0
Structural and Cohesion Funds			
- total period	70.0	166.7	138.0
- annual average, of which	14.0	27.8	100.0
- Objectives 1 and 6	8.8	15.8	80.0
- Objectives 2 and 5b	1.7	3.7	117.0

Lending consists of signed individual loans and current global loans
Source: EIB and European Commission

amounted to 99% of total support available and payments to 75%. It is the latter, it should be noted, rather than appropriations as such which provides a better guide to the actual implementation of programmes on the ground. Taking the Member States with Objective 1 regions together, with almost all appropriations committed – as statutorily required – overall commitments are in line with the growth of expenditure as budgeted in 1994 in the Community Support Frameworks (CSFs), Single Programming Documents (SPDs) and related programmes. As regards the payment of appropriations, some Member States among the main beneficiaries of the Funds (Spain, Portugal, Ireland, Germany) were well above the EU average at the end of 1999 (78%), while France, Italy, the Netherlands and the UK lagged most significantly behind (at only 67%).

The monitoring systems established in Member States have, however, enabled start-up problems and implementation difficulties to be identified and followed and the measures involved to be reprogrammed in agreement with the Member States concerned.

For the other Objectives, implementation is variable. In the case of Objective 2, a number of programmes, which were only adopted at the end of 1997 or in 1998, could not be satisfactorily implemented in 1999 and, as a result, overall payments were relatively low (60% of the total funds available). Moreover, some 3% of total appropriations for the period (EUR 477.5 million) could not be carried out and, therefore, had to be returned to the Community Budget.

For Objectives 3 and 4, cumulative appropriations were committed in full. Payments amounted to 80% of total funds available for Objective 3, but to only 69% for Objective 4, because of delays in the UK and Italy as well as the innovative nature of a number of measures.

In the case of the agriculture part of Objective 5a, the rate at which appropriations were actually implemented, as reflected in payments, was below that for other Objectives, while for the fishing part, it proved possible to make good the delays experienced in earlier years, so all appropriations were committed and payments amounted to 73% of total funds available. For Objective 5b, there have been persistent delays in payments in a number of Member States, due to complicated implementation procedures (Italy) and the unsatisfactory functioning of regional partnership (Belgium).

For Objective 6, which relates to only two Member States, the situation is very different. Although total appropriations have been committed, payments amounted to only 65% of the funds available in Finland and 54% in Sweden, but this reflects the fact that programmes were not adopted until 1995 when they joined the Union.

The above levels of payment – and, therefore, as noted above, the actual implementation of structural measures – are, in general, satisfactory, especially for Objective 1 and Objective 3 programmes, and are broadly in line with the rates foreseen in the provisions for the various types of assistance.

In the case of the Cohesion Fund, around 92% of appropriations for the period 1993-99 were matched by payments by the end of 1999. Nevertheless, the implementation of projects in 1999 varied considerably from Portugal (85%), at one extreme, to Greece (65%), at the other.

Trends in eligible regions

Analysis of trends in eligible regions reveals an encouraging performance by Objective 1 regions as a whole, but this is less marked for Objectives 2 and 5b regions.

There was some convergence of GDP per head in Objective 1 regions towards the EU average, the level, in PPS terms, in these areas taken together increasing from 63% of the average in 1988 to 70% in 1998, which means that the gap was reduced by a sixth (Graph 33). This, however, conceals significant differences between regions. Some regions have caught up considerably, especially the new German Länder (where GDP per head increased from 37% of the EU average in 1991 to 68% in 1995) and Ireland (where it rose from 64% to 102%), as well as Lisbon, Northern Ireland, Burgenland and Flevoland, where GDP increased from below to above the threshold of 75% of EU GDP over the period. Other regions have experienced little growth or even a decline in GDP per head: in Greece, Central Macedonia (from 63% of the EU average to 60%), Ipeiros (unchanged at 43%), Sterea Ellada (from 72% to 64%), Peloponnese (from 58% to 57%), in Italy, the Mezzogiorno as a whole

(from 69% to 68%) and in the UK, Merseyside (from 80% to 75%) and Highlands and Islands (from 83% to 76%).

On the other hand, unemployment in Objective 1 regions remains high (16.6% in 1999 as against 9.2% for the EU as a whole), although along with the EU average rate, it has declined over the past three years (Graph 34). In a number of regions, unemployment is still well above the EU average, especially the Objective 1 regions in Spain (19.3% in 1999, though down from 27% in 1994), the French DOMs (32%), Italy (22.4%) and the new German Länder (16.7%).

These high levels of unemployment go hand in hand with low rates of labour force participation, because of scarce job opportunities and insufficient rates of job creation, even in periods of economic recovery, which means that the gap with the rest of the Union in terms of employment rates (the proportion of working-age population in work) is even wider.

The level of productivity in Objective 1 regions has changed comparatively little relative to that in the rest of the EU, GDP per person employed increasing from 64% of the EU average in 1988 to 67% in 1998. Nevertheless, there were substantial increases in Ireland and the new German Länder.

In general, the performance of regions is closely bound up with the general economic context in which they are developing. The example of Ireland demonstrates what can be achieved with a favourable combination of structural intervention and a sound and stable macroeconomic policy.

For regions in receipt of assistance under Objectives 2 and 5b over the period 1994 to 1999, in which employment was relatively dependent on industry and agriculture, unemployment remained relatively low and stable in the latter, while in Objective 2 areas, it declined by more than the EU average between 1995 and 1999 (by 2.2 percentage points as against 1.3 points). Even though the rate is still slightly higher than EU average, the experience in both these and Objective 5b regions suggests that Community assistance has been beneficial.

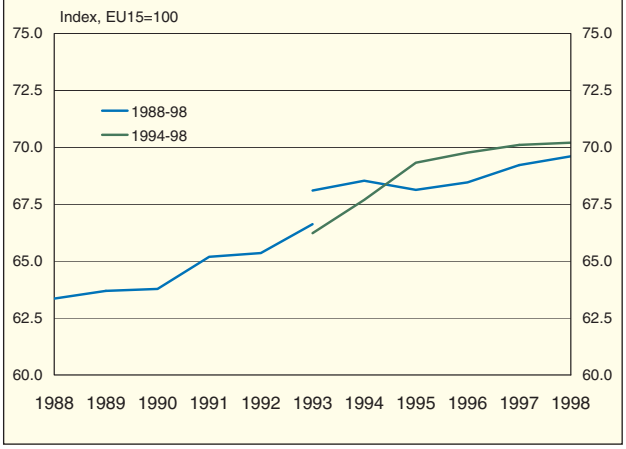
Objective 1: Catching-up and modernisation

Structural support for Objective 1 regions lies at the heart of cohesion policy in the Union. Accordingly, it is essential to assess its effects as rigorously as possible. There has been significant convergence of GDP per head in Objective 1 regions over the past 10 years, but this in itself does not necessarily signify that the policy has been effective. Nevertheless, it is possible to demonstrate that Community assistance has had positive and long-lasting effects in both increasing economic growth and strengthening underlying structural factors which determine competitiveness and, therefore, future potential growth.

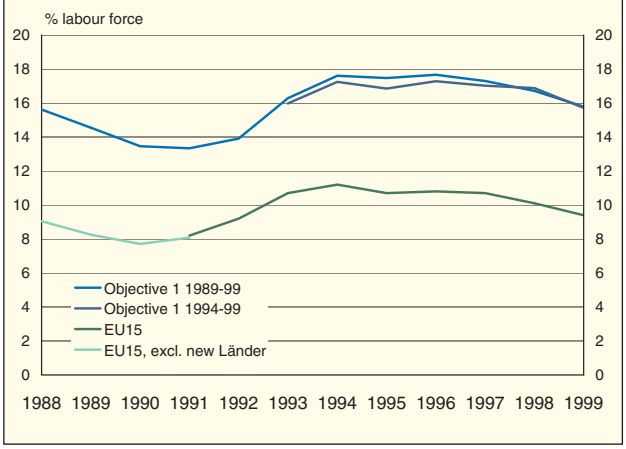
Macroeconomic impact: significant effects on growth, less on employment

Structural assistance has had significant effects in boosting economic growth in the countries and regions for which analysis is possible. Over the period 1994 to 1999, the gap in GDP per head has been closed considerably in a number of countries. In

33 Objective 1 regions: GDP per head (PPS), 1988-98



34 Objective 1 regions: unemployment rates, 1988-99



Ireland, Portugal and Spain, annual GDP growth over the these five years was well above the EU average (almost 1 percentage point above in the latter two and 6½ points above in Ireland). Investment growth was also higher, laying the basis for growth in the longer term.

Transfers from the Structural Funds added directly to demand and economic activity, but more importantly, since they were concentrated on investment in both physical and human capital, they were aimed at increasing growth potential in the medium and long-term.

Recent evaluations of the Community Support Frameworks (CSFs) in the last two programming periods indicate that the estimated effect on growth was highest in Greece and Portugal, where the level of GDP rose by 9.9% and 8.5%, respectively, over and above what would have been expected in the absence of assistance (Table 17). The estimates for Ireland (3.7% higher) and Spain (3.1%) are lower, but still significant. Increased growth resulted in lower unemployment, particularly in Greece, though also in higher productivity growth in the manufacturing sector.

The estimates of the 'supply-side' effects on growth are of the same order as the direct effects on demand and become predominant in the longer-term as the strengthening of productive potential boosts output.

Improvements in competitiveness

Although structural policies are ultimately judged in terms of their effect in narrowing regional disparities in GDP per head and employment, it is their impact on the underlying factors which determine economic development which is a prime consideration. Substantial progress has been achieved in improving basic infrastructure in weaker regions, but imbalances persist in RTD, access to know-how, the Information Society and continuing training, and the quality of the environment. The Structural and Cohesion Funds make a significant contribution to correct these disparities.

Transport infrastructure – improving accessibility

An efficient transport system is essential to regional development. Investment in improving the system, however, needs to take account of the balance between different modes of transport (road versus rail) and the potential effect on the environment.

Transport accounts for over half of total investment in infrastructure. Investment in improving the transport network in the cohesion countries and southern Italy over the period 1994-99 amounted to over EUR 40 billion, a third of which went to Spain. This was largely concentrated on roads (around 56%), while just under a quarter of expenditure went on railways (around 23%). In Spain and Ireland, roads accounted for a larger proportion of investment than elsewhere (73% and 68%, respectively) (Graphs 35 and 36, where expenditure includes financing from the Structural and Cohesion Funds and EIB lending for regional development, and Table A.36).

This investment served to reduce disparities in transport between these countries and the rest of the EU significantly, especially in respect of roads and the standard of the rail network (high-speed trains, electrification and double-track). As a result, accessibility was improved through reductions in travel time, by around 20% on average in Spain (largely through improving the road network) and 70% in respect of rail freight in Portugal (Table 18), and better links were established between the least prosperous areas and

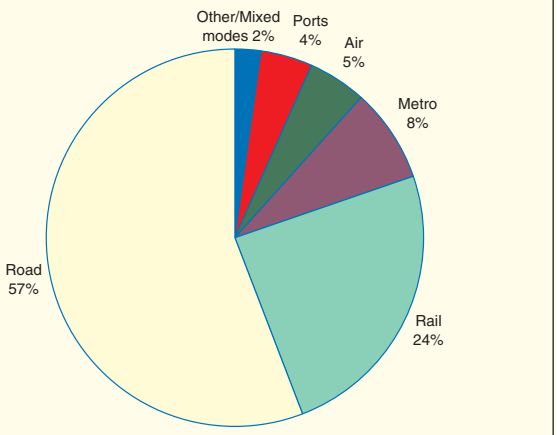
Table 17 Effect of Community structural intervention on GDP and unemployment, 1989-99

(% of non-intervention estimate)

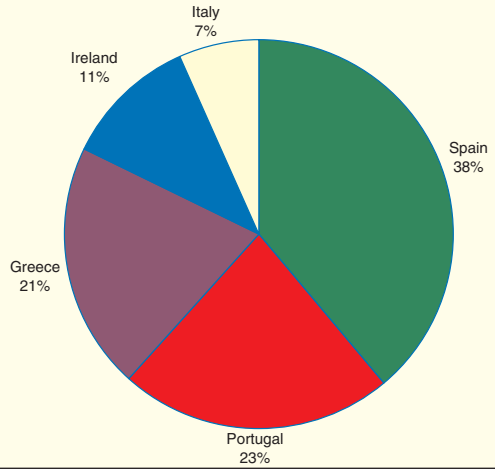
	Greece		Ireland		Portugal		Spain	
	GDP	*Unemp. rate*	*GDP*	*Unemp. rate*	*GDP*	*Unemp. rate*	*GDP*	*Unemp. rate*
1989	4.1	-3.2	2.2	-1.4	5.8	-3.6	0.8	-0.5
1993	4.1	-2.9	3.2	-1.0	7.4	-4.1	1.5	-0.8
1999	9.9	-6.2	3.7	-0.4	8.5	-4.0	3.1	-1.6
2006	7.3	-3.2	2.8	0.4	7.8	-2.8	3.4	-1.7
2010	2.4	0.4	2.0	0.5	3.1	-0.1	1.3	-0.4

Source: ESRI, estimates based on the HERMIN model (2000)

35 Breakdown of expenditure on transport infrastructure (EUR 1994 million), 1994-1999



36 Breakdown of expenditure on transport infrastructure (EUR 1994 million), 1994-99



other parts of the country and, indeed, of Europe (eg through motorways in Spain). In addition, access to ultra-peripheral areas (French DOMs) was improved through the construction or upgrading of airports.

In many cases, use of the Structural Funds gave rise to private sector investment and the establishment of public-private partnerships (as, for example, in the construction and management of roads in Portugal, the port of Gioia Tauro in Italy and Spata airport and the Rion-Antirion bridge in Greece). In addition, the construction of infrastructure financed partly with EU assistance resulted in net job creation of around 900,000 persons a year (in full-time equivalent terms), mainly in Objective 1 regions.

The Cohesion Funds have made a significant contribution to transport improvements through financing projects included in national and regional economic development programmes, most of which involved a specific assessment of the environmental impact. As a result, they have reinforced beneficial effects of ERDF intervention and helped to reduce regional disparities further. According to a recent study (carried out by the London School of Economics in 1997),[6] they have increased employment and private investment significantly in recipient regions, with large spillover effects in neighbouring ones. The estimated effect of 9 projects in Spain, with a total investment of EUR 2.5 billion, was to add around 0.6% to both GDP and employment in the medium-term (equivalent to some 75,000 jobs).

However, the need for investment in infrastructure remains. Analysis carried out for the European Spatial Development Perspective indicates that while investment in peripheral regions has improved accessibility, it has been accompanied by similar investment in neighbouring regions and more central ones (in rail networks, for example), which can counteract any relative gain. The overall effect of such investment, moreover, depends on what other measures are

Table 18 Estimated saving in travel time due to Structural and Cohesion Fund investment, 1994-99

	Greece	Spain	Ireland	Portugal	Italy (Obj.1)
Road	20-30%	10-20%	10-15% (190 mn for three main routes)	20%	34%-87% (for 5 main roads)
Rail	Around 10% (1hour 35mn for Athens-Thessaloniki)		-	20-40% et 73% (for freight to Spain)	14% (increase in speed of 10kph)
Other	50% (Athens metro)		10% (with the UK)	-	

Source: Oscar and Faber, Thematic evaluation on the impact of Structural and Cohesion Funds transport (2000)

taken to stimulate economic activity in the regions concerned.

Supporting SMEs: critical to regional competitiveness

Supporting SMEs is a priority of EU policy since they are a vital source of competitiveness and job creation, especially in Objective 1 regions. The Structural Funds provide support in a variety of ways, including through services (information, training and guidance, in particular) and help in financial engineering as well as through financial assistance. Over the period 1994 to 1999, an estimated EUR 14 billion (14.5% of total funds for Objective 1) went to these kinds of measure (see Tables A.38 and A.39). Over 500,000 firms (16% of the total in eligible regions) were assisted through direct aids (over a third of total, finance) and other measures.[7]

Evidence, in the form of an EU-wide evaluation, based on surveys and case-studies, suggests that the Structural Funds had a significant effect on SMEs over the last programming period. In the absence of Community support, it is estimated that 70% of investment projects would have either not taken place at all, or been smaller in scale or postponed and that assistance contributed to creating more than 300,000 additional jobs, even after taking account of 'deadweight' and substitution effects. The evidence also emphasises the potential of financial engineering schemes as an intsrument of intervention, even though they might take a long time to be established in regions where financial services are weak.

EU support of SMEs has demonstrated a specific added-value in many respects. First, it has added to the funds available at national level. Secondly, co-financed measures have often addressed the structural problems SMEs face, in particular, by providing business services (eg in respect of innovation and technology) and introducing new practices (eg financial engineering). Thirdly, in a number of countries, it has enabled SMEs to become an 'instrument' for regional development and procedures for selecting and implementing projects to be improved.

On the other hand, the evidence indicates that assistance has been concentrated mainly on providing grants rather than loans and risk capital, which might improve the sustainability and cost-effectiveness of schemes. It also indicates a need to improve the targeting of assistance, in particular, through the creation of specialist intermediaries in the private sector, preferably organised on a decentralised 'one-stop shop' basis. Experience demonstrates that these tend to make schemes more accessible and provide quicker appraisal and better delivery of SME projects by integrating direct aid and services.

Research, Technological Development and Innovation (RTDI): a strengthening of regional capacity

As noted in Chapter 1, the gap in RTDI between the most developed and the least developed regions is much wider than in income per head. The concentration of these activities in the more dynamic regions is a key aspect of the 'virtuous circle' as regards growth, competitiveness and employment. By contrast, less dynamic regions have a scientific and technological system which is still afflicted by structural problems, by low RTDI expenditure; excessive concentration on Government research rather than on stimulating private sector demand for innovation; inadequate resources to maintain the existing infrastructure; strong dependence on external (Community) sources of finance and excessive concentration of research activities in and around capital cities (Lisbon, Athens and Dublin).

According to an evaluation of 52 Objective 1 and 6 regions for the period 1994 to 1999, structural intervention seems to have had beneficial effects, especially on infrastructure. In Greece, for example, the effect was particularly significant in Crete, where universities and research centres were strengthened, and in Central Macedonia, through closer cooperation between local industry (chemicals and textiles) and Government research centres.

In broader terms, when assessing the effect of the Structural Funds, it is important to distinguish between different types of region, defined by their potential for innovation, as measured by the extent of cooperation between research institutions and businesses. In these terms, most Objective 1 regions are below the highest level and around a third can be described as 'technological deserts.' The performance of regions, however, is affected by the national features of the country in which they are located as well as by the growth rate and other factors. The position from which they start affects their development path, especially as regards the weakest regions. Regional

differences in performance indicate that the policies implemented have been successful in some cases (Lisbon and Ireland) and failed in others (Attiki), while yet other regions seem to have developed independently of their innovative capacity (in particular, tourist regions like the Canary islands) (Table 19).

At the same time, the effect in Objective 1 regions cannot be limited to the expansion of the research base, even if it is natural to focus on this because of the scale of the technology gap. In a number of Member States and regions, increased effort has been devoted to strengthening human capital by increasing the number of qualified researchers and giving greater importance to the establishment of networks between industry and universities, technology transfer and support for the demands of business.

Accordingly, in Ireland, after the mid-term review, increased attention was focused on company research and development as well as on the training of researchers. Co-financed measures have served to increase the amount of RTD in industry significantly, more than 400 firms being assisted, many of which had not undertaken RTD before, and 300 firms participating in research training. Increased industrial awareness, therefore, has helped to strengthen the relationship between public research and the private sector.

A further example is the CDTI (Centre for Industrial Technological Development), which was set up in Spain to support technological development in firms in Objective 1 regions by providing funds which are reimbursable if projects are successful. The 243 projects approved have involved investment in RTD of EUR 240 million and 1,622 full-time researchers. From the 108 projects completed, around 74% of the funds provided will be reimbursed.

Furthermore, effort still needs to be made to increase the efficiency with which funds are used and managed. The most innovative measures have frequently been insufficiently exploited because of the relative complexity of the procedures for implementing them, as well as, on occasion, difficulties in finding projects of sufficient quality to justify financing. This may have contributed to reducing the efficiency and effect of the Structural Funds. In addition, there is still inadequate follow-up and evaluation of projects. These problems apart, the implementation of genuinely innovative measures can be useful for addressing the difficulties noted above; but they need to be based on active partnership between public and private sectors and entail an appropriate division of responsibility between the Union, Member States and regions.[8]

RIS: a proactive innovation approach

The Commission has also helped to develop the innovative capacity of regions through a number of pilot actions. Since 1994, 32 regions have received funds under Article 10 of the ERDF for developing RIS projects (regional innovation strategies).[9] These involve private-public partnership and are intended as a response to the need of businesses, specifically SMEs, to innovate. Over the past 5 years, over 5000 SMEs have undergone technology audits and/or interviews. Hundreds of RDTI organisations have been consulted in the process of formulating strategies and implementing action plans.

RIS has produced significant results in the form of the creation of new regional partnerships and joint working methods, the strengthening of the innovative

Table 19 Objective 1 regions: relationship between technological potential and growth

	High 'institutional density' regions	Intermediate regions	'Technological deserts'
Converging regions	Ireland, Lisbon and Tago valley, Norte, Crete	Centro (P), Murcia, Castilla-La-Mancha, Cantabria, Andalucia, Flevoland	Algarve, Alentejo, Canarias, Extremadura
Intermediate regions	Central Macedonia, Hainaut, Castilla Y Leon, Northern Ireland	Corsica, Galicia , Sardegna, Puglia, Campania, Abruzzo	Southern Aegean, Calabria, Basilicata
Diverging regions	Merseyside, Attiki	Eastern Macedonia and Thrace,Epirus, Thessaly, Western Greece, Asturias	Highlands and Islands, Western Macedonia, Sterea Ellas, Peloponese, Northern Aegean, Ionian Islands, Sicilia, Molise

Source: CIRCA, Thematic evaluation on Research, technological development and innovation and Structural Funds in Objectives 1 and 6 regions, 1999

process and the launching of new innovation projects within firms. For example, in Castilla y Leon, almost 800 firms took part in a series of meetings to decide the type of RIS to be implemented. A total amount of EUR 447 million was committed for the first four years of implementation (1997 to 2000), increasing technological expenditure in the region from 0.8% of GDP in 1997 to 1% in 2000.

These initiatives has been succeeded by a new generation of projects, RIS+. The Commission has also developed a database (RINNO – Regional Innovation Observatory) to list and describe all public incentives for innovation in EU regions so as to encourage the transfer of innovation.

The information society: focus on telecommunication infrastructure

The potential of the Information Society for improving regional competitiveness and social cohesion is recognised by the Structural Funds. The rapid diffusion of information and telecommunication technologies opens up new development opportunities for the less advantaged regions, in particular, by facilitating a more efficient location of investment, given the differences in costs and access to markets. Regions can also benefit from these technologies by exploiting their own areas of specialisation and attracting new, higher valued-added activities. Moreover, since these can be located outside urban areas, they are a means of helping to achieve more balanced development across the EU.

The proportion of the Structural Funds devoted to investment in telecommunications is relatively small, at only around 2% of the total spending, 1.5% on infrastructure and 0.3% on stimulating the demand for services and applications.[10] The focus has, therefore, been on improving the basic system and narrowing disparities between peripheral regions and the rest of the Union through the digitalisation of networks and improving the quality of service.

Technological change and the liberalisation of telecommunication markets are driving factors towards a more coherent and integrated approach, aimed at furthering the development of the Information Society, especially as most investment in the sector is highly profitable. The Structural Funds need, therefore, to be focused on stimulating demand, developing new skills, raising the awareness of all those involved and implementing new high value-added applications while giving strategic priority to regional balance.[11]

RISI: a catalyst for regional development

Through its integrated approach, the RISI[12] has had a major effect in boosting the creation of specialised know-how and jobs in the regions. In Nord-Pas-de-Calais it has been a catalyst for the development of new skills and know-how, new activities and an enterprise culture. This is recognised by virtually all those involved in regional development and is reflected in the integration of various information technology measures (distance-learning and training, business development, health care, cultural activities, cyber-centres, public services, websites and transport) into the regional programmes.

Human resources: helping people into work and strengthening education and training systems

In the main countries with Objective 1 regions, structural policies have helped to strengthen active labour market measures, education and training systems and the links between training and job placement. The focus has been on integrating training with other types of action, giving increased importance to disadvantaged groups and targeting assistance on these, adjusting training to the needs of the labour market, adopting a 'customer-oriented' approach and improving the quality of training. Examples of actions include support for qualification and accreditation systems, developing technical teaching in upper secondary and higher education, improving infrastructure, providing continuing training to teachers and trainers and trying to reduce the rate of school drop-out.

Overall, the ESF has been a catalyst in modernising education and labour market policies in different countries. ESF co-funded activities, and the need to comply with the administrative requirements for receipt of funds, have helped to encourage the development of mechanisms for the better planning of policies, better coordination and improved relations between the institutions involved. As a result, a single, standard reference framework emerged between the fund-giving agencies and the regions, which facilitated the dissemination of techniques for implementing social and economic policy. Best practices identified by evaluators include greater transparency

in policy implementation, a strengthening of the capacity to manage at local and regional level and closer links between public policy and labour market needs.

In Spain, part of the added-value of the ESF was seen as providing support for the reform of technical secondary education (by, for example, developing work experience modules, introducing guidance and advice systems and taking responsibility for disadvantaged students). The rationale for ESF intervention and the scope of this remain relevant, given that a minority of students undertake technical secondary education and the amount of expenditure allocated to it is still relatively small.

In Portugal, the ESF helped improve the educational system by widening the range of paths which students could follow and by giving priority to quality. The training of teachers and trainers, both in primary and secondary education (49.3% of teachers) and at university level (grants for postgraduate courses) appears to be one of the major contributions of the programme. Widening the range of educational and training paths seems to have strengthened links between secondary education and labour market needs and improved career guidance arrangements in schools. Indeed, the support given to the training of 'medium level' technicians created an alternative to traditional general education and provided skills which were directly applicable on the labour market.

In Italy, the ESF has enabled the quality of technical streams to be improved, through the gradual introduction of training for teachers (50% of all vocational education teachers were covered), work experience modules (30% of the total length of courses) and new training methods and programmes.

Environment: a key role in developing water supply infrastructure

In the case of environmental measures, the effects of structural intervention in the cohesion countries and the Mezzogiorno need to be distinguished from those in other parts of the Union.

In the cohesion countries, the proportion of households connected to drinkable water supply and main drainage is still much lower than elsewhere in the EU. This not only reduces the quality of life of the people concerned, but also has a damaging effect on the potential for economic development, and on tourism, in particular.

Many regions in the Mediterranean suffer from a shortage of water, especially in the Mezzogiorno, where only 26% of the population is connected to drinkable water supply throughout the year. Main drainage is also inadequate, while in urban areas, environmental conditions are usually very poor, and not enough is done to make people more aware of the issues involved and of the need to manage the environment effectively.

These problems have adverse effects on the economy, as well as society, and conflict with the aim of pursuing a sustainable development path. Nevertheless, outside large cities, and except in a few areas of Spain and Ireland, the low level of industrial development means that toxic gas emissions tend to be less of a problem than generally in northern European countries.

In the north of the EU – in the new German Länder, in particular – the main problems stem from industrialisation, which has left a legacy of soil contamination, pollution and urban degradation. This had a damaging effect on the image of many regions with traditional industries and reduces their capacity to attract investment from outside. In rural areas – in the Netherlands and Ireland, in particular – however, agriculture is a major source of pollution.

During the period 1994 to 1999, environmental investment financed from the Structural Funds amounted to over EUR 9 billion, around 9% of the total funds for Objective 1. Over the same period, 20% of EIB loans went to environmental projects, totalling EUR 1 billion in the cohesion countries and almost EUR 3 billion elsewhere in the Union (mainly in the UK on water treatment projects).

In the cohesion countries, the Structural Funds played a major role in improving water supply and distribution systems as well as those for waste water treatment. In Greece, the number of urban areas connected to main drainage almost doubled between 1993 and 1999, increasing the population covered to over 70%. In Ireland, the proportion covered rose from 44% in 1991 to 80% in 1999. In Portugal, the population connected to drinkable water supply rose from 61% in 1989 to 95% in 1999 and that connected to main drainage from 55% in 1990 to 90% in 1999.

The Funds also helped to increase water supply in regions with a serious shortage. In Italy, for example, supply was expanded by over a third over the programming period.

In the case of the Cohesion Fund, *ex-post* evaluation of a representative sample of environmental projects generally indicated satisfactory results, though a number of problems were identified in respect of the management of water reserves. In particular, it appeared often to be difficult for small-scale projects to improve supply and become self-financing. The most significant environmental benefits were identified in respect of water supply projects, in particular those concerned with better management of reserves (projects in Sevilla and Lough Mask in Ireland, for example). In areas severely affected by drought, moreover, water loss was considerably reduced in a number of cases.

Beyond the immediate effects on the quality of life, especially of those living in the less developed parts of the Union, the investment has also given rise to wider benefits:

- significant progress in the extent of compliance with Community directives: for example, in 1999, Ireland attained the standards imposed by the directive on drinking water;
- a reduction in potential constraints on the development of agriculture, industry and tourism;
- growing awareness of the need for integrated environmental policies (Greece).

The areas in which it was possible to verify that improvements had been made – and much remains to be done – consist mainly of municipal waste treatment, the designation and management of protected natural areas, the implementation of specific means for controlling air pollution (Greece) and the degradation of rivers, from intensification of agricultural activity (Ireland) and from a low level of water flow in industrial areas (Portugal).

Objective 2: strategic progress, but a limited leverage effect from Community support

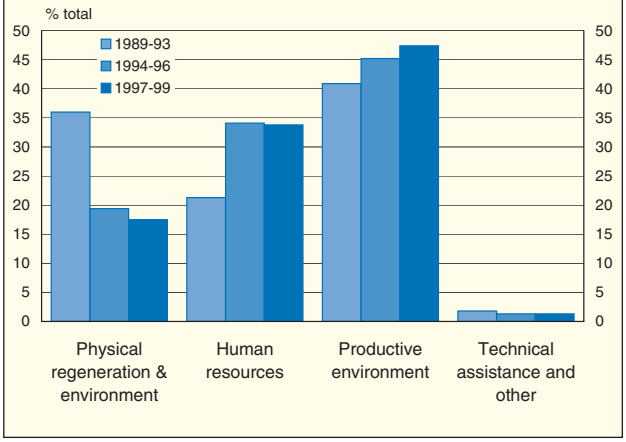
For Objective 2 regions, quantitative evaluation is more difficult, though it is possible, for specific measures, to identify the leverage effect of Community intervention. It is evident that the authorities in Member States responsible for structural policies regard eligibility for assistance from the Structural Funds as being much more important than simply the additional finance that it provides, since it opens the way for them to give national support to activities in the regions concerned and to obtain loans from the EIB. The volume of State regional aids is, therefore, larger than transfers from the Structural Funds, while the scale of EIB loans is expanding significantly.

The increase in regional partnerships made it possible to redirect Community funds towards productive investment and measures aimed directly at employment creation. Around half of structural assistance was spent directly or indirectly on support of the productive sector, and in particular SMEs (Graph 37).

During the last programming period (1997 to 1999), employment became more visible as an objective both in the formulation of policies and in the quantification of results. However, despite progress made, evaluation of the employment effects carried out in the Member States is still not fully comparable because of differences in coverage and methods of calculation as well as in the nature of the intervention itself. For example, the number of jobs created or maintained per million Euros invested varies approximately from 13 to 57 for the period 1994 to 1996 and from 17 to 68 for 1997 to 1999 (see Table A.42).

A number of estimations carried out, particularly in the UK SPDs, indicate that the real effects of programmes on employment are reduced significantly if account is taken of 'deadweight' effects (ie

37 Distribution of Structural Funds by broad target area in Objective 2 regions, 1989-93, 1994-96 and 1997-99



the effects which would have taken place even in the absence of intervention) and 'substitution' effects (when jobs created are at the expense of existing ones). This means, for example, that if these effects amount to 30%, three out of every ten Euros spent have no net effect on employment.

Less assistance went to infrastructure than in the past, while programmes to create alternative activities and to strengthen the productive environment in areas with serious problems of restructuring gave rise to uneven results, even if in some cases a real recovery in their economic potential seems to have occurred.

Technology transfer centres, adapted to the needs of local business, have been set up to disseminate know-how to SMEs, as in some French areas undergoing restructuring, such as Aquitaine, where these centres are likely to have long-term effects on their behaviour and capacity to adjust to change.

The environment is an increasing cause for concern in most regions, which has led to a wide range of protection and improvement measures, including cleaning up industrial wastelands but also, as in the case of the most innovative programmes (in Berlin, South Wales and East Midlands in the UK) changing production methods, the transfer of know-how, training and the adoption of clean technologies.

In addition to strategic advances in programming, Community intervention has had beneficial effects through the delivery system adopted, which, over the decade, progressively improved.[13] These include the creation of active and diversified partnership, the adoption of more rigorous means of selecting projects and the establishment of computerised monitoring systems. The effectiveness of programmes, however, was often limited, because, in particular, of the relative dispersion of the funds over small and fragmented areas.

Objective 3: improved targeting of the young and the long-term unemployed

The influence of Community action in helping young people, the long-term unemployed and those at risk of social exclusion to enter the labour market is limited by the relatively small scale of expenditure compared with national spending on employment measures. This means that national priorities have tended to determine the focus of programmes. In addition, the broad scope of activities covered by Objective 3 has made it difficult to concentrate Community support solely on targeted measures.

According to the evaluations carried out,[14] ESF measures had two kinds of effect, according to whether they were addressed to direct beneficiaries (ie people) or systems (changes in public intervention).

In the case of transfers to direct beneficiaries, the ESF helped to improve the employability of those in receipt, as measured by placement rates, or the proportion who subsequently found a job. In the case of other kinds of measure not directly targeted at employment, the indicators used include the proportion of participants obtaining a qualification or having a spell of work experience. Over the period 1994 to 1999, overall placement rates have increased, reflecting above all improved labour market conditions. Placement rates ranging from 30% to 80% are reported by evaluators, depending on the country, the target group and the type of measure. Where there was a causal link between participation in a co-financed measure and finding a job, 25-50% of placements seem to be directly attributable to the ESF.

The effectiveness of co-financed measures appears to increase when they are concentrated on groups with the greatest difficulty of finding employment. Participation in active labour market measures, therefore, seems significantly to raise the chances of the unemployed in older age groups (in the Netherlands and the UK), the long-term unemployed (in Ireland) and those with relatively few qualifications (in Italy) to obtain a job, while it appears to have only a marginal effect in respect of the young. The results also validated the programme guidelines on 'pathways to integration', which emphasise the importance of following a 'pathway' approach to helping people find employment. Measures combining training with advice, support and work experience, accordingly, seem to have more effect on employment than those not doing so. Support for employment appears to have a particularly large effect. Increasing the involvement of the most disadvantaged groups in ESF measures, therefore, could potentially both help to achieve greater social cohesion and improve the overall effectiveness of the Structural Funds.

In the UK, evaluation showed that the most efficient measures are employment subsidies and job-search

assistance. Analysis of those completing integrated programmes suggested that the largest net effect was on older men, whose chances of finding a job was increased by most. Although an integrated approach is more costly, it is justified by its greater effectiveness.

In the Netherlands, placement rates were generally high because of favourable labour market conditions. The net effect of ESF measures, however was generally relatively small, except for the most disadvantaged participants, for whom placement rates were highest. The net placement rate in respect of training programmes was 33% for the least qualified and 25% for those over 40, while for others it was virtually zero on average.

In Italy, the placement rate of those who had completed a training programme was 51% as against 28% for a control group who had not followed such a programme, a difference of 23 percentage points, which, moreover, was increased to 43 percentage points once the different characteristics of the two groups were taken into account. Indeed, participation in a training programme seems to be the most important factor determining a person's chances of finding employment (according to regression analysis), ahead of the sex of the person (men being more likely to find a job than women) and the level of education.

Targeting assistance on the most vulnerable groups has generally remained relatively limited in respect of Objective 3: beneficiary groups in ESF programmes were characterised by a high proportion of young, the relatively highly qualified and those unemployed for less than a year, with disproportionately more men than women.

Countries can be divided into two groups. The first consists of those with large areas covered by Objective 1, where Objective 3 programmes aimed at combating social exclusion accounted for less than 10% of total ESF funding. The second group includes other Member States, in which the figure was between 20% and 30%. In the first group, measures tended to be targeted on specific groups, such as people with disabilities and ethnic minorities, in the second, exclusion was more broadly defined and more general integration policies were funded.

Overall, the ESF continued mainly to finance training measures over the period 1994 to 1999. The programming, however, allowed for some diversification, to include employment support, enterprise training, counselling and job search guidance, and measures within the education system to ease the transition from education to employment.

Evaluators stressed the qualitative improvement in systems and the ESF contribution to innovative policies. Although small in financial terms, Objective 3 has helped diversify policies for tackling unemployment. In some Member States, innovation was an explicit objective of programmes, through developing partnerships. The Objective 3 evaluation for Finland, for example, found that the ESF helped develop the capacity for local and regional cooperation, target the groups who were hardest to reach and strengthen individualised approaches to the provision of support. In other countries, the ' pathway to employment' approach sought to generalise the principle of an integrated approach across all employment policies. Finally, it has been possible, by supporting specific groups, to include people who are usually excluded from the ambit of policy.

Objective 4: concentration on the training needs of SMEs

During the period 1994 to 1999, Objective 4 programmes, which were aimed at helping workers cope with industrial change, were altered significantly, as the underlying principles were re-interpreted and co-financed policies were modified.

Absorption problems, which were evident between 1994 and 1996, were overcome in the subsequent period, through a softening of the selection criteria and the application of less stringent requirements for co-financing in terms of the target group or type of training.

There are two groups targeted by Objective 4 measures, SMEs and workers at risk of job loss. Substantial efforts were made over the period to increase concentration on SMEs, but within these, training was mainly addressed to managers and highly-qualified workers, rather than those with the highest risk of becoming unemployed.

Evaluation of programmes has identified three types of effect – on firms, on employees and on training systems.

In the case of firms, the main effect was on changing attitudes towards continuing training and the kind of schemes carried out, in terms of the amount of training given, its quality, nature and relevance to industrial change as well as the number of employees covered.

In the case of employees, the effects were examined in terms of job improvement (or reduced risk of redundancy) and employability, as reflected in more and/or higher qualifications. At this stage, however, few evaluations have been completed because of the delay in the launch of Objective 4 and, consequently, the significant number of projects which are still ongoing. Those available suggest, in some cases, that firms benefited more than employees and, in others, that benefits were divided between greater competitiveness of firms and improved qualifications of some categories of employees.

The ESF also had an important effect in improving training systems, through structuring the continuing training offered, widening the provision of continuing training in SMEs and encouraging the development of better systems of labour market analysis

Although Objective 4 as such has not been included in the 2000 to 2006 period, several of the underlying principles have been incorporated as part of the priority given to lifelong learning in the new Objective 3, such as the inclusion of preventative measures in training programmes, the need to focus on employees at risk and mobilisation of SMEs.

Objective 5a and 5b: agricultural structures and rural development

Community policy on rural development emerged in the mid-1980s from two broad concerns – a desire, on the one hand, to reduce regional disparities and improve cohesion across the Union by supporting disadvantaged areas and, on the other, to limit the negative effects on rural areas of the reform of the CAP. The policy consisted mainly of an attempt to support the economic activities carried out in the weakest areas, which necessitated formulating a prior analysis of the factors underlying development and of the processes which need to be set in motion, so as to identify both the weaknesses and potential strengths of particular regions. Such an analysis is essential to the formulation of a policy which builds upon local potential.

The factors determining the economic growth of rural areas are both many and wide-ranging: the endowment of factors of production and the comparative advantage which these imply, the distance to main markets, the potential for economies of scale and agglomeration, the capacity for organisation and innovation, and the availability of support services and infrastructure. Both the measures adopted and the network of actors involved in their implementation need to be flexible enough to respond to local needs, since there is no guarantee that measures carried out according to a sectoral or individual logic will be coherent.

Unfortunately, regions sometimes opted for the easiest approach, pursuing measures which were insufficiently targeted or simply continuing with those already in place, failing to strengthen the means of coordinating the activities of the different entities involved or tailor measures to local conditions. A number of French regions reduced the application of certain measures on a territorial basis, and made them components of overall programmes.

In Objective 5b areas, unemployment has risen marginally since 1995, but it is still much lower than the EU average. There is some evidence of net employment growth in manufacturing industries dominated by SMEs, especially – but not only – those linked to the rural economy, as well as in other sectors. Significant diversification of economic activity away from agriculture is underway, which was the main objective of the policy.

Measures to improve infrastructure (eg sanitation, electrification, drinking water) and services (living conditions, above all) have generally been successful, though the recipients of support have typically been local authorities, for which the matching national contribution has not posed a difficulty. On the other hand, involving the private sector and private finance has proved more difficult, possibly because of the lack of a framework for potential investors, and, in some regions, a weak structure of local organisation (in terms of, for example, support networks or interaction between groups) or uncertain economic prospects. Rural areas, with sparse population and

access difficulties, can find it more difficult than cities to achieve a sufficient level of demand or offer the full range of services needed to compete at the European level.

Under-performance is, in some cases, explained by the measures adopted not being tailored to local needs or by the availability of more favourable financial support under other public programmes.[15] It is also clear that existing firms benefited more from intervention than newly-created ones.

Environmental considerations are included in regional development strategies to varying degrees, the scale of measures adopted being linked to the richness of the natural and physical heritage to protect and the seriousness of any environmental degradation suffered. Policies in this area, however, are complicated by the involvement of a range of interested parties concerned with differing policy priorities.

While there were few projects aimed at protecting flora and fauna or exploiting the natural heritage for tourism, there was a relatively large number of projects for managing household – and in come cases industrial – waste. In the case of tourism, financial initiatives have been dispersed and the evaluations suggest that in future they should be organised around centres and networks of activity.

Similarly, the work involved in the renovation of villages, an item included in most programmes, could be carried out in a more rational way, the heritage (in terms of buildings, culture and architecture) better exploited and the projects better integrated with tourist activities.

FIFG: restructuring the fishing sector

The Financial Instrument for Fisheries Guidance (FIFG), with a budget of EUR 2.6 billion over the period 1994 to 1999, was responsible for funding the following types of activity: reduction in the fishing fleet and its modernisation (50% of the budget), processing and marketing of products (25%), the development of fish farming (10%), the development of fishing ports (7%), product promotion (3%) and social and economic measures (subsidies for ceasing activity, support for early retirement) (5%). This expenditure was carried out in part under Objective 5a, but for the most part under Objective 1.

With the inclusion of the FIFG in the Structural Funds in 1994, economic and social cohesion became one of the major concerns of fisheries policy. Over the programming period, the cohesion countries were allocated 56% of all FIFG funds, 42% going to Spain, by far the largest recipient.

Substantial reductions in the fishing fleet were achieved, especially in Portugal and Spain (Table 20), Community support for these activities exceeding that for construction and modernisation by 60% and for construction alone by 2-2½ times (taking account of capacity as well as the number of ships).

The 'mixed' enterprises established with third countries enabled fishing capacity to be exported and jobs to be maintained or created in areas dependent on fishing (ADFs). By the end of 1998, 152 projects had been undertaken and these were directly responsible for 2,400 jobs being maintained or created and indirectly for another 3,000, mainly in Spain and Portugal (which accounted for 55% and 22% of the projects, respectively).

The processing of products was the driving force behind this and is the second most important area of FIFG intervention (accounting for a planned EUR 610 million). The modernisation of the industry has been supported by substantial FIFG investment in technologically innovative firms, improvement of sanitary conditions and the development of certain products. Moreover, there has been strong interest in measures of this kind from potential recipients of support and by the end of 1997, 12 of the 31 projects had been reprogrammed in this direction. FIFG support has helped to limit the employment losses associated with restructuring (see also section II.11 in the present report). By the end of 1997, after only 3 years of FIFG support, the projects financed had created 1,200 jobs in 6 Member States (Denmark, Germany, Spain, Ireland, Finland and the UK), 350 of these in Ireland,

Table 20 Effects of FIFG measures, 1994-99

	FIFG payments (EUR mn)	National payments (EUR mn)	No. of ships (projects)	Change in power of fleet (kW)
Adjustment (withdrawal)	481	267	4090	- 700,000
Construction	191	50	1820	+ 270,000
Modernisation	103	32	6830	-

220 in Northern Ireland and 50 in Scotland, and prevented another 360 from being lost (250 of these in Spain). By end-1998, 2,870 projects had been launched, 760 of them in Spain.

Although only 10% of the FIFG budget was allocated to fish farming over the Union as a whole, the figure was markedly higher in some countries (30% in Ireland, 24% in Greece). Initially, it proved difficult to interest many of the potential participants in such programmes, because of low fish prices and the strict environmental standards applied in project selection. Nevertheless, FIFG support has helped to develop a productive structure and to assist a recovery in employment in the sector, especially in the Objective 1 regions (see elsewhere in this report). By the end of 1998, 2,580 projects has been established, 550 of them in Spain and 150 in Greece.

The Structural Funds other than the FIFG – the ERDF and the ESF, in particular – financed port development projects and fishery research, as well as vocational training in Objective 1 regions.

Objective 6: improving accessibility and job creation

The accession of Finland and Sweden to the EU in 1995 significantly enlarged the land area and introduced a new type of sparsely populated region – the new Objective 6 – with extremely low population density, peripheral location, a general tendency for population to decline, small markets and long distances between towns and villages.

Evaluations show that the strategic choices made in the Objective 6 programmes strongly reflected Community priorities and that favourable results were achieved in terms of employment creation in particular, where the targets set were met in the regions concerned in both countries. These were to increase the number of jobs in private services and manufacturing by 17,500 in Finland and by 9,500 in Sweden.

Community Initiatives: institutional rather than economic value-added

The rationale for Community Initiatives, in general, is to tackle the problems or issues facing the EU as a whole, which can best be addressed through coordinated action between Member States. They are complementary to other programmes co-financed by the Structural Funds and negotiated on a regional or national basis. Between 1994 and 1999, there were 13 such Initiatives, with a Community contribution of nearly EUR 14 billion, representing around 9% of the entire Structural Funds allocation.

Community Initiatives cover a diverse range of themes, but have certain features in common. Four aspects, in particular, contribute to their added-value as compared with other Structural Funds measures:

- they encourage transnational, cross-border and interregional cooperation;
- they increase involvement of people on the ground (because of their 'bottom-up' approach);
- they stimulate innovation and the incorporation of the lessons learnt into regional, national and European policies;
- they help to diversify economic activity in areas affected by declining industries.

Transnational, cross-border and interregional cooperation

Transnational cooperation has been a feature of most Community Initiatives (Adapt, Employment, INTERREG II, Leader, Peace, Pesca, Regis II, SMEs), the aim being to promote the concept of national, regional, local and sectoral partners working together with their counterparts in other Member States. Under the Employment and Adapt Initiatives, for example, all projects involved participants from more than one Member State, while INTERREG entailed cooperation between regions in different countries.

While the benefits are difficult to quantify, those who have participated in transnational exchanges tend to acquire a greater appreciation of the European Union and of other societies and cultures. In institutional terms, added-value is evident in the sustainable European networks which have been established and which will continue the exchange of experience and transfer of best practice in the future, a form of cooperation which would be unlikely to develop to the same extent without Community support.

Leader, Pesca, Regis and SMEs emphasised the exchange of good practice and the establishment of

networks between Member States. Leader promoted networks and more formal transnational cooperation through its European Observatory. The SMEs Initiative had a fund of EUR 25 million to finance three types of transnational activity: tourism and the internet, international buyers' exhibitions and the exchange of experience and good practice under the Reacte project.

Cross-border cooperation is concerned with the development of local and regional economies which share common borders. INTERREG II has promoted economic and social cooperation between regions particularly disadvantaged because of their border location and has also helped the applicant countries to prepare for accession through cooperation programmes with EU regions, many of them involving the transfer of know-how. Cross-border cooperation was also a major feature of the special Peace programme, agreed in 1994 to support the peace process in Northern Ireland, through assisting projects operating across the border with the South, as well as those aimed at encouraging reconciliation between the two communities in the province.

The mid term evaluations of INTERREG II indicate different levels of cooperation:

- At its most basic, cross-border cooperation involves the enhancement of physical links, whether in the form of roads, rail, sea ports or airports. Such projects have predominated in INTERREG II programmes in the southern Member States (Spain and Portugal, in particular), but a lack of real involvement by local and regional authorities was noted in the evaluations.

- More intensive cooperation is evident in the development of networks and partnerships between organisations and institutions situated relatively close to each other, but which, since they are separated by a border, focus on other parts of their region or country instead. Mid-term evaluations of INTERREG II programmes between France, Belgium, the Netherlands and Germany show cooperation becoming more intensive between INTERREG I (1992 to 1995) and INTERREG II (1995 to 2001).

- The Scandinavian countries have a long history of cooperation and INTERREG II has built on this by forging even stronger links in certain areas of regional policy, while also extending programmes to include the applicant countries. The mid-term evaluation of INTERREG IIA between Denmark and Sweden (Öresund) identified the development of new networks, the promotion of new initiatives and improved partnership as major benefits from the programme. It concluded that it had created a 'neutral platform' for the development of cooperation between Copenhagen and Malmö. According to the evaluation of the INTERREG IIC Baltic Sea programme, cooperation with the accession countries has been hampered by the different funding mechanisms and procedures involved in INTERREG, PHARE and TACIS, and these issues need to be addressed in the 2000 to 2006 period.

On the basis of these evaluations, a Commission Report on INTERREG (January 2000) concluded that border regions, particularly in southern Europe often lack experience of cooperation. Centralised administrative bodies inadequate acquaintance with each other and a lack of mutual trust make the creation of lasting cross border institutions difficult, as in the case of efforts at cooperation generally. As a result, the involvement of local and regional entities and of the social partners remains limited, and in some cases projects have not been genuinely cross-border.

So far as human resource development is concerned, the EU-wide evaluations of Employment and Adapt found problems in the establishment of transnational partnership between projects, especially in the early phases. Problems identified included responding to different selection criteria and time scales in different Member States and the difficulty of finding partners with projects which had a sufficiently common subject matter to make working together meaningful. These findings, which are equally relevant for INTERREG and other Community Initiatives, underline the need for greater efforts to develop the basis for transnational and cross-border cooperation in the future.

Area-based or 'bottom-up' approach

Several of the Community Initiatives focus explicitly on local areas, in recognition of the fact that national or regional responses are sometimes too generalised to tackle the particular needs of a locality and that those who live and work there are often best placed to

develop appropriate measures. INTERREG II, Leader and Urban all followed this area-based approach, which led to capacity building, greater local autonomy and enhanced targeting of action, as well as a greater ability to concentrate on areas of particular need. The latter is a particularly valuable aspect of the Urban Initiative, which puts emphasis on involving residents in decisions on the design and development of programmes.

Both Urban and Leader also emphasise the need for integrated responses to area-based problems. Urban covers a wide range of projects combining renewal of obsolete infrastructure with measures designed to stimulate the economy and employment. Leader, whose acronym refers to 'links between actions for the development of the rural economy,' explicitly attempts to ensure that measures and projects, whether in the same sector or different sectors, are properly coordinated and integrated. At its most effective, this means adopting a comprehensive view of intervention, involving all the relevant aspects (economic, social, cultural and environmental) and endeavouring to implement as many multi-sectoral measures as possible.

Sometimes termed a 'bottom-up approach,' this is one of the most important aspects of the added value of the Community Initiatives and has been incorporated into mainstream programmes for the 2000 to 2006 period, in the increased emphasis on local development in the Structural Funds regulations. It has also been strengthened as a key feature of the four new Community Initiatives.

Innovation and mainstreaming

The support of innovative approaches, often developed on a transnational basis, was at the heart of several of the Community Initiatives (Adapt, Employment, Leader, SMEs), which encouraged the design of new approaches and the testing of their implementation. The EU-wide evaluation of Employment (2000) identified three different forms of innovation, process-oriented, goal-oriented and context-oriented, and found that all three were an aspect of most projects, with a particular emphasis on process-oriented innovation, while the development of new 'pathways to integration' was a theme running through many projects. The Adapt evaluation (2000) concluded that most projects were innovative 'to some degree,' but few were 'highly innovative.' Both evaluations recommended that future Initiatives should predefine areas and forms of innovation at the outset.

Linked to innovation is the concept of 'mainstreaming,' or the notion that the lessons learnt from the Community Initiatives should feed into regional, national or European policies as appropriate. This was a particular priority for the human resource Initiatives, Employment and Adapt, as well as Leader and some of the sectoral Community Initiatives. The evaluation of Employment identified two forms of mainstreaming:

- dissemination, where the project itself communicates the results through documentation, seminars, meetings and websites, usually to other projects;

- transfer, where the project engages with policy-makers at different levels to provide a means of feeding the results into regional, national and European policies.

The evaluation of Adapt found more evidence of horizontal than vertical mainstreaming, which is potentially more important but also more difficult to achieve. The strategies for bringing this about were generally weak in Member States, reflecting the complexity of the process of transferring experience gained through bottom-up action to national policy and underlining the need to develop appropriate mechanisms in the Initiatives and mainstream programmes in the 2000 to 2006 period.

Diversification

A group of Community Initiatives was aimed at supporting diversification in areas with an over-reliance on particular industries in decline, specifically, the defence industry, fishing, coal mining, the steel industry and textiles in the case of Konver, Pesca, Rechar II, Resider II and Retex, respectively, while Leader and Regis II had a similar aim. The timeframe for most of these Initiatives was limited in order to induce timely responses to the particular problems concerned.

More generally, many of the Community Initiatives have led to those living in areas where projects have been implemented developing a clearer understanding of the concept of 'Europe', as they see tangible

benefits from the projects supported and possibly come into contact with people in other parts of the EU. Through the Initiatives, they have, therefore, gained a greater awareness of the Structural Funds and of the meaning of economic and social cohesion. This contrasts with many mainstream measures supported by the Structural Funds, for which, according to the evaluations carried out, people usually do not know that the EU is a major source of finance.

While the Community Initiatives appear to have had significant positive effects in the 1994 to 1999 period, evaluations have highlighted a number of deficiencies. Chief among them is the large number of Initiatives with overlapping aims and separate systems of administration. From the standpoint of local, regional and national authorities, as well as the Commission, a clearer and more streamlined approach would enhance effectiveness.

Added-value of Community regional policy

The value added of Community involvement in regional development is not only related to the expenditure incurred as such. Benefits also stem from the method of implementation developed in the 1988 reform of the Structural Funds, which was revised in each subsequent programming period. Some aspects of the method were discussed in the first Cohesion Report and so the focus here is on key elements of the 1994 to 1999 period.

Programming: a more strategic approach but with over-complex procedures

Programming and management based on partnership are cornerstones of the 1988 reform of the Structural Funds. The extent to which administrative authorities have adapted to this has varied markedly between Objectives, countries and regions.

In Objective 1 regions, the programme-based approach adopted made it possible to learn from experience, which benefited those responsible for implementing measures on the ground.

Given the broad range of measures involved and administrative weaknesses – often a major factor behind lagging economic development – in many cases, the process proved to be difficult and failed to produce the expected results.

In Objective 2 and 5b areas, the methods were assimilated more quickly, although some authorities expressed concern about the burden imposed in relation to the resources allocated. In the case of Objective 3 and 4 measures, according to some Member States, these were more difficult to plan because the need for them depended on labour market conditions which were determined exogenously.

Finally, Objective 5a measures remained outside the programming process, because transfers continued to be based on reimbursing Member States for part of the expenditure incurred under existing support systems (apart from measures for the processing and marketing of agricultural, forestry and fishery products).

The multi-annual planning process encouraged participants to adopt a 'strategic' approach, resulting in better selection and greater coherence of co-financed projects. This change, however, has not yet produced all the results expected because there was often a failure to quantify programme objectives sufficiently and, therefore, some difficulty in evaluating them with any precision.

During the mid-term review of Objective 1 and 6 programmes, the Commission called for greater support of measures for increasing employment and there is concrete evidence of the willingness to address this issue: in Spain, Greece and, most especially, Italy, territorial employment pacts, for example, were integrated into general programmes.[16]

Nevertheless, it should also be noted that approval procedures for Community Support Frameworks, for programmes and their modification have often proved excessively onerous in administrative terms, particularly for smaller programmes, which is hard to justify from an efficiency perspective.

The simplification that has already been put into practice and the application of the new regulations should allow greater flexibility in implementing procedures.

Partnership: an important aspect but still limited in practice

Partnership is the key to the implementation of structural policies, the aim being to ensure that all those involved in the preparation, implementation and evaluation of Community measures cooperate

effectively. The application of the principle requires a clear definition of the respective tasks of each partner and the deployment of appropriate methods and instruments. The partnership approach has to balance the limits of coordination, the adoption of a global vision and the potential economies of scale realisable at a central level against the best understanding of local needs and the synergy and complementarity that can be achieved at a decentralised level.

The principle has been developed over the years in different ways:

- a range of vertical partnerships involving local and regional participants has been established to implement regional programmes;

- the social partners have been involved in human resource programmes and measures;

- cross-border cooperation programmes have enabled new structures of partnership to be established to the benefit of peripheral regions in the Union;

- innovative policies for local and rural development, the territorial employment pacts, in particular, have given rise to 'micro-partnerships', according a major role to those involved at the local level;

- other forms, such as informal, horizontal and transnational partnerships for exchanging experience between cities, regions and rural areas, often in different countries, have recently begun to be created.

These different forms of partnership have become a permanent means of exchanging information and experience.

The implementation of the Structural Funds, moreover, has pushed regions to define objectives and to use their financial resources effectively. According to a recent evaluation,[17] the introduction of the partnership approach has encouraged the priorities of all the participants as a whole to be considered and reconciled, so resulting in more coherent policies, as well as the identification of a set of objectives which is shared by all those involved.

The monitoring committees have proved to be effective means of agreeing on how to tackle problems and how best to modify programmes in this regard, even in Member States where decentralisation is least developed, because a pragmatic approach has enabled regional actors to be involved in the monitoring process.

The decentralisation of responsibility for implementation, however, has highlighted the technical and managerial limitations of regional and local authorities. In some Member States, there were serious delays in undertaking programmes managed at the regional level as compared with those managed centrally, necessitating significant budget reallocations. In this regard, Member States have not made sufficient use of the technical assistance, which should have accompanied decentralisation and enabled some of the problems encountered to be resolved.

In spite of Commission efforts, the participation of the social partners in the planning and monitoring of programmes was often unsatisfactory. They were not well represented on monitoring committees (except in respect of Objectives 3 and 4) and were not kept fully informed of developments.

Finally, experience indicates that there has been some confusion of roles and responsibilities in the organisation of tasks in cases where programmes were jointly managed, which suggests that responsibility needs to be defined in a more efficient and transparent way.

Management and financial flows: complex and often poorly transparent systems

Financial management systems were tried out during the first programming period and were then reformed with the aim of increasing flexibility.

Because of the cooperation between the Member States and the Commission and the vigilence of the Court of Auditors, there were relatively few cases of irregularity and fraud.

Nevertheless, the financial system governing the disbursement of Community funds in the Member States is often complex and varies between the different sources of funding. As a result, there were often lengthy delays in making payments in respect of many programmes, creating uncertainty among

recipients and so reducing their economic impact. Indeed, even though delays may not actually have occured, the possibility was enough to make it difficult for those concerned to plan ahead.

The mid-term evaluations emphasised that the financial system in place made it difficult to apply the co-financing principle in a transparent way and that most Member States regarded Community support as reimbursement of expenditure already incurred.

The improvement of financial arrangements is one of the keys to improving the effectiveness of Community action.

Monitoring and evaluation: significant advances need to be consolidated

Two main factors stimulated the development of monitoring and evaluation from 1988 on. On the one hand, the new regulations encouraged Member States to do more in this respect, while, on the other, because of budgetary constraints, they became increasingly concerned to ensure the efficient implementation of programmes.

Since 1994, a series of measures has been introduced by the Commission to improve monitoring and evaluation procedures. In the first place, data on social and economic disparities between regions have been improved to make it easier to analyse progress in reducing them. Secondly, specialised evaluation units were established in the Commission to coordinate evaluation activities. Thirdly, the MEANS programme (Methods for evaluating action of a structural nature) was launched with the aim of creating a 'culture of evaluation' across the Union and facilitating exchange of experience between Member States.

For their part, Member States – in the south of the Union as well as the north – have progressively developed more effective monitoring systems, which, in the best cases, were based on quantified objectives, well-defined indicators and better information. National authorities, therefore, have increasingly established a more effective structure of evaluation with coherent guidelines, while regional authorities have in many cases set up their own evaluation systems in response.

While the benefits of an effective monitoring and evaluation system are widely recognised – for improving policy-making and transparency as well as for their own sake – the systems in place are not used in practice as fully and effectively as they might be. They are often not comprehensive and, in many cases, they are limited to financial indicators, which means that the evaluations carried out cannot be fully integrated into the decision-making process.

Leverage effects: an unbalanced mix of loans and subsidies

Support from the Structural Funds has been crucial to economic development in Member States with relatively limited budgets. It increased the level of investment possible and so gave an added impetus to growth, which in turn enabled private capital to be mobilised. Over the 1994 to 1999 period, this leverage effect was reinforced through a strengthening of the link between structural transfers and loans. In Greece, for example, around 29% of the finance for the overall investment undertaken came from private capital, though the figure was lower in many other parts of the Union. To maximise the investment achieved in the future will require loans and transfers to be combined in a way which is both judicious and manages public financial resources effectively.

Outlook for the new programming period, 2000-2006

The new programming period opens up new challenges. It should be possible to achieve renewed progress towards convergence and higher rates of growth in the less prosperous parts of the Union because of a more favourable outlook for the EU economy as a whole and a more efficient combination of Member State and Community structural policies. This will not happen to the fullest extent possible unless investment is allocated to priority areas where the impact is greatest. Moreover, the effectiveness of intervention is heavily dependent on respecting the implementation and management conditions which have been jointly established with the Member States.

The two main conclusions to be drawn from model simulations of economic developments over the new

Convergence, cohesion and growth: impact of CSFs in 2000-2006

As for the preceding period, the macroeconomic effects of the Community Support Frameworks have been assessed using several different econometric models (Table A.43). The simulations[18] were carried out for total (public) expenditure (Structural Funds plus national co-financing), which are assumed to cease after 2006 in order to identify the supply-side effects on the recipient economies .

Using the Hermin model, the estimated effect is to increase real GDP in 2006 by around 6% in Greece and Portugal and by 2.4% in Spain as compared with the situation without intervention. The effect is relatively modest in Ireland (1.8%), where the Structural Funds only account for under 10% of total public expenditure.

The CSF will increase investment by much more, especially in Portugal (by 23%) and Greece (14%), which will add to effective demand via multiplier effects and, over time, also tend to increase productivity, through improved infrastructure and human capital as well as the use of more modern, and therefore efficient, plant and equipment. The effect on employment is likely to be significant, but will tend to decline after 2006, because of higher productivity.

Inflation is likely to be increased to varying extents. In Greece, average prices are estimated to be pushed up by most (4%), though the inflation rate will then decline. In Ireland, the investment foreseen in the National Development Plan could raise inflation at the beginning of the period because of very tight labour market conditions and pressure on the construction industry. The CSF, however, adds very little to the pressure on prices and any effects are unlikely to extend beyond 2006.

In general, the QUEST II model suggests that the effects will be more modest in Spain, Ireland, Portugal and Greece, especially on GDP, than estimated by other models, largely because of the inclusion of 'agents' expectations', or the effect of anticipatory behaviour, which tends to lead to interest rates and the exchange rate adjusting to offset some of the expansion in investment.

The principal effect is higher growth, which is estimated to continue beyond the programming period as a result of investment strengthening the supply-side, or the productive potential of the economy. The added growth in GDP averages between 1-1.5% a year for Greece and Portugal, 0.8% for Spain and 0.5% for Ireland. The relatively small multiplier in Ireland and Portugal reflects the openness of the two economies, which means that a large part of the increased demand goes to imports, as well as the assumed 'crowding-out' effects on the private sector of higher public investment.

Significant effects are also estimated for other large Member States which are major recipients of structural assistance. The first analysis of the macroeconomic effects in the new German Länder, using the Hermin model, suggests an increase in GDP of 4% during the programming period, and 1.5% after, and added investment of around 6%. In addition, productivity is likely to be boosted in manufacturing.

In the Mezzogiorno, the second largest recipient of Structural Funds assistance, models developed by the Italian authorities suggest growth above the EU average by 2004, while other models estimate that this is likely only by the end of the programming period, and then only if there were radical changes in economic behaviour and the efficiency of public investment.

programming period are, first, that structural policies can create the conditions for higher economic growth without increased inflation and, second, that through this, they can increase employment and, therefore, reduce structural unemployment (see Box).

Coherence of national and Community priorities

Strategic guidelines[19] for the 2000 to 2006 period have been adopted to achieve an optimal and more targeted use of Community resources. Priorities and strategic objectives have been established by the Member States after consultation with the Commission.

Ex-ante evaluations initiated by Member States helped, in most cases, improve the coherence and quality of plans, notably by relating priorities and objectives more closely to the analysis of social and economic problems. The Commission, moreover, encouraged Member States to concentrate more resources on priorities and high-impact measures, making Community intervention more visible and efficient.

Under Objective 1, the Community guidelines imply a significant adaptation of regional development strategies over the programming period.

Transport: towards a better balance

Transport is a major priority in the new programming period (accounting for around 19% of the Structural Funds allocation – Table A.36 in Annex). The balance between different modes of transport has been shifted towards rail from road. For example, under the CSF in Portugal, the number of passengers travelling by rail is planned to increase by 600,000 in 7 years (from 3.8 to 4.4 million a year), as well as the metro link between Lisbon and the airport being completed. The plan envisages a doubling of investment in rail in terms of Euros per head (from EUR 193.6 in 1996 to EUR 373 in 2006), while spending on road improvements will remain unchanged.

Under the CSF in Greece, at least 650 km of double-track railway lines are planned to be electrified in order to complete the trans-European Network by 2006 and new metro lines will be constructed in Thessaloniki and Athens, signalling a shift towards more environmentally friendly forms of transport. In due course, 26% of journeys in Athens will be made by metro.

In Objective 1 regions in Spain, new high-speed train routes are planned, doubling the length of track from 623 km to 1140 km in 2006.

In Germany, very few infrastructure projects were financed in the previous period, other than those aimed at supporting productive activity, such as roads linking industrial sites or ports. Over the 2000 to 2006 period, in contrast, investment of EUR 1.5 billion is planned for German Objective 1 regions, around a third on rail projects.

Upgrading road and motorway networks, nevertheless, remains a priority in the cohesion countries, given their present state and the need to make up deficiencies in respect of the trans-European networks.

The need to ensure sustainable development was already a priority during the previous programming period, all infrastructure and transport projects being subject to environmental assessment. The orientation of the CSF for the present period makes clear that this will be continued, as reflected in the choice of strategic objectives, such as limiting cross-city traffic, the extension of public transport and the construction of high-speed rail links.

Reduction in direct support for firms

A marked reduction is planned in the share of transfers going to direct support of firms, particularly in the cohesion countries and Italy, as a result of stricter regulation of state aids and the recognition of the significance of deadweight losses from these. Ireland is the most extreme case, with the Structural Funds providing no direct aid to industry (except for research and innovation programmes). In Italy, the national aid scheme to support industry (Law 488) has been revised to tailor assistance better to the specific sectoral and territorial features of firms in the Mezzogiorno.

Increased efforts to promote innovation and human capital

Total funds allocated to research, technological development and innovation (RTDI) are planned to remain unchanged, at around 3.5% of total Structural Funds expenditure, except in Italy and Ireland, where the shares have risen to 8% and 10%, respectively. This, however, conceals a relative decline in investment in infrastructure and research projects and a shift towards a more open approach to innovation and collaboration between research institutes and industry.

In the Member States where the RTDI shortfall is greatest, a shift in the orientation of policy is most evident, in the form of:

- improved links between RTD and the needs of firms, through measures to transfer innovation and technology; this could lead, for example, to an increase in private RTD in Spain (to 45% of the total in 2006 as against 35% in 2000);

- an increase of employment in the RTD sectors, of 40% in Greece, and to 0.5% of the total in Portugal and Objective 1 regions in Spain;

- increased involvement in international networks (a 50% increase in scientific publications with Portuguese involvement, for example).

The Information Society: a strategic reorientation towards demand

Investment in telecommunications will be substantially reduced in the new programming period, due to privatisation and competition between providers. Most effort is aimed at services and applications in support of SMEs (e-commerce) and the public sector (health and education), which represents a significant change in regional policy. Accordingly, the Structural Funds are making a major contribution to the development of an e-Europe. Support of telecommunication infrastructure is generally limited to the most isolated areas, where the return does not justify private investment. Member States have set relatively ambitious targets under their CSFs, including:

- providing Internet access for schools (the proportion of schools in Greece connected to the Internet increasing from 5% in 2000 to 100% in 2006) and the population at large (the proportion connected in Spain being planned to rise from 5% in 1998 to 25% in 2006);

- a wider spread of electronic commerce in SMEs (to 15% of SMEs in Greece in 2006 from 1% in 2000).

Human resources: link to the European Employment Strategy

Investment in human resources plays a strategic role in Community policies for economic and social cohesion, accounting for 30% of the Structural Funds in the new programming period, the same as in the previous one. The objectives are twofold: to help realise the human resource potential of the Union and so contribute to economic development in Member States and regions and to allow everyone equal access to the labour market. The European Employment Strategy has encouraged policies on employment, the labour market and the fight against social exclusion to be integrated and the new programmes have a similar aim together with that of promoting policy convergence across the EU.

Over the next 6 years, the ESF will provide around EUR 60 billion to support the European Employment Strategy (EES), in addition to Member States' own financing of labour market policies, a contribution of some 9% to total expenditure in this area. Other Structural Funds will also play an important role in supporting the EES, but the ESF is the main financial means at the EU level of pursuing the strategy.

The programmes for 2000 to 2006 reveal a strong link between the ESF and the EES, most obviously in the greater focus on the preventive action, in the form of support for those most at risk of becoming long-term unemployed. In addition, future ESF programmes will have a firmer commitment to gender equality, social inclusion and wider access to information and communication technologies to combat what might be termed 'the digital divide'. In most Member States, the ESF has been extended beyond a narrow focus on training to wider support of measures designed to improve the effectiveness and responsiveness of labour market policy. For some countries, the ESF 'policy frame of reference'[20] has also provided a useful basis for securing a coherent approach to the various policies under the three Objectives of the Structural Funds and to the various groups involved.

A preliminary review of the ESF support for Objectives 1 and 3[21] under the 4 pillars of the EES indicates that between 2000 and 2006:

- around 60% of funds will go towards improving the employability of the work force, to co-financing active labour market policies and measures to promote social inclusion and support lifelong learning. Objective 1 regions, in particular, will use ESF support to modernise their public employment services to improve the functioning of labour markets;

- some 12% of funds will go to support the development of entrepreneurial skills, helping business start-ups and establishing networks of entrepreneurs to help maximise the benefits of support;

- around 20% of funds will go to supporting adaptability in the workplace, much of it to promoting continuing training of the work force. There will also be a sharper focus on the specific needs of SMEs than previously;

- around 6% of funds will go to supporting equal opportunities for women, the fourth pillar of the EES, much of it to helping the development of effective child-care measures. ESF support for equal opportunities, however, will far exceed this figure.

Greater integration of environmental aspects

The environment is increasingly recognised as a key aspect of cohesion policy. In line with the Amsterdam Treaty, the Commission guidelines emphasise the importance of incorporating the concept of sustainable development in the new structural programmes. The new regulation explicitly includes a requirement to carry out an environmental evaluation, which includes an environmental impact assessment, compliance with Community legislation on the environment and the involvement of environmental authorities in the preparation and implementation of programmes.

Member States and regions are becoming increasingly proactive in both the conception and implementation of environmental aspects in regional development programmes, including carrying out *ex-ante* evaluations of the situation in eligible regions and of the impact of proposed measures and establishing appropriate criteria for follow-up.

More generally, the Structural Funds seem increasingly to provide a favourable means of implementing EU environmental policy. For example, respect of the HABITAT directives, concerning the protection of natural sites, was set as an essential condition for accepting plans and programmes.

Taking account of equal opportunities

Securing equality of opportunity between men and women has been given new emphasis by its inclusion as one of the Community tasks set out in the Treaty of Amsterdam. The regulations for the Structural Funds for 2000 to 2006 reflect this by stipulating that there should be a greater consideration of equal opportunities in all policies and at all stages.

In the 1994 to 1999 period, equal opportunities were mostly addressed through pilot projects or ring-fenced allocations for positive action and, in general, they were viewed as an issue for the ESF alone.

The 1999 regulation explicitly requires *ex-ante* evaluation of this dimension in all plans and Single Programming Documents (SPDs). While the appraisals carried out by Member States were variable in quality, the fact that they were carried out at all represents an important first step. The evaluations undertaken in Finland, Germany and Wales are examples of good practice, while Italy has developed an innovative approach to examining direct and indirect benefits on men and women.

Contribution of EAGGF Guarantee to rural development policy

Twenty-seven different measures were co-financed by the EAGGF Guarantee as part of its contribution to rural development policy. On the basis of the programmes approved up to now by the Commission, the allocation from this fund go, in the main, to measures which are directly linked to the agricultural sector (see Table A.44). Less than 7% of allocations go on measures for economic diversification outside agriculture.

Improving efficiency and the evolution of instruments

The new regulations impose a programming system organised by Objective as before, but in a simplified and more flexible form, with stricter controls on additionality, more inclusive and responsible partnership and greater focus upon results.

Simplified and decentralised programming

In the new programming period, negotiations have already taken place and, in most cases, agreement reached on the CSF, SPDs and Operational Programmes (OPs) for Objectives 1, 2 and 3, the guidelines have been adopted and the Community Initiatives (INTERREG III, Urban II, Equal, Leader II) and the new generation of innovative measures have been launched.[22]

In line with the new rules, the number of programmes has been greatly reduced, to around 400, from 1134 in the previous period (including 524 Community Initiatives). In the few cases – mainly in Spain – where programmes were separated by Fund, the authorities established an integrated multi-fund OP or SPD, allowing positive synergy between the measures envisaged.

Once the operational programmes have been approved by the Commission, Member States will prepare complementary information, containing details of the measures, while leaving scope for more flexible management without infringing the regulations laid

down, notably in terms of quantifiable objectives and indicators for monitoring.

Additionality: a means of increasing effectiveness

Since 1989, the application of the additionality principle commits Member States to maintaining at least the same level of public expenditure on structural measures – excluding the EU contribution (Table A.45). The principle was defined in 1993 and the 1999 reform simplified the procedures for verification. There are, however, exceptions, such as economic circumstances or exceptionally high expenditure in the past, which allow Member State to reduce expenditure.

Additionality is assessed in respect of expenditure under each Objective. For the 2000 to 2006 period, the procedure has been simplified in two ways:

- for Objectives 2 and 3, additionality is jointly verified on the basis of active labour market expenditure across each Member States as a whole;

- verification is carried out only three times, before adoption of programmes (*ex-ante*), at the mid-point, and towards the end of the programming period.

Towards inclusive and responsible partnership

Partnership has progressively been widened in successive programming periods, from the inclusion of regional and local authorities in 1989 to 1993, and of the social partners in 1994 to 1999, to the planned inclusion of representatives from various groups (such as non-governmental organisation, or the equal opportunities movement) in 2000 to 2006.

This widening reflects the efficiency gains achieved in the last two programming periods (Table 21).

The preparation of the new CSF highlighted the increased awareness of the roles of the various participants in the programming phase. In Italy, the authorities set up a broad consultative framework, bringing together local representatives (regional, provincial, communal), central Government Ministers (for employment, agriculture, environment and equal opportunities) and representatives from employers' organisations, trade unions and non-governmental organisations. This led to the production of interim reports, which formed the basis of the development plan for the Mezzogiorno. Such a broad structure of partnership and the need to consult with all members can, however, give rise to delays in the decision-making process.

In the 2000 to 2006 period, responsibility for management has been determined according to the principles of decentralisation and subsidiarity. The counterpart to this is the need to improve transparency, especially for financial management, control of specific measures and project selection procedures. It is important to establish new procedures for sharing information to ensure that each participant can operate effectively and exercise their responsibility. In particular:

- responsibilities need to be defined and divided between those involved in the programming, those managing the measures and those paying for them;

- information networks need to be set up to collect and transmit data for monitoring;

- the responsibility of all those involved needs to be increased to improve transparency of financial flows;

Table 21 Programming of Structural Funds: the experience

Process	Phase 1 (1989-93)	Phase 2 (1994-99)	Phase 3 (2000-06)
Preparation of plans	Exclusive	Reactive	Interactive
Strategic guidance	Passive	Embryonic	More active
Management	Split by Fund and organisation	Integration/ fragmentation	Responsabilities/ transparency
Partnership	Exclusive	Semi-exclusive	Inclusive
Monitoring and evaluation	Non-systematic	Systematic	Integral

- scope for initiative needs to be widened to improve operational efficiency and simplify procedures.

Partnership and decentralisation (the corollary of the former) are the basic principles underlying a new approach to structural policy, which is more in line with the need for a new form of *governance*, in place of traditional management, to conceive and implement the programmes in question.

Management focusing on results

The new regulations emphasise the importance of monitoring and evaluation to increase the effectiveness of structural policies.

The aim of the Commission and the Member States is to ensure effective monitoring by defining quantitative objectives and appropriate indicators in respect of approved programmes. The indicators are intended to measure the impact of the programme, both directly (the infrastructure constructed, the amount of training provided and so on) and indirectly (the gains in efficiency, for example) as well as the wider economic and social effects (such as on employment).[23] Electronic information systems for the collection and processing of the relevant data are increasingly being established in Member States.

The new regulations provide for financial management procedures which are simpler, but more rigorous, with Member States taking primary responsibility for controlling expenditure, a task they will need to perform more strictly than before. In particular, a provision has been introduced for suspending a project automatically if the funds allocated are not absorbed within two years.

Regular and reliable evaluation of intervention can be regarded as evidence of transparency and efficiency. Substantial progress has been made in this regard, especially in Member States where there was not much of an evaluation culture. On the one hand, the managing authorities have an essential responsibility for organising intermediate evaluations and the (proactive) use of the results. On the other, the Commission is responsible for *ex-post* evaluations, identifying the results achieved and drawing lessons for the future.

The introduction of the 'performance reserve' adds a new dimension to evaluation by giving an incentive to achieve the objectives set beforehand for each measure. Even though the Commission's more demanding proposal was not accepted (to allocate 10% of funds to the reserve), Member States will, nevertheless, have to assign 4% of total Community funds (around EUR 5 billion) to programmes according to certain criteria, linked to the efficiency of financial management and their effectiveness. In implementing this provision, however, account will need to be taken of administrative and institutional features of Member States.

The Commission has played an important role in establishing these new arrangements, through discussions and by defining the methodological guidelines. Though demanding and difficult to implement, a system of management by results has become necessary to improve the transparency and effectiveness of policy.

Preparing for enlargement: pre-accession support

Up until 1999, Community intervention in candidate countries was financed by the PHARE programme, in the case of the ten countries in Central Europe, and by the funds allocated to southern and eastern Mediterranean countries, in the case of Cyprus and Malta. Since the beginning of 2000, the funds for the former group have been increased through the creation of two new instruments, the Instrument for Structural Policies for Pre-Accession (ISPA), in preparation for the Cohesion Fund, and the Special Accession Programme for Agriculture and Rural Development (SAPARD).

In 2000-2006, PHARE is providing some EUR 11 billion of co-financing support for institution-building, through 'twinning' and technical assistance, as well as for investment to help applicant countries in their efforts:

- to strengthen their public administration and institutions so that they can function effectively inside the Union;

- to promote convergence with the European Community's extensive legislation and reduce the need for transition periods;

- to further economic and social cohesion.

The 'PHARE 2000 Review-Strengthening preparations for Membership', approved by the Commission in October, 2000,[24] assessed whether PHARE's guidelines, as introduced in 1997, and updated in 1999, still meet candidate countries' needs and whether any further refinements are required.

It takes into account the new context arising from the adoption of Agenda 2000 at the Berlin European Council, including the increase in the PHARE budget, and the progress achieved in the accession negotiations with the ten countries which are eligible for PHARE assistance from 2000.

The review concluded that PHARE's current guidelines continue to address the main needs of the applicant countries. Accession-led programming of PHARE should continue, based on Accession Partnerships, National programmes for the adoption of the *acquis*, regular reports and the negotiations process. PHARE's primary objective must remain institution building and promoting convergence with the Community's *acquis communautaire*, directly helping the countries to comply with the political, economic and *acquis communautaire* criteria set by the Copenhagen Council in 1993.

But the review identified two challenges for PHARE in the period 2000-2006:

1) Delivering on the past reforms. There should be a period of relative stability to consolidate the past reforms and to ensure their full benefit is obtained. In addition, some of the 1997 reforms must be refined to respond to the constructive criticisms of the Court of Auditors and European Parliament. Moreover, efforts to increase the absorption capacity in the applicant countries must be further emphasised.

2) Moving to the Structural Funds. The aim is to devote about half the investment element of PHARE within national programmes to this objective, which is to:

PHARE's history – 1989 to 2000

The PHARE programme is one of the three pre-accession instruments financed by the European Communities to assist the applicant countries of Central Europe in their preparation for joining the European Union.

The PHARE programme has been providing support to the countries of Central Europe since 1989, helping them through a period of massive economic restructuring and political change. Following the 1993 Copenhagen Council's invitation to Central European countries to apply for membership, PHARE support was reoriented and support for infrastructure investment was expanded markedly.

However, PHARE's 'pre-accession' focus was put in place only in 1997 in response to the Luxembourg European Council's launching of the present enlargement process. PHARE funds now focus entirely on the pre-accession priorities highlighted in each country's Accession Partnership. Civil servants from Member States are now seconded through 'twinning' to assist their counterparts in preparing for accession. In addition, PHARE's management was integrated into the structure of government in applicant countries through the creation of the National Fund and a small number of implementing agencies.

These basic orientations were adjusted in 1999 to reflect the launch of SAPARD for agriculture and rural development and of ISPA for transport and environment infrastructure. The principal adjustment was to redirect PHARE's funds to adressing the problem of economic and social cohesion.

a) prepare for the implementation of Structural Funds in candidate countries by putting in place the necessary administrative and budgetary structures;

b) allow these countries to benefit from a first generation of integrated regional development programmes of an Objective 1 type, so contributing to their economic and social cohesion.

The PHARE-INTERREG programme

Since 1995, following a European Parliament initiative, PHARE, jointly with INTERREG, has also

financed cooperation programmes between border regions of the EU and the candidate countries, and between the candidate countries themselves, after the revision of the PHARE-CBC regulation in 1998.

On the basis of the new PHARE CBC Regulation and the new INTERREG guidelines, a Single Programming Document, covering regions on both sides of the border and including joint cooperation priorities for the 2000-2006 period has been prepared for each eligible border.

Further improvements towards better aligning PHARE-CBC and INTERREG were included in the above mentioned Communication, notably to allow PHARE-CBC to support projects similar in size to those under INTERREG (through a new 'measure-by-measure' approach to finance projects between EUR 50,000 and EUR 2 million from 2001).

SAPARD

SAPARD, with an annual budget of EUR 520 million, finances structural measures for agriculture, the processing and marketing of products and rural development (Table A.46).

By decentralising management, this programme will give the future Members States an opportunity to gain valuable experience in applying procedures for managing rural development programmes. On a broader front, the investment made at present will build skills which will be readily transferable to other Structural Fund activities and to other areas of Community policy. It should, however, be emphasised that SAPARD can only make a limited contribution to meeting the challenges in rural areas.

ISPA

ISPA, with a budget of EUR 1,040 million a year, is aimed at enabling the candidate countries to meet Community environmental standards and at the construction of trans-European transport networks. Priority has been given, in the case of the environment, to drinking water supply, waste water treatment, waste management and reducing air pollution, in the case of transport, to projects which are environmentally-friendly and of wider Community interest, which accord with the priorities established by the Ministers' Conferences in Helsinki and Crete.

Budgetary impact on cohesion

The area of intervention of these three pre-accession instruments is similar to that of the Structural and Cohesion Funds. In particular, the funds allocated under PHARE to 'institution-building' go to a special programme for preparing countries for managing the Structural Funds, while ISPA and SAPARD perform the same task in respect of the Cohesion Fund and the structural part of the EAGGF. The projects financed are similar to those eligible for support from the Structural and Cohesion Funds in Member States.

Table 22 Annual breakdown of pre-accession funding, 2000-2006

EUR mn at 1999 prices

	PHARE	SAPARD	ISPA		Total	
			Minimum	Maximum	Minimum	Maximum
Bulgaria	100.0	52.1	83.2	124.8	235.3	276.9
Czech Rep.	79.0	22.1	57.2	83.2	158.3	184.3
Estonia	24.0	12.1	20.8	36.4	56.9	72.5
Hungary	96.0	38.1	72.8	104.0	206.9	238.1
Latvia	30.0	21.8	36.4	57.2	88.2	109.0
Lithuania	42.0	29.8	41.6	62.4	113.4	134.2
Poland	398.0	168.7	312.0	384.8	878.7	951.5
Romania	242.0	150.6	208.0	270.4	600.6	663.0
Slovakia	49.0	18.3	36.4	57.2	103.7	124.5
Slovenia	25.0	6.3	10.4	20.8	41.7	52.1
Total	1085.0	520.0	1040.0		2645.0	

PHARE total annual budget is EUR 1,577 million
Source: European Commission

The amounts committed represent a significant proportion of the current investment by public authorities in the countries concerned (Table 22).

Cyprus and Malta

Cyprus and Malta have been associated with the Union since 1972-73 and have been in receipt of Community assistance under four successive financial agreements. These were replaced in December 1999 by a single pre-accession instrument with a budget of EUR 95 million for the period 2000 to 2004.

In the current phase of pre-accession, more aid has been made available than on previous such occasions, with the aim of accelerating the adoption of the *acquis communautaire*. Despite being small, the funds committed are a means of helping countries prepare for the implementation of cohesion policies, required to reduce the significant regional disparities which exist.

1 Commission Decision of 1st July 1999.
2 Eligibility criteria defined by Article 4 of the General Regulation 1260/99.
3 Commission Communication to the Member States on regional policy and competition policy: strengthening their concentration and their coherence, OJEC C90 26.03.98.
4 European Commission, 'Structural and Cohesion Funds, Guidelines for programmes in the period 2000-2006', COM (1999) 344 final
5 European Commission, Report on the Cohesion Fund (1999).
6 London School of Economics, The socio-economic impact of projects financed by the Cohesion Fund, 1999.
7 Over a third of SMEs in the Union (around 18 million) are located in areas eligible for Structural Funds assistance, of which 3 million are in Objective 1 regions.
8 COM (1998)275, 'Renforcer la cohésion et la compétitivité par la recherche, le développement technologique et l'innovation', Communication of the Commission 12.06.1998.
9 RITTS (Regional strategies for innovation and technology transfer) have been financed under the Innovation Programme of the 4th Framework Programme.
10 COM (97) 7, 'Economic and social cohesion and the information society', Commission Communication.
11 European Commission, 'From telecommunications to the information society: evaluation criteria for the 2000-2006 programmes', Technical Document n°2, 1999.
12 RISI (Regional information Society Initiatives) were financed under Article 10 of the ERDF and Article 6 of the ESF.
13 European Policies Research Centre (EPRC), 'Objective 2: Experiences, lessons and policy implications', July 1999.
14 European Commission, 'Conclusions of ESF final evaluations, 1999'.
15 ENESAD, 'Synthesis of intermediate evaluations of Objective 5b in France', April 1998.
16 European Commission, 'Mid-term review of Objective 1 and 6 programmes – Better management through evaluation', 1997.
17 Tavistock Institute, 'Thematic evaluation of the partnership principle', 1999.
18 For Quest II: Röger, W. (1996) 'Macroeconomic evaluation of the effects of CSF with Quest II' (paper presented at the European Conference on evaluation methods for Structural Funds intervention, Berlin 2-3 Dec. 1996). For Hermin: Bradley, J. (2000) 'The impact of CSF on objective 1 countries – 1989-2006' (study for the Regional Policy DG of the European Commission). The detailed results are presented in the Annex.
19 European Commission, 'The Structural Funds and their coordination with the Cohesion Funds – Guidelines for the 2000-2006 programmes', COM (1999) 344 Final.
20 A document which sets out the context for support for employment and human resources development in each Member State.
21 At the time of drafting full details on Objective 2 programmes were not available.
22 The Commission has announced priorities for the four Initiatives and has decided the allocation of the overall amount (EUR 10.44 billion or 5.3% of the total Structural Funds) between Member States.
23 European Commission, 'Indicators for monitoring and evaluation', Working Document n°3, 1999.
24 C(2000)3103.

Regional features in Turkey

Since the Helsinki summit, Turkey has become the 13th candidate country for accession to the EU.

Regional disparities

According to OECD data, GDP per head in terms of PPS is only 33.4% of the EU average. Indeed, the difference in relation to the EU seems to have persisted for many years at around this level, going back at least to the beginning of the 1950s, higher GDP growth than in the EU being offset by high population growth. Regional disparities are associated with significant differences in geographical features and climatic conditions, though they also have their roots in the substantial migration flows which occurred during the troubled times at the end of the 19th century and first half of the 20th.

The data available on GDP per head by province, of which there are 80 and which have been aggregated into 19 regions of approximately NUTS 2 size, illustrate the scale of disparities in 1997:

- between east and west: two-thirds of the population were concentrated in the west of the country in half the land area, accounting for 82% of national GDP, and with GDP per head 23% above the national average (41% of the EU average). In the east, GDP per head was 53% of the national average, much the same as 10 years earlier;
- between coastal and inland regions: GDP per head in the four coastal regions as a whole accounting for 55% of the population is 26% above the national average;
- in two regions (Istanbul and Izmit), GDP per head was substantially above the national average (53% and 70% higher, respectively), or around half the EU average;
- in 7 regions (Aegean Sea, the southern coastal areas, Ankara), GDP per head was up to 50% above the national average, or between a third and a half of the EU average;
- in 7 regions (around Anatolia, the Black Sea coastal areas), the level was between half and 100% of the national average, between 20% and 33% of the EU average;
- in the remaining three regions, in eastern Anatolia, the level was between 20% and 50% of the national average, or only 7% to 16% of the EU average, lower than in any other regions in the candidate countries.

Social disparities

Employment

In 1998, the official unemployment rate was estimated at 6.3% of the labour force, but this does not reflect the true situation given the absence of an unemployment benefit system and substantial under-employment. Of the 20.5 million in civilian employment, 5.5 million were unpaid family workers, mostly women. While the activity rate of men was much the same as the EU average (79%), for women, it was considerably lower (29% as against 59%), particularly in urban areas (15%). Data on occupations suggest that women face considerable difficulties, or even discrimination, in finding a job in manufacturing or services.

Education

The rate of illiteracy is still significant (18% as against 3% in Greece), even among young people in the work force and especially among women (24%). Participation in compulsory schooling is below 90% of the age group concerned, largely due to children working, 1 million of those between 6 and 14 being in work, a third of them under 12.

Structural policies

Regional policy

In contrast to the other candidate countries, Turkey introduced a regional policy during the 1970s with an aid scheme for business. The provinces assisted accounted for a third of the population and had an average level of GDP per head of 56% of the national average.

The policy, however, has not produced significant results. Because of security problems during the 1990s, financial aid did not attract many firms to eastern regions. Moreover, problems of lagging development were compounded by difficulties in the coal (Zonguldak) and the iron and steel (Karabük) industries.

Data on public investment, which is still substantial because of a large nationalised industry sector, indicate that support of disadvantaged areas was small. In 1997, total spending on investment amounted to around EUR

194 per head, of which some 40% went on regional measures.

Social policy

The macroeconomic adjustment underway will have lasting effects only if it is accompanied by a broad range of social reforms. Much needs to be done in respect of employment legislation, equal opportunities, social protection, health care, education and humans rights.

Social expenditures accounts for only 7% of GDP as compared with 25% in the European OECD countries, leaving a large part of the population without adequate protection.

Employment

There is no general unemployment compensation system in Turkey. Under employment regulations and collective agreements, dismissals give entitlement to a fixed payment proportional to the time spent in a job. However, 50% of employment is not declared and collective agreements cover only 35% of those in officially declared jobs. There is no provision in employment legislation against sex discrimination and, according to the 1998 UNDP report on human development, discrimination is institutionalised and a structural feature of the labour market.

Health

The current health care system is costly and not particularly effective. In 1998, the deficit on expenditure amounted to 2.7% of GDP and accounted for a third of the total budget deficit. Access to health care is unequal, with rural areas being especially disadvantaged, expenditure on public health centres, mainly located in rural areas, declining from 7% to 3% of the total health budget between 1992 and 1996.

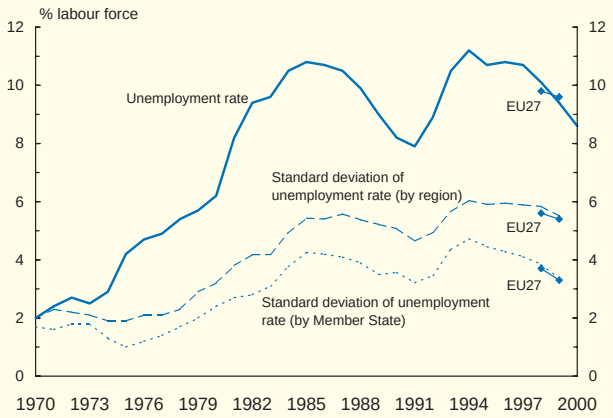
Education

Despite a relatively large number of children of school age, spending on primary and secondary education amounts to only 2.1% of GDP, against an OECD average of 3.4%. Expenditure per pupil in primary schools is only just over 20% of the OECD average, while in secondary schools it is only around 12%. For the poorest families, children are a significant source of income and there is no Government policy to encourage parents to send them to school.

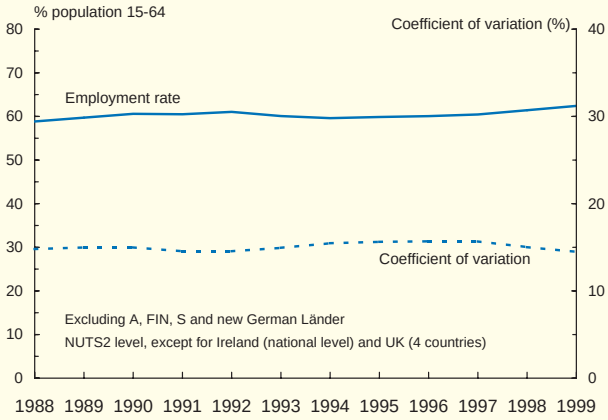
Conclusions

In the context of preparing for accession, it is essential that Turkey develops regional and social policies capable of responding to needs and enabling it to participate in EU programmes for strengthening economic and social cohesion.

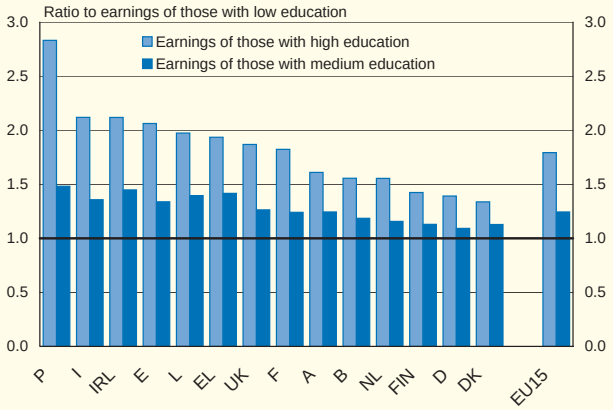
A.1 Disparities in unemployment, EU15 1970-99; EU27 1998-99



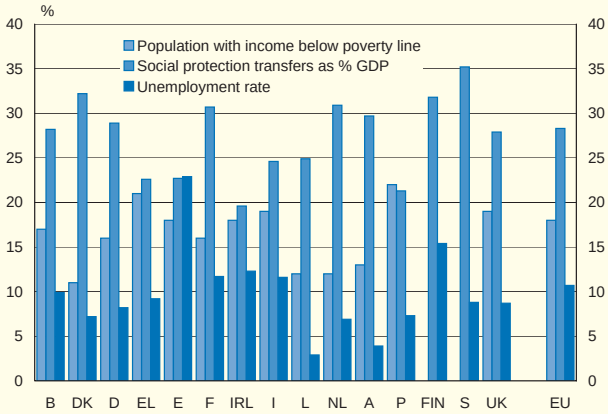
A.2 Regional disparities in employment rates, EU12, 1988-99



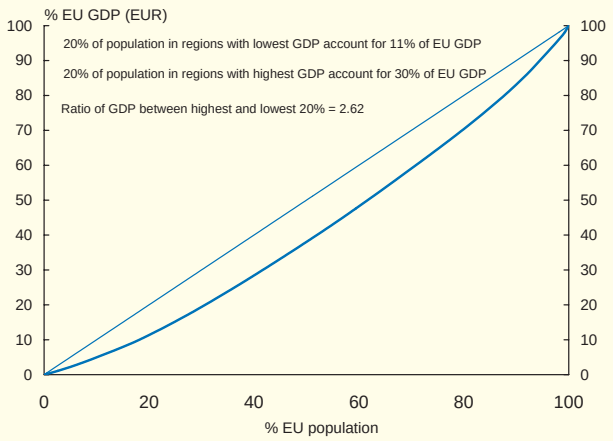
A.3 Earnings by level of educational attainment, 1995



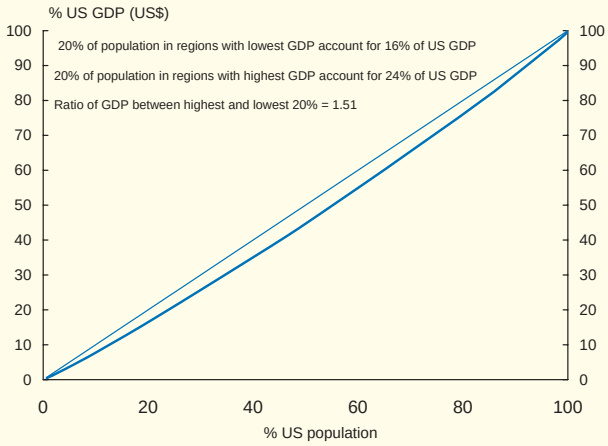
A.4 Poverty and social protection transfers, 1995



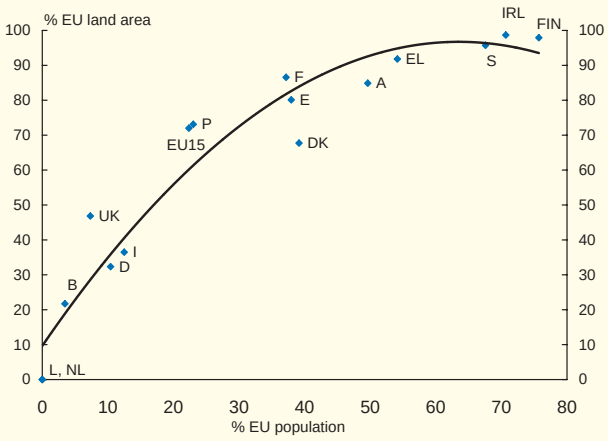
A.5 Distribution of GDP by region, EU15, 1998



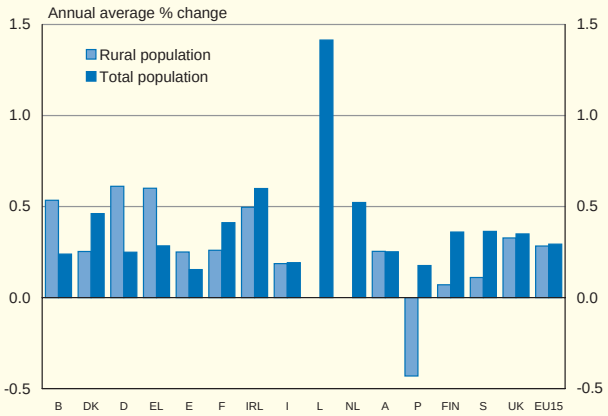
A.6 Distribution of GDP by State, US, 1998



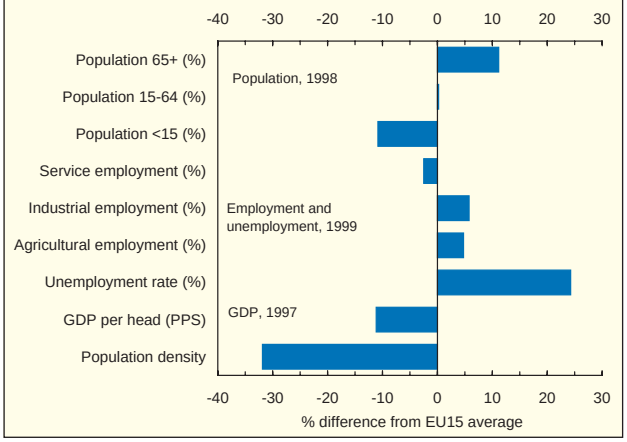
A.7 Distribution of population in rural areas in EU15, 1997



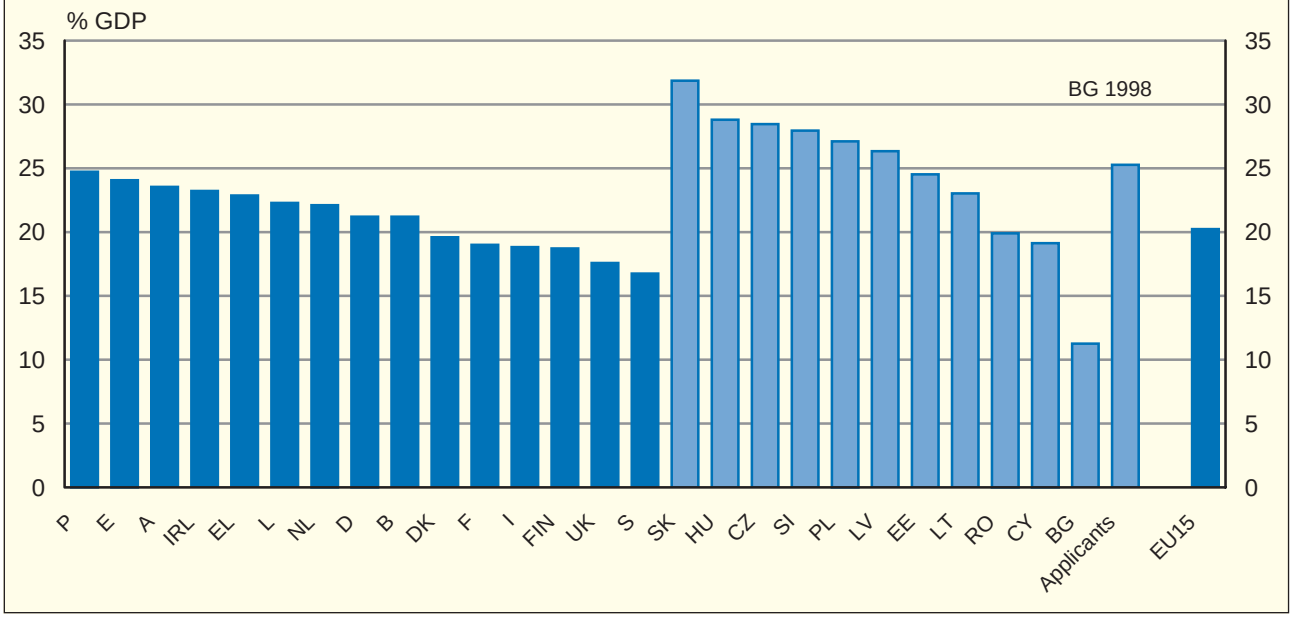
A.8 Annual change in rural and total population in EU15, 1993-97



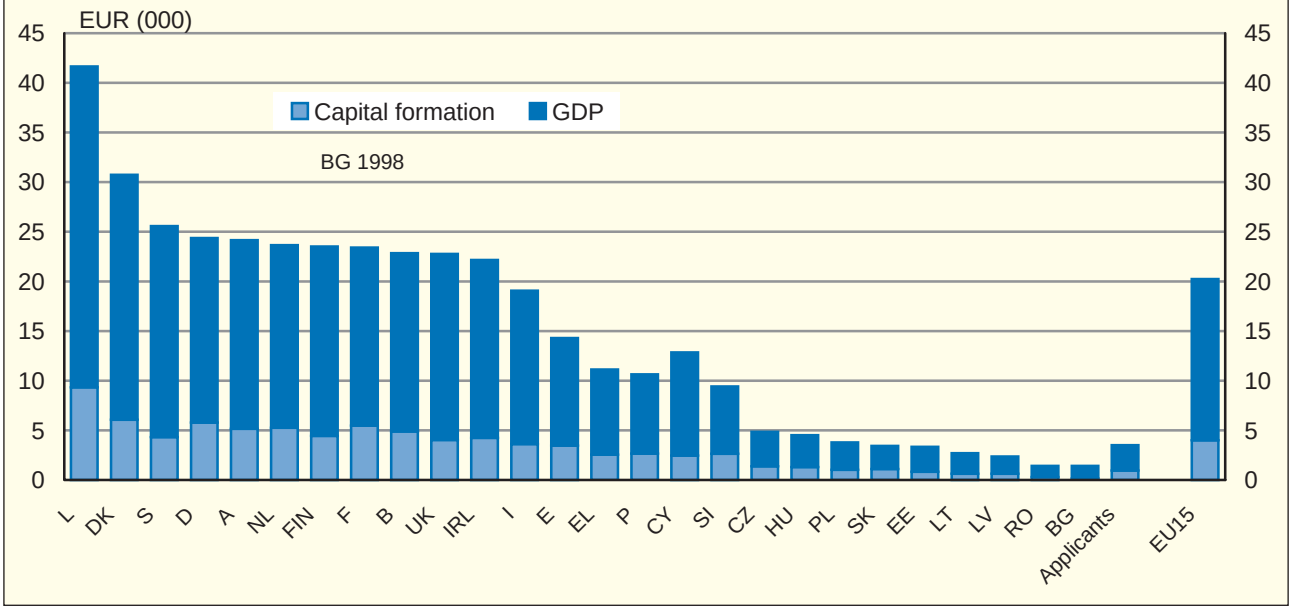
A.9 Features of regions with population decline in EU15, 1993-98



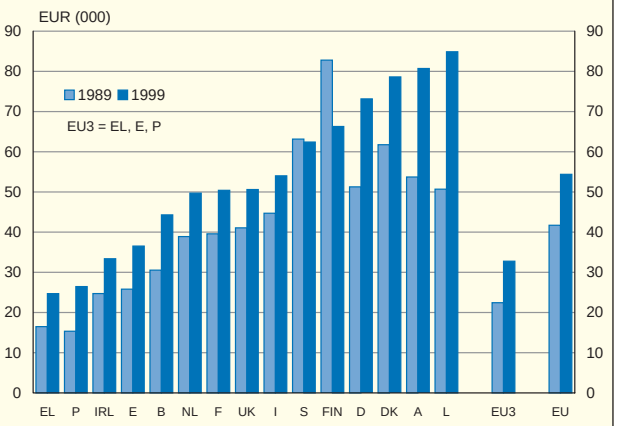
A.10 Gross fixed capital formation, 1999



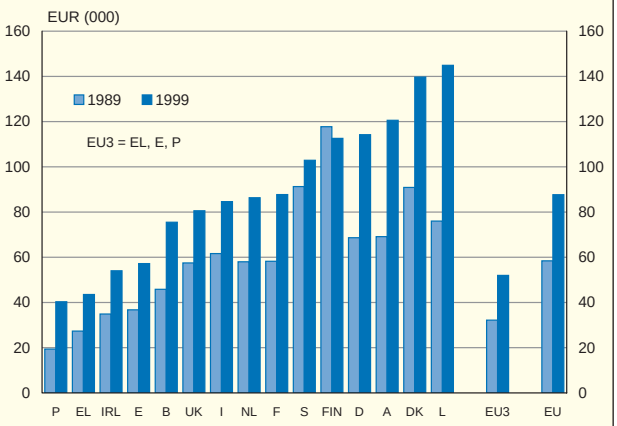
A.11 GDP and gross fixed capital formation per head, 1999



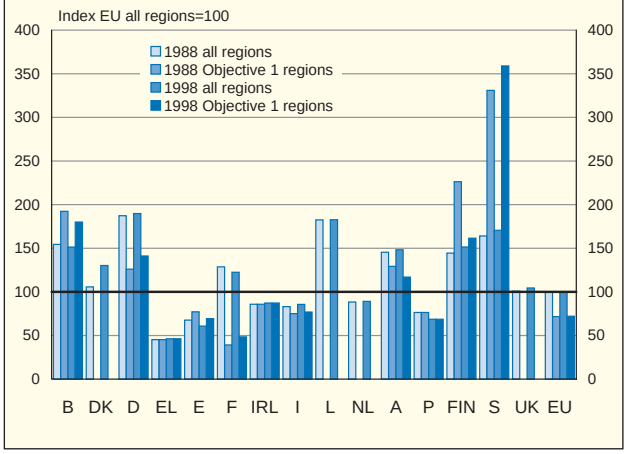
A.12 Net capital stock per head in EU15, 1989 and 1999



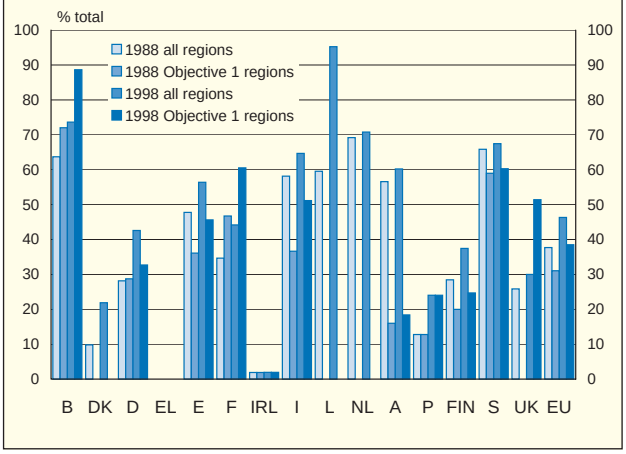
A.13 Gross capital stock per head in EU15, 1989 and 1999



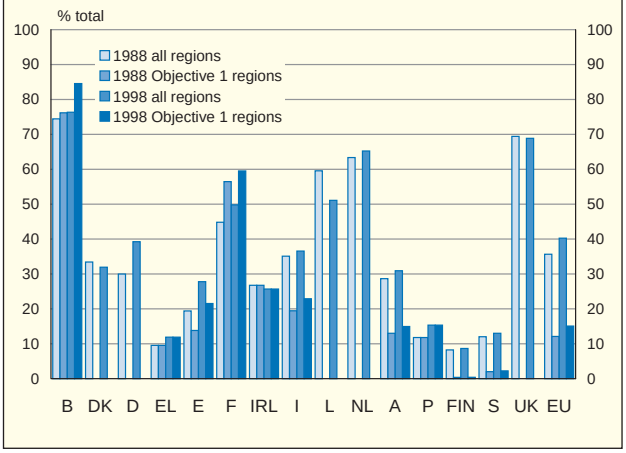
A.14 Composite index of railway lines in EU15, 1988 and 1998



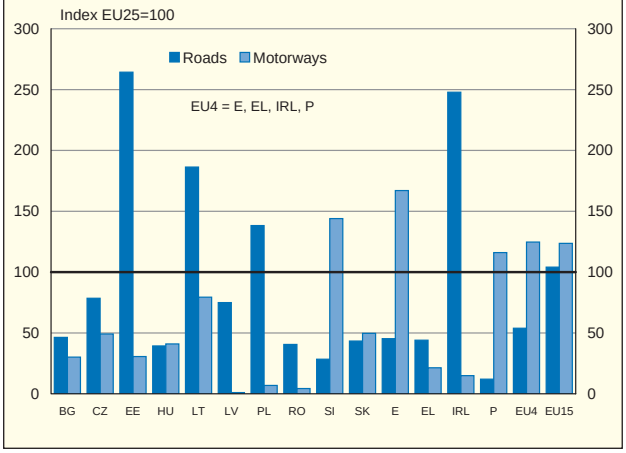
A.15 Electrified railway lines in EU15, 1988 and 1998



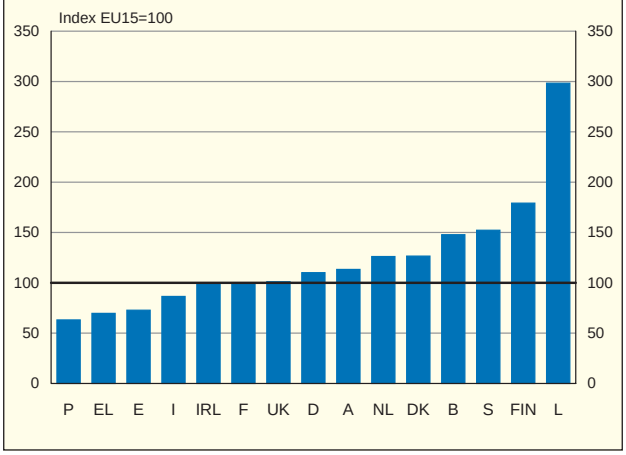
A.16 Double-track railway lines in EU15, 1988 and 1998



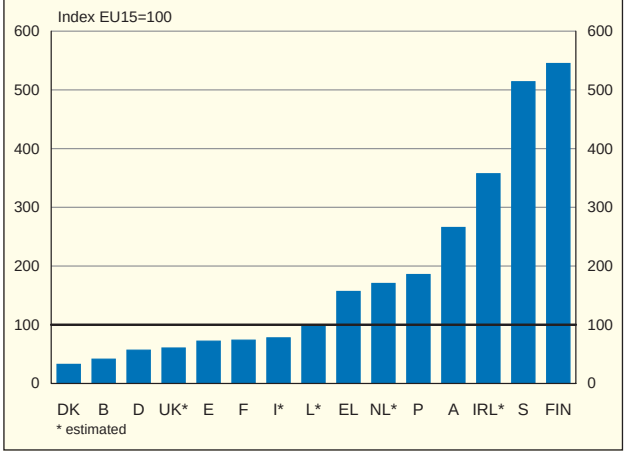
A.17 Index of roads in candidate countries and EU15, 1996



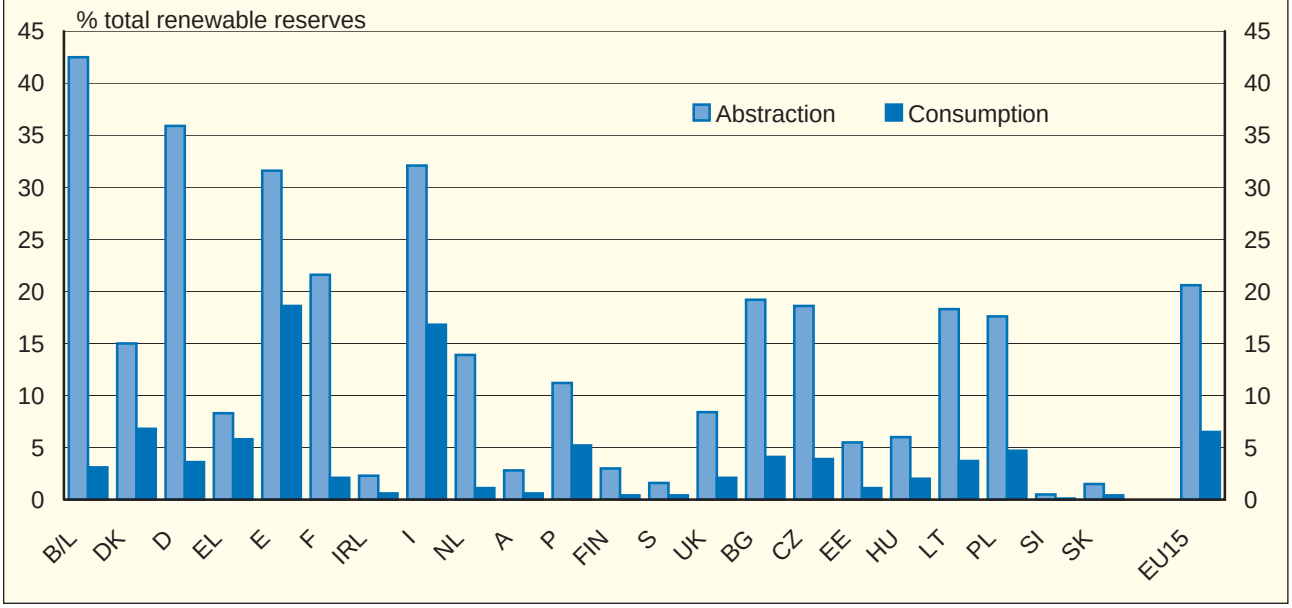
A.18 Final energy consumption per head in EU15, 1998



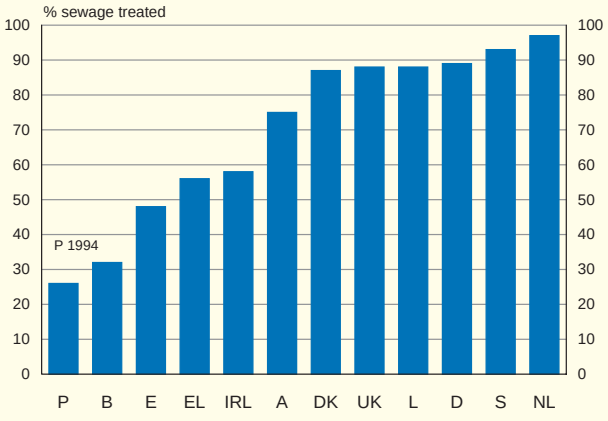
A.19 Total freshwater reserves in EU15



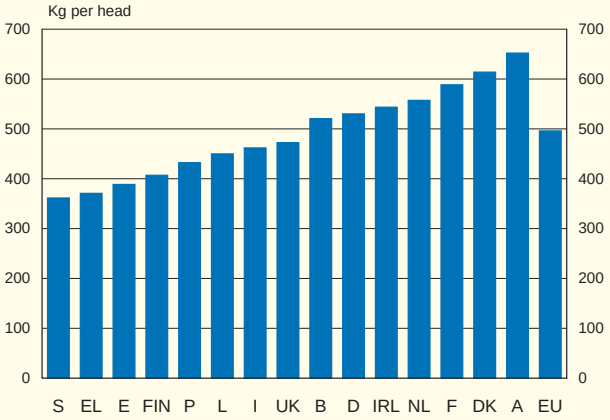
A.20 Total water abstraction and consumption



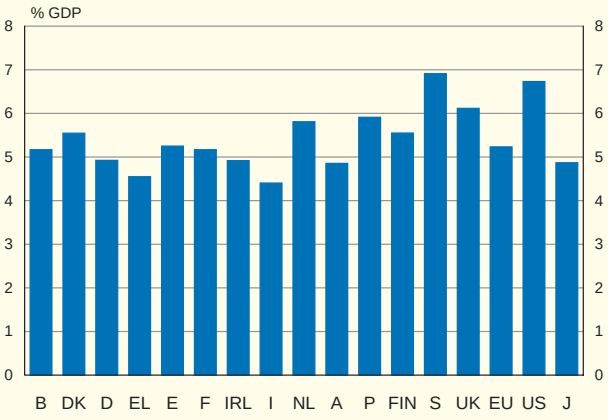
A.21 Population connected to waste water treatment plants, 1995/96



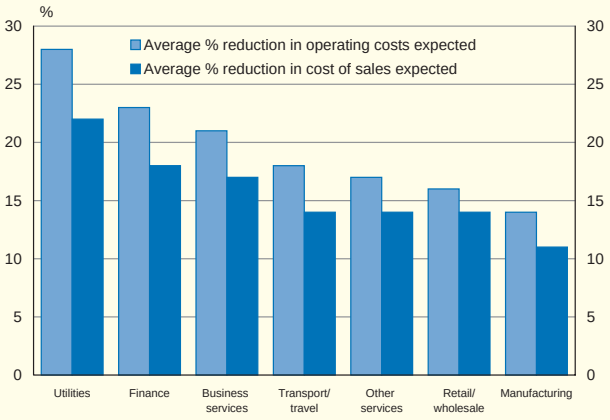
A.22 Municipal waste, 1996/97



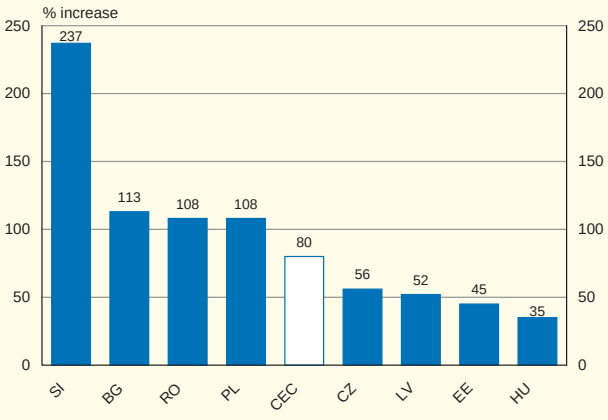
A.23 Value of ICT markets, 1998



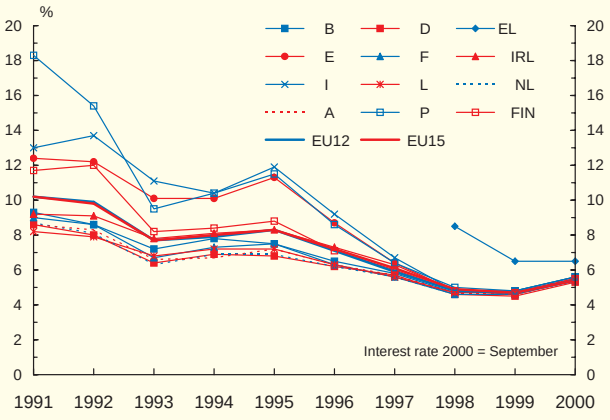
A.24 Expected cost savings from e-commerce adoption, 1999



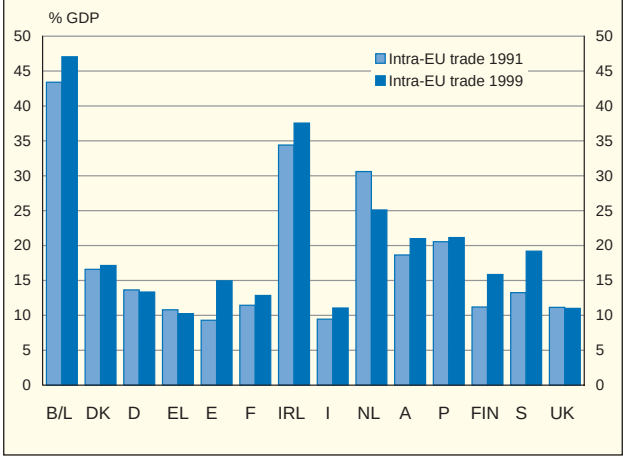
A.25 Growth of mobile phone penetration, 1998-99



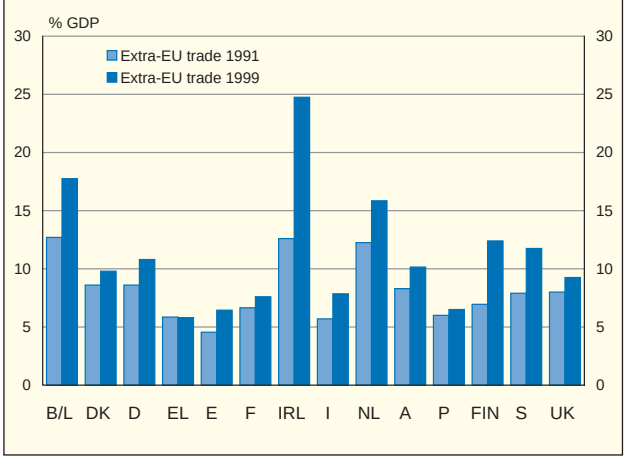
A.26 Nominal long-term interest rates (10-year government bond yields) in the EU, 1991-2000



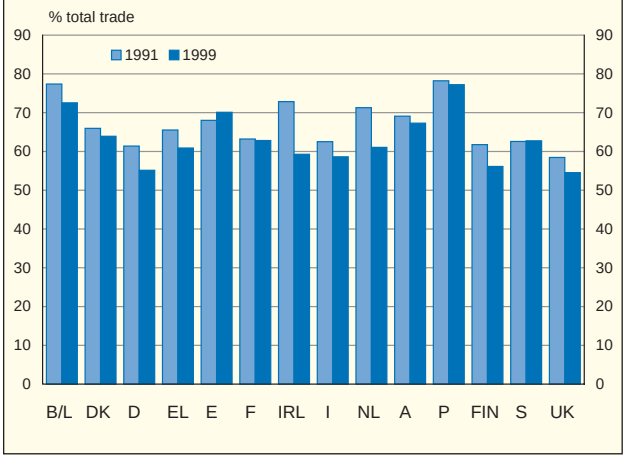
A.27 Intra-EU trade of Member States, 1991 and 1999



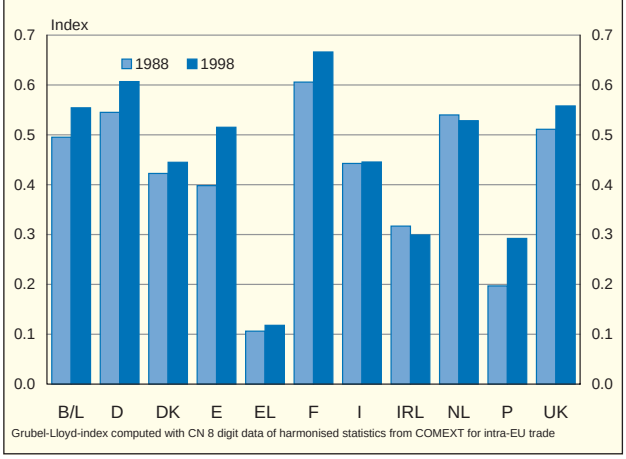
A.28 Extra-EU trade of Member States, 1991 and 1999



A.29 Intra-EU trade as % of total trade of Member States, 1991 and 1999

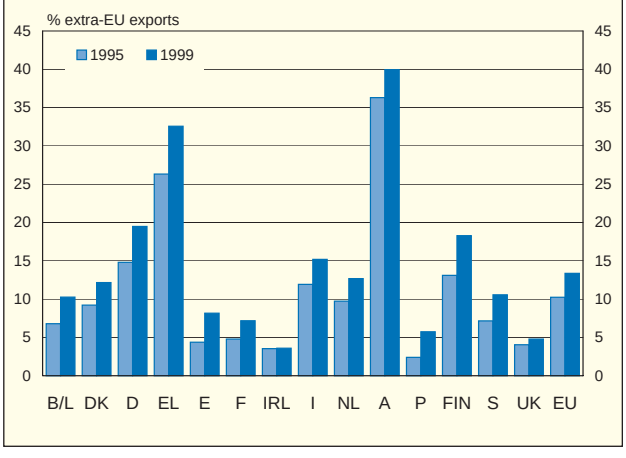


A.30 Intra-industry trade of EU12 Member States, 1988 and 1998

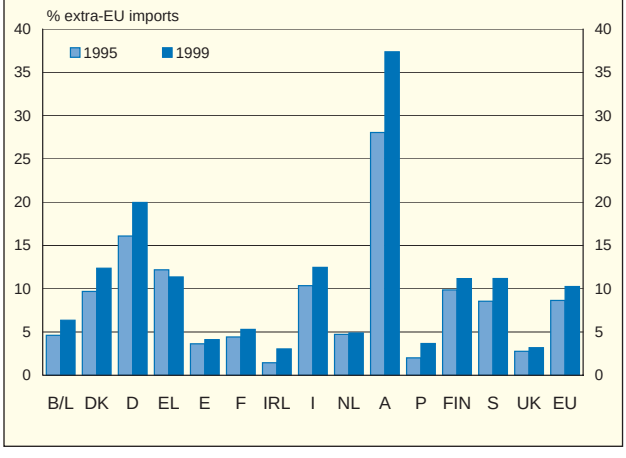


Grubel-Lloyd-index computed with CN 8 digit data of harmonised statistics from COMEXT for intra-EU trade

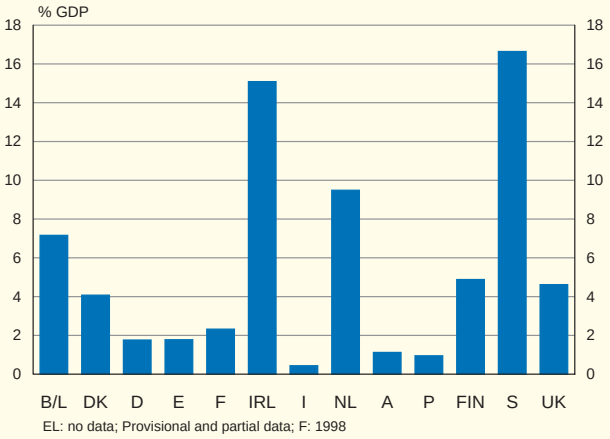
A.31 Exports to CECs as share of extra-EU exports of Member States, 1995 and 1999



A.32 Imports from CECs as share of extra-EU imports of Member States, 1995 and 1999

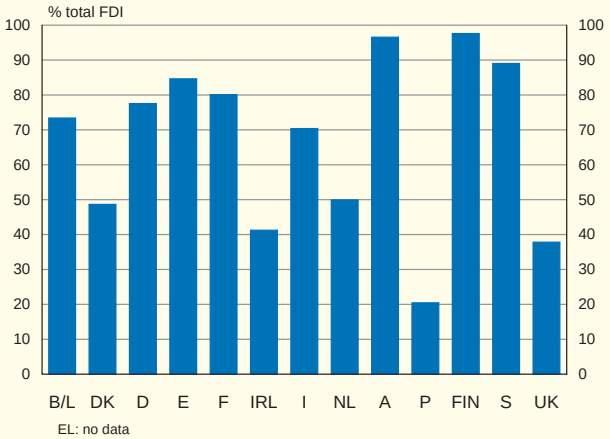


A.33 Total FDI in Member States, average 1998 and 1999



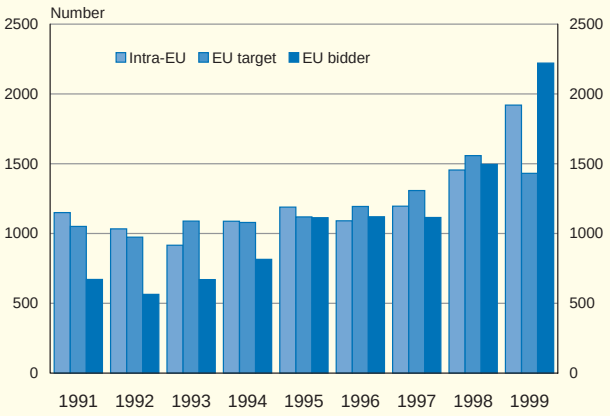
EL: no data; Provisional and partial data; F: 1998

A.34 FDI from other EU Member States, average 1998 and 1999

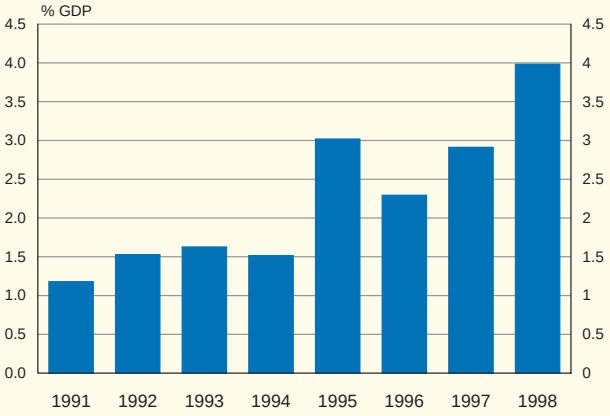


EL: no data

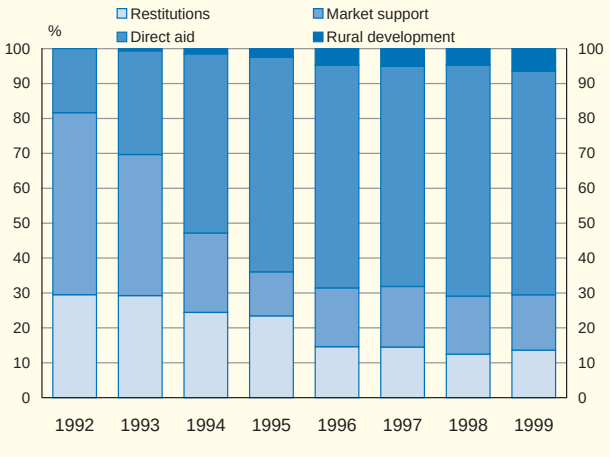
A.35 Number of cross-border mergers and acquisitions, 1991-99



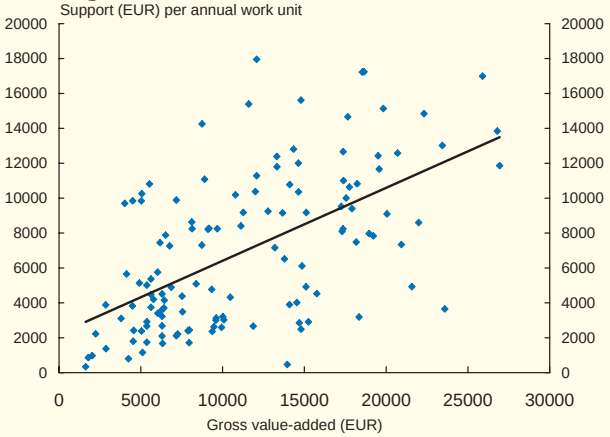
A.36 Foreign direct investment in CECs, 1991-98



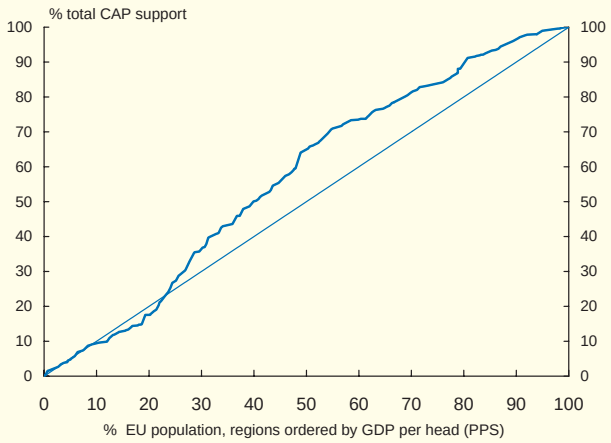
A.37 Agricultural expenditure by measure, 1992-99



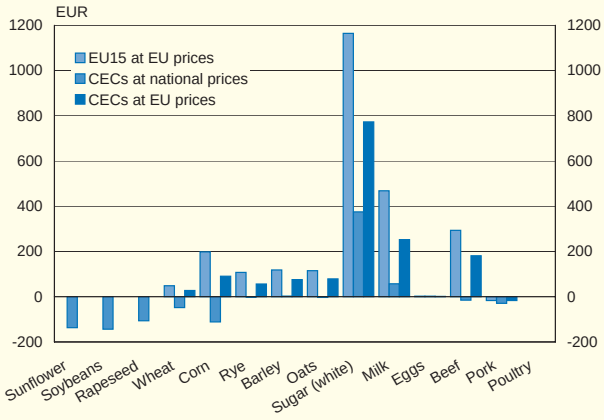
A.38 Relationship between value-added and total CAP support (price and direct) for EU regions, 1996

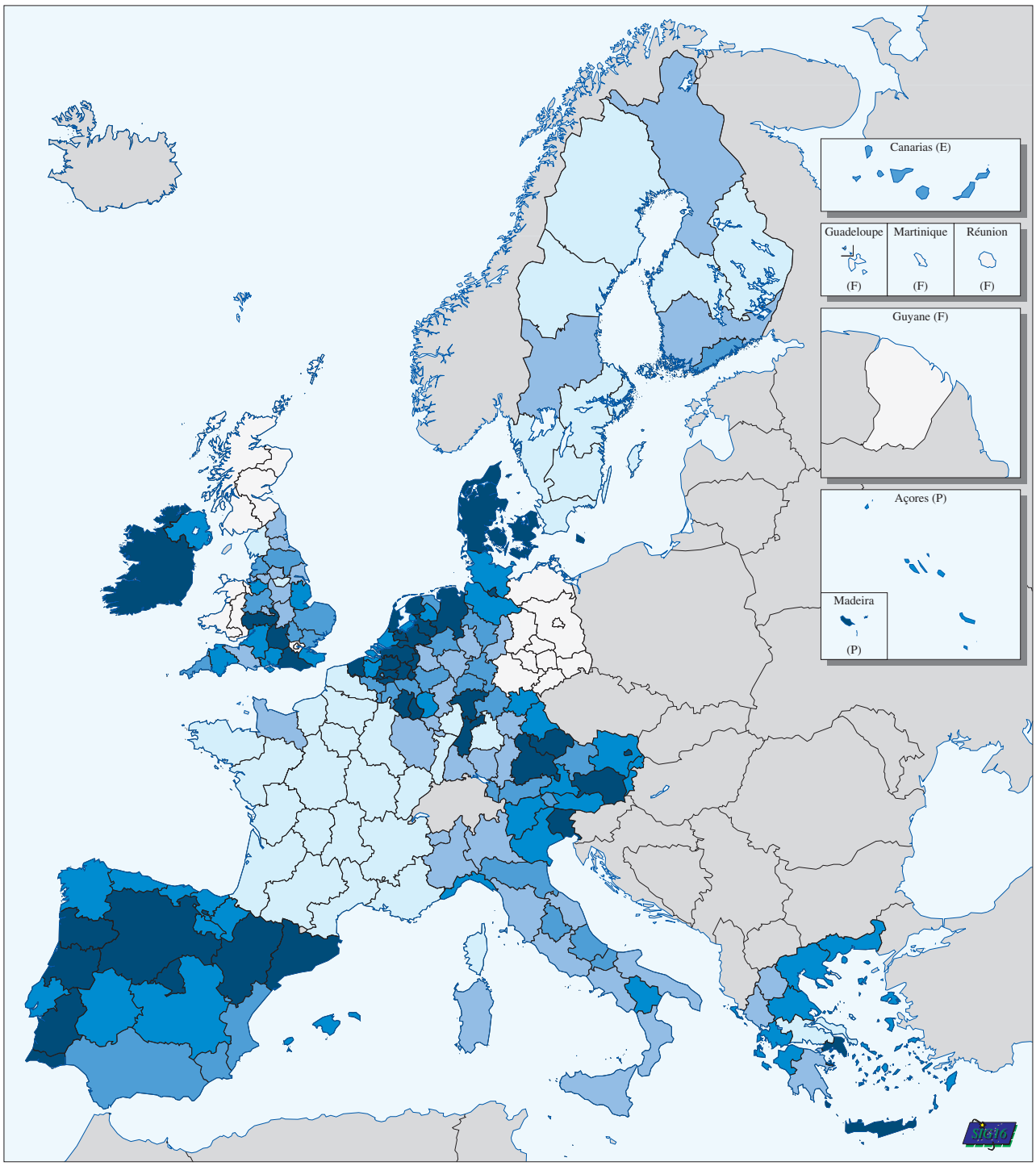


A.39 Distribution of CAP support by level of regional development, 1996



A.40 Market price support per hectare or livestock unit, average 1997-99





A.1 Change in GDP per head (PPS), 1987-1997

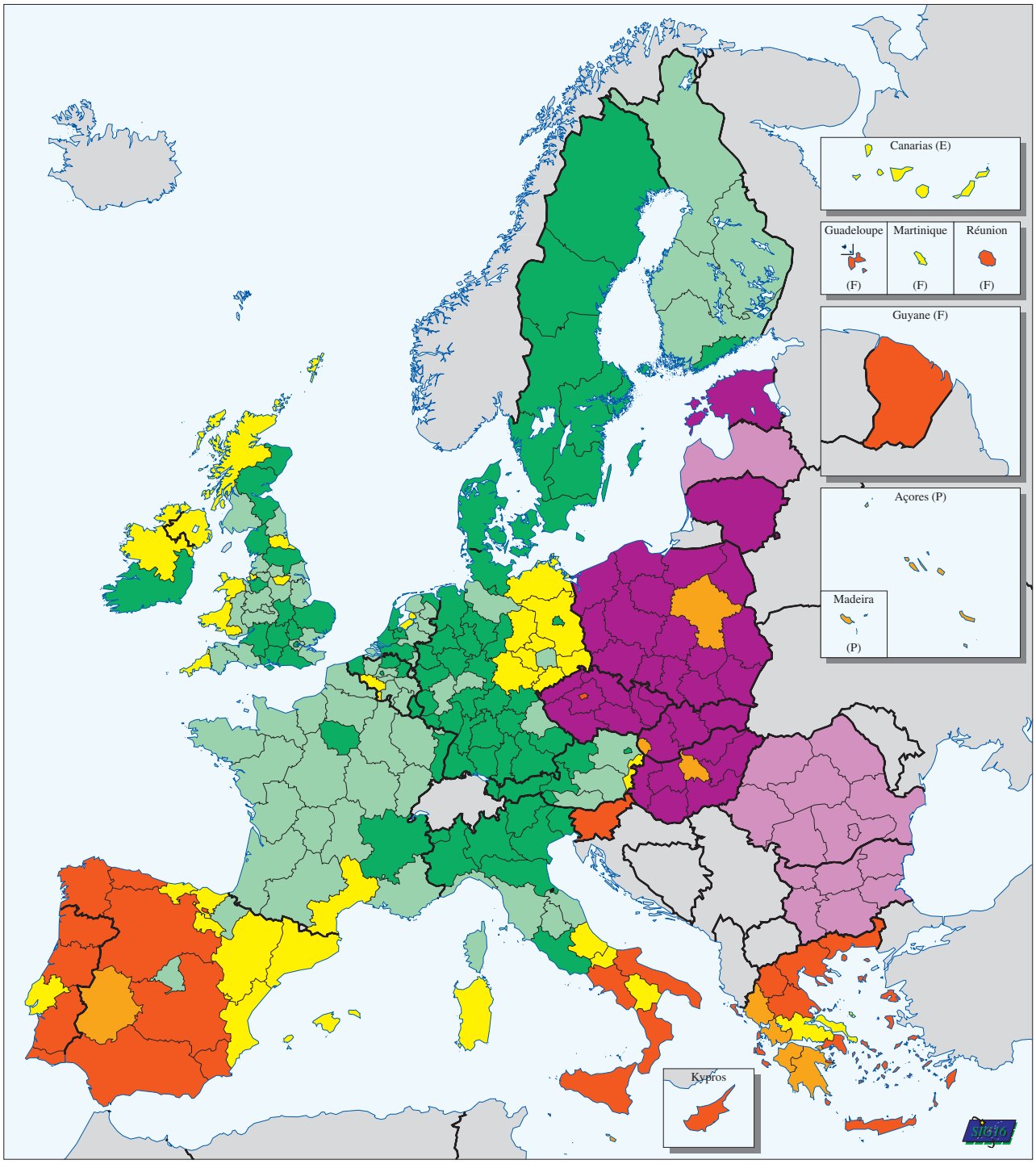
Change in index (Eu15 = 100)

- < - 6
- - 6 - - 1
- - 1 - 4
- 4 - 9
- > 9
- no data

IRL: NUTS0

Source: Eurostat

0 100 500 km



A.2 GDP per head by region (Euro), 1998

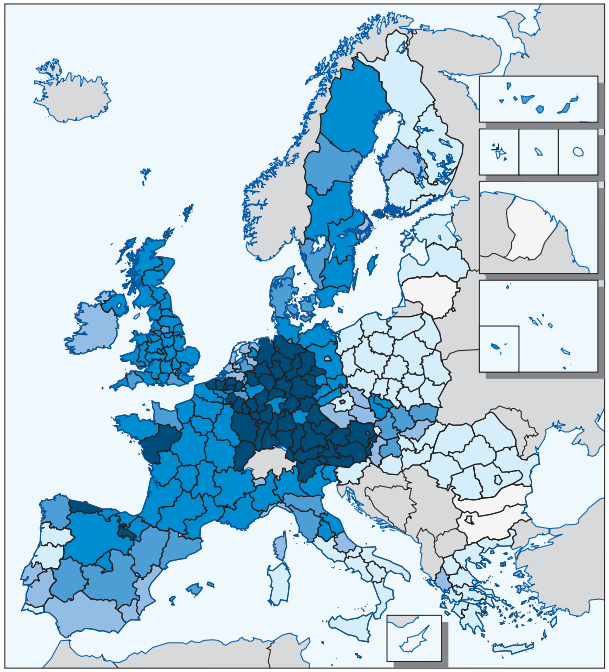
Index, EUR27 = 100

- < 15
- 15 - 30
- 30 - 50
- 50 - 75
- 75 - 100
- 100 - 125
- ≥ 125

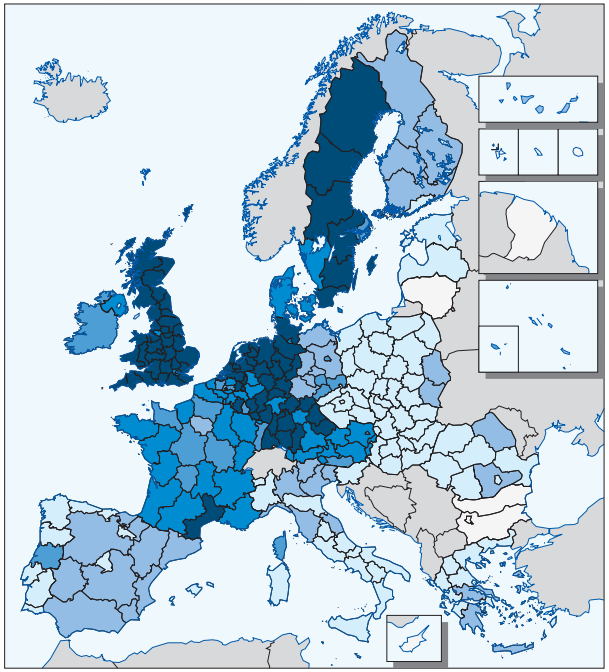
Source: Eurostat

0 100 500 km

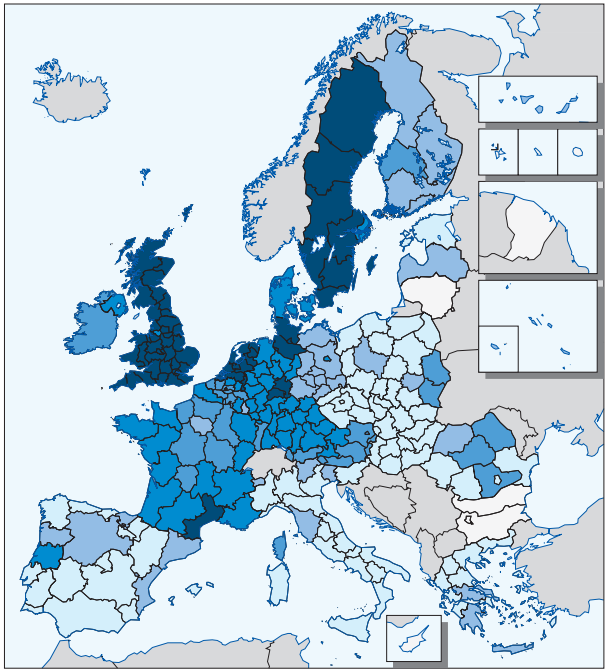
A.3 Part-time employment, 1999



Women as % of total part-time employed



Female part-time employment



Total part-time employment

% part-time employed

- < 69.8
- 69.8 - 74.8
- 74.8 - 79.8
- 79.8 - 84.8
- ≥ 84.8
- no data

average = 77.3
Standard deviation = 9.9

D (Sachsen): NUTS1
IRL: NUTS0
SK: 1998

Source: Eurostat (LFS)

% total female employment

- < 15.3
- 15.3 - 23.3
- 23.3 - 31.3
- 31.3 - 39.3
- ≥ 39.3
- no data

average = 27.3
Standard deviation = 16.1

D (Sachsen): NUTS1
IRL: NUTS0
SK: 1998

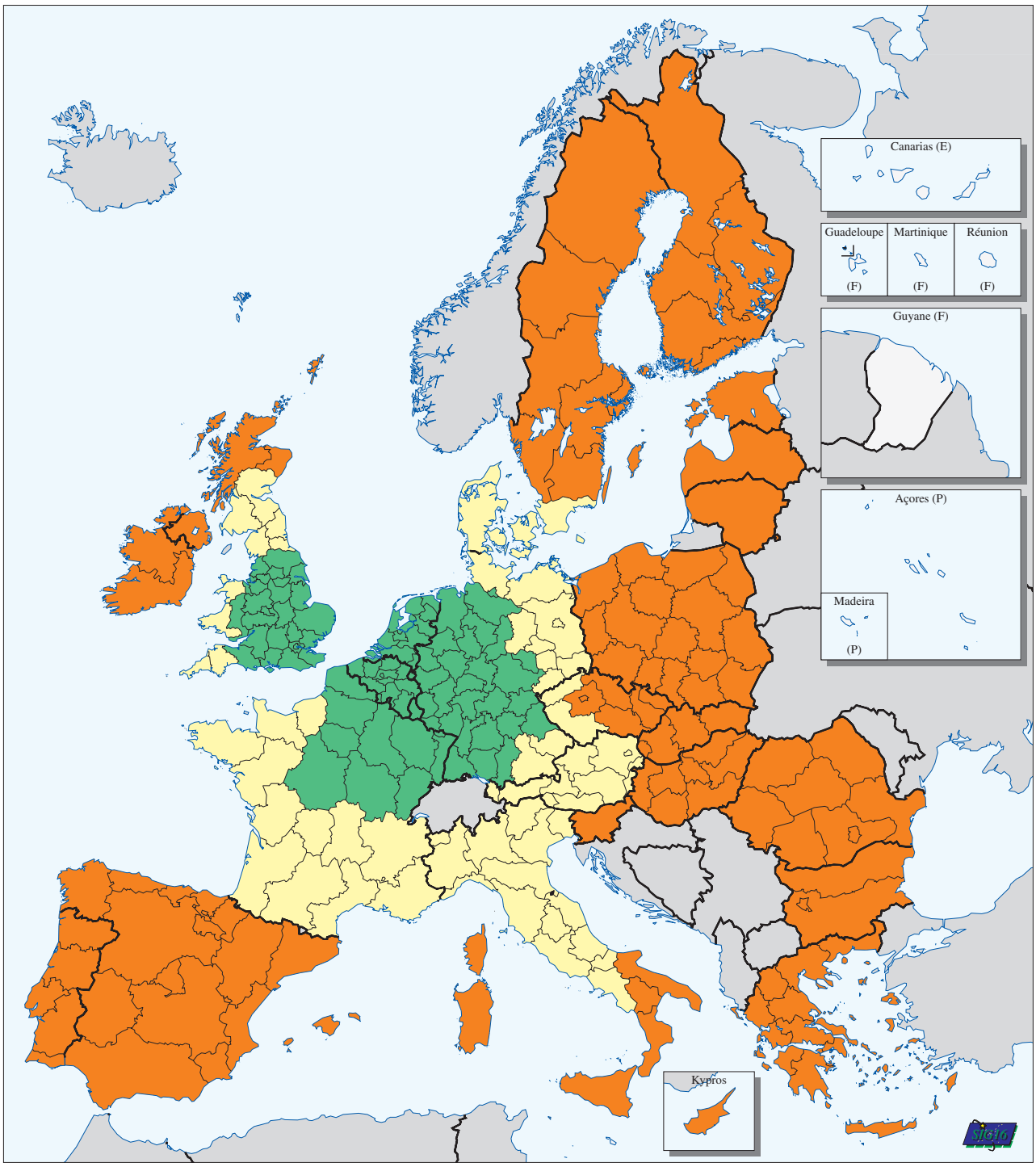
0 250 1250 km

% total employment

- < 9.1
- 9.1 - 13.3
- 13.3 - 17.5
- 17.5 - 21.7
- ≥ 21.7
- no data

average = 15.4
Standard deviation = 8.4

D (Sachsen): NUTS1
IRL: NUTS0
SK: 1998



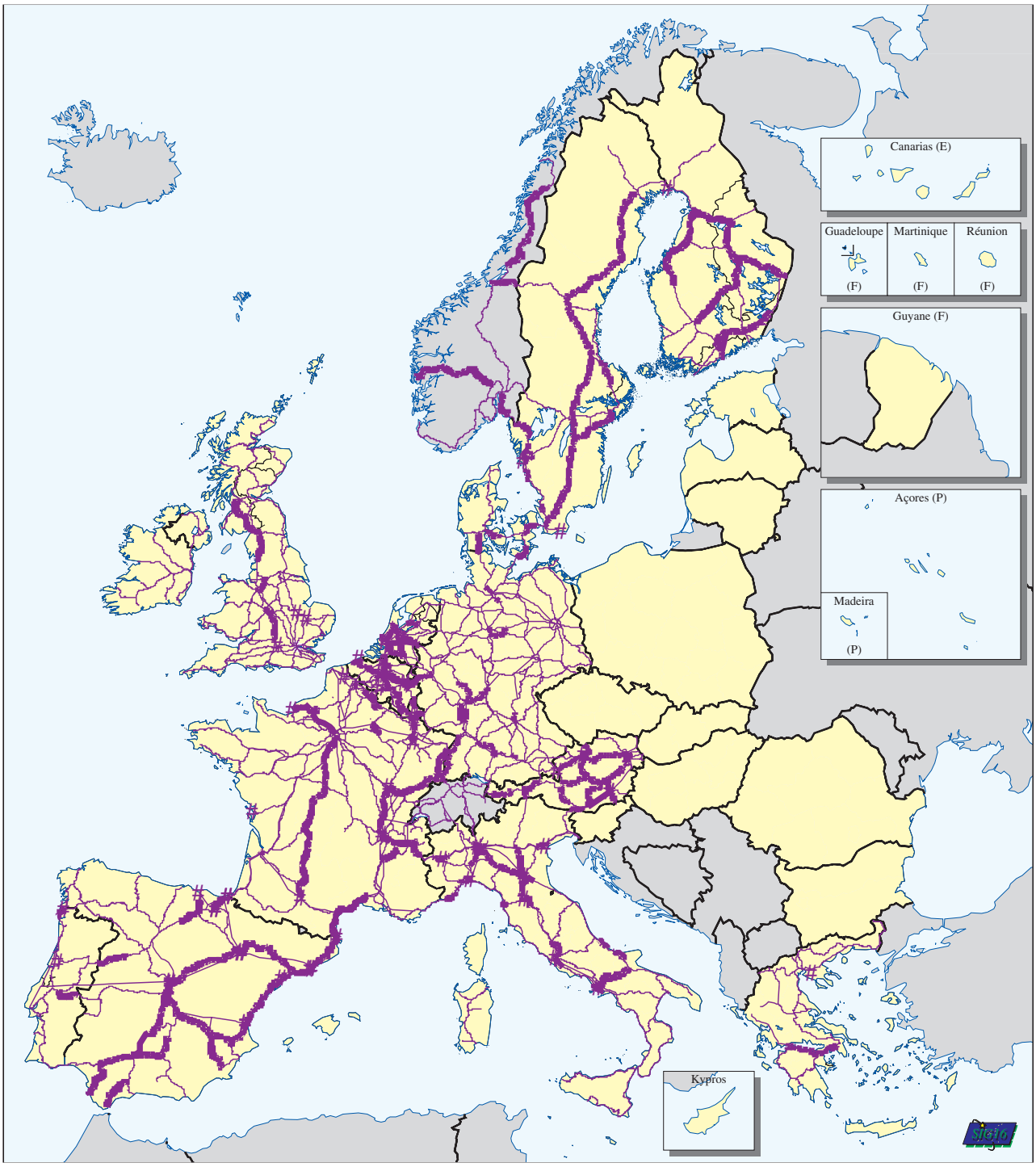
A.4 Central and peripheral regions

Central regions
Peripheral regions
Other regions

According to the peripherality index
to GDP in Euro by lorry (NUTS2)

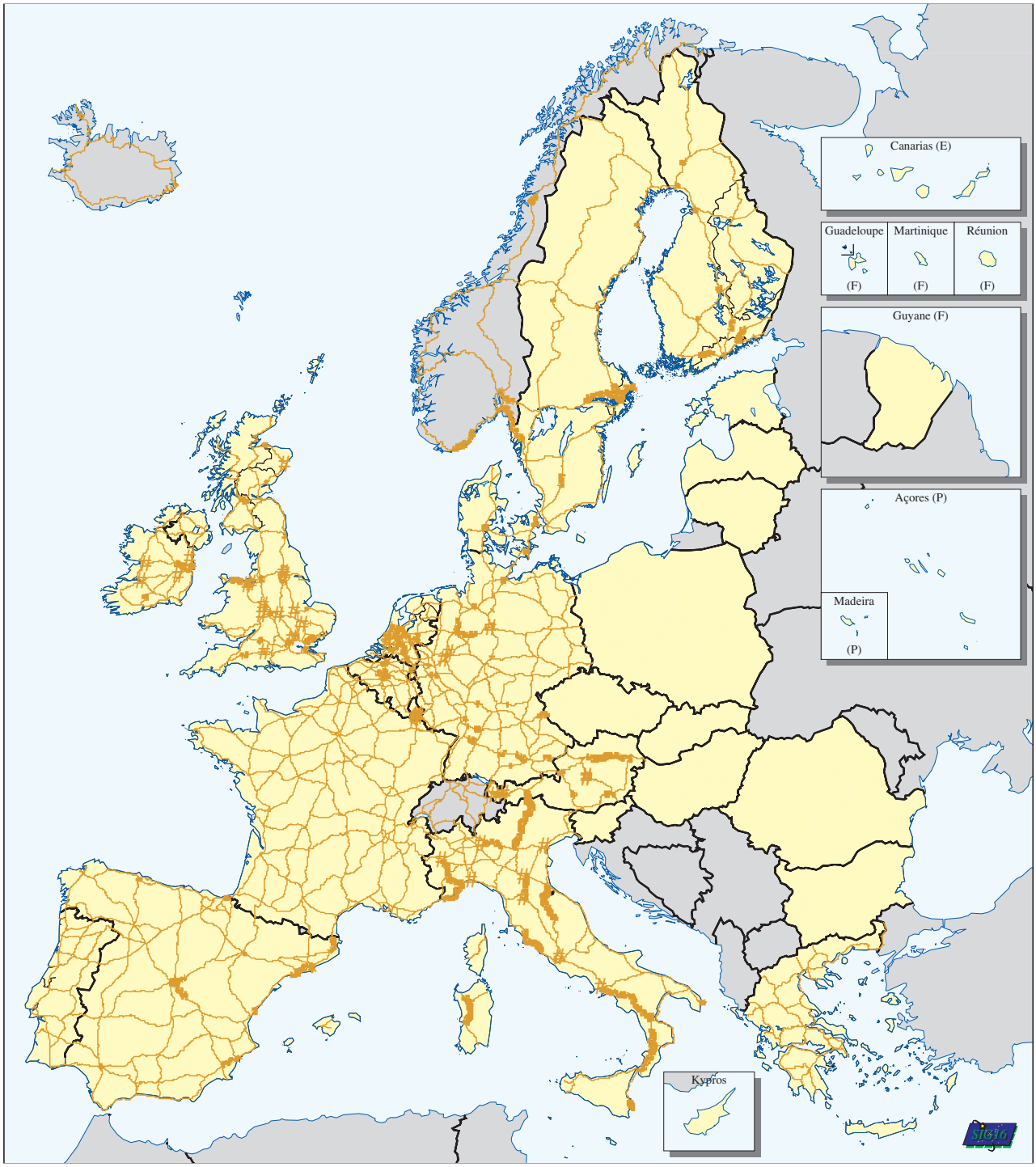
Source: IRPUD - DGREGIO

0 100 500 km



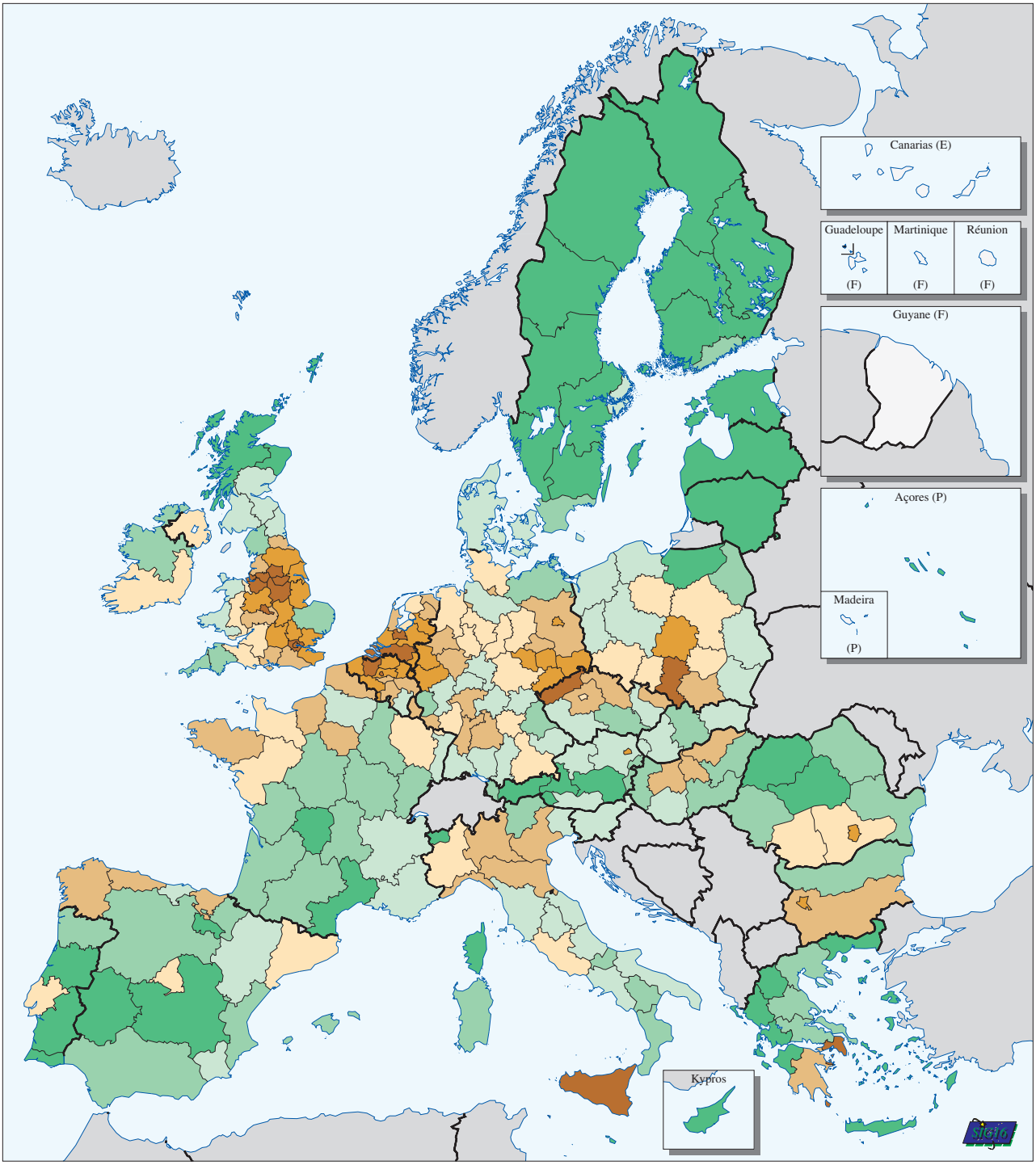
A.5 Trans-European Transport Network Outline Plan (2010 horizon)

Rail bottlenecks



A.6 Trans-European Transport Network Outline Plan (2010 horizon)

Road bottlenecks



A.7 Emissions of acidifying gases, 1998

Index, average EUR27 = 100

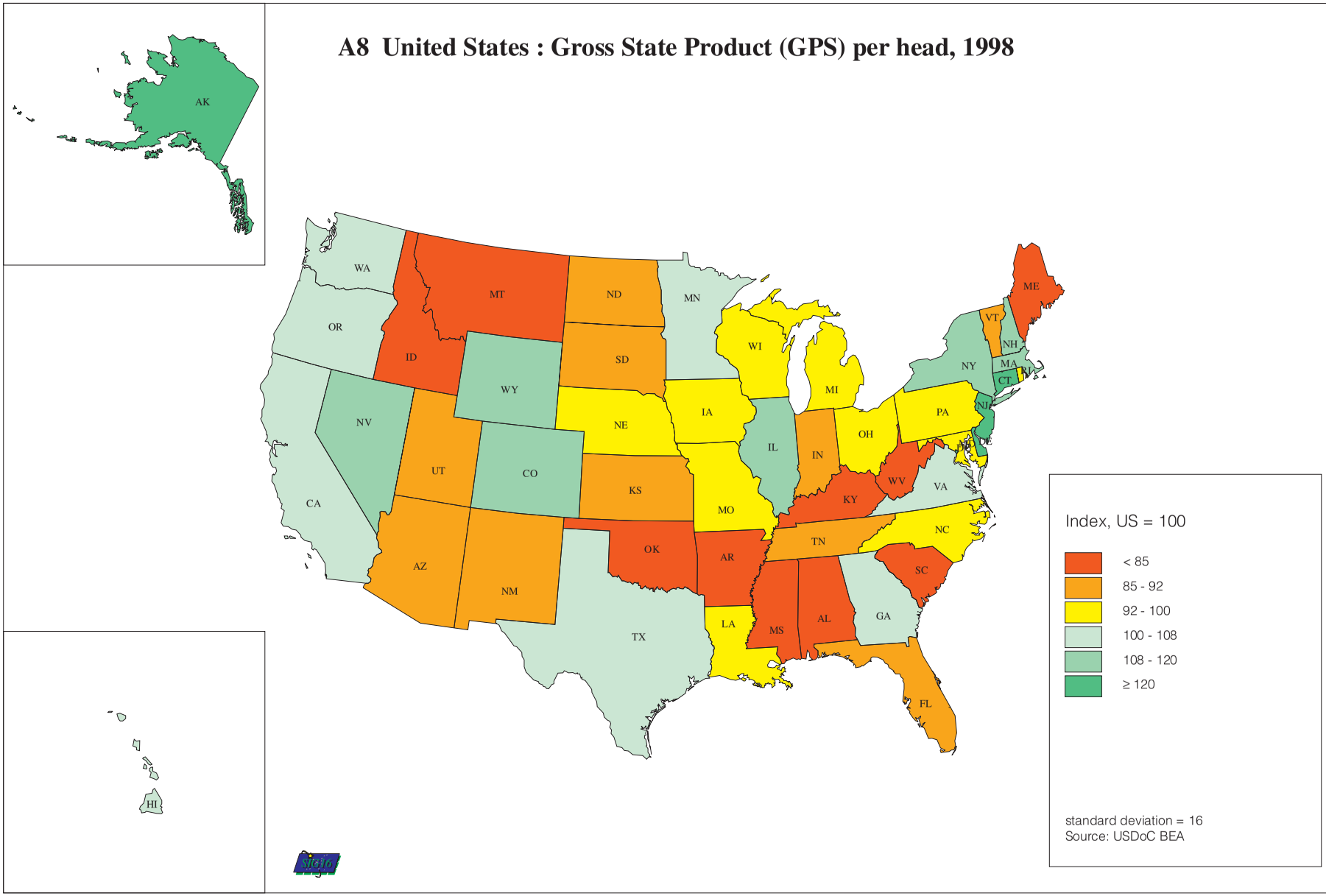
- < 60
- 60 - 80
- 80 - 120
- 120 - 160
- 160 - 250
- 250 - 400
- ≥ 400
- no data

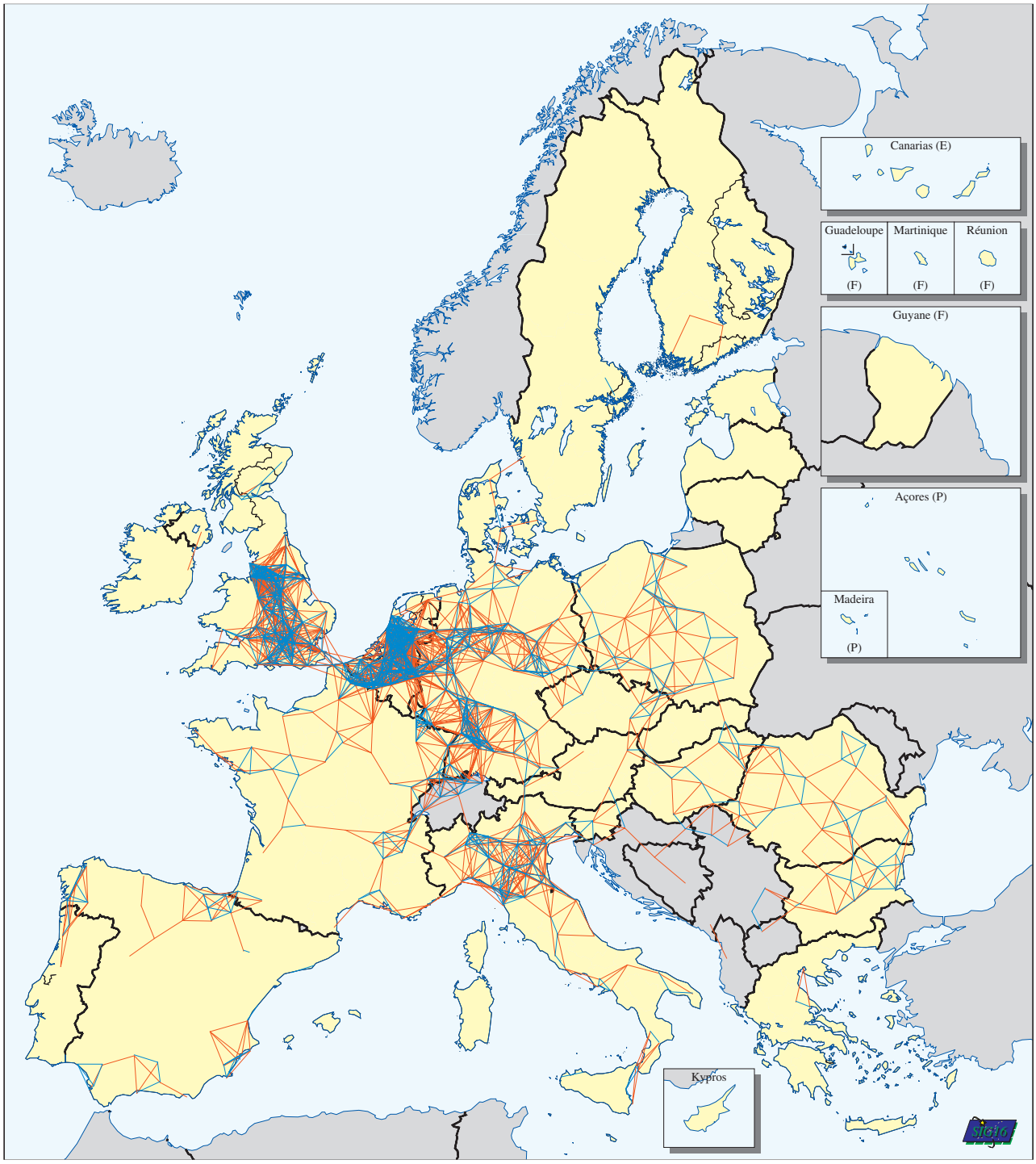
Average of indices of regional emission estimates per km² for SO_2, NO_2 and NH_3.

Source: EMEP/MSC-W - DG REGIO

0 100 500 km

A8 United States : Gross State Product (GPS) per head, 1998





A.9 Spacing between European urban areas

Euclidian distance between centres of urban areas

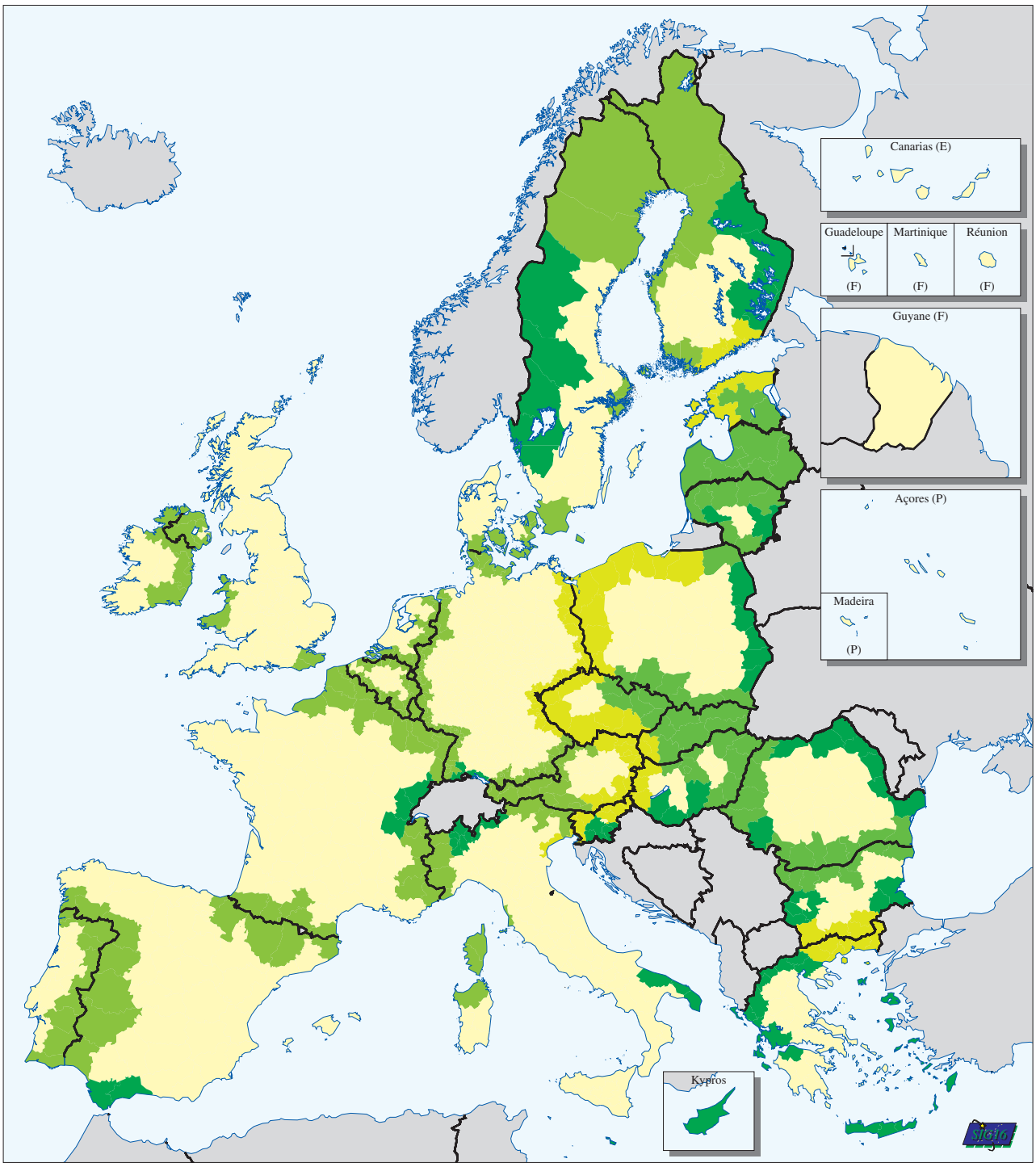
less than 100 km

100 km to 150 km

Source: GEOPOLIS, F.Moriconi-Ebrard, 1993

@GIP R.E.C.L.U.S. Equipe P.A.R.I.S., C. Rozenblat, 1995

0 100 500 km



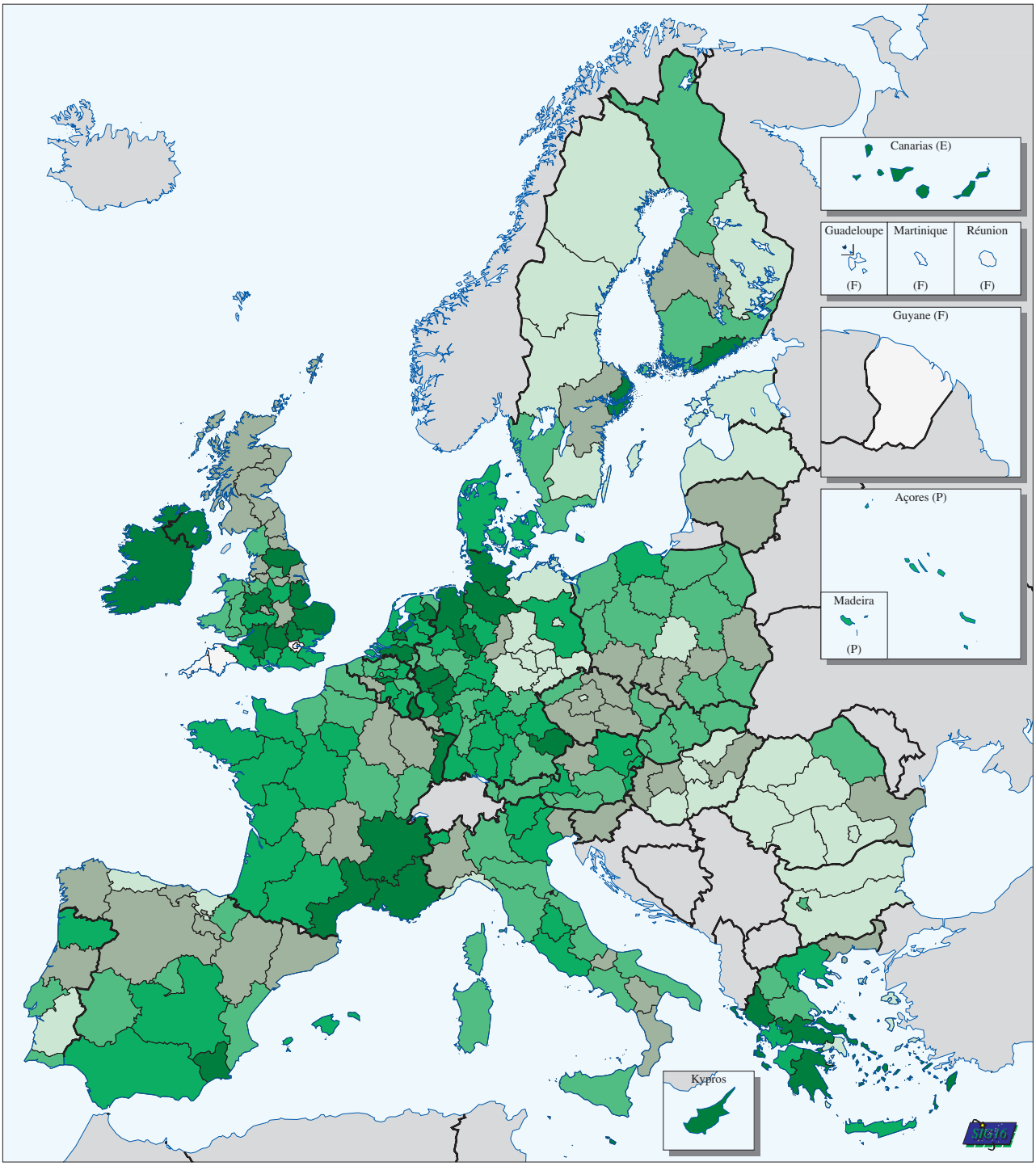
A.10 Border regions

Categories

- Non-border regions
- Internal EU15 borders
- Borders between accession candidates
- Borders between EU members and accession candidates
- Borders with external countries

EU15: Interreg 3A regions
Candidates: level 3 regions
PL: old level 3 regions

0 100 500 km



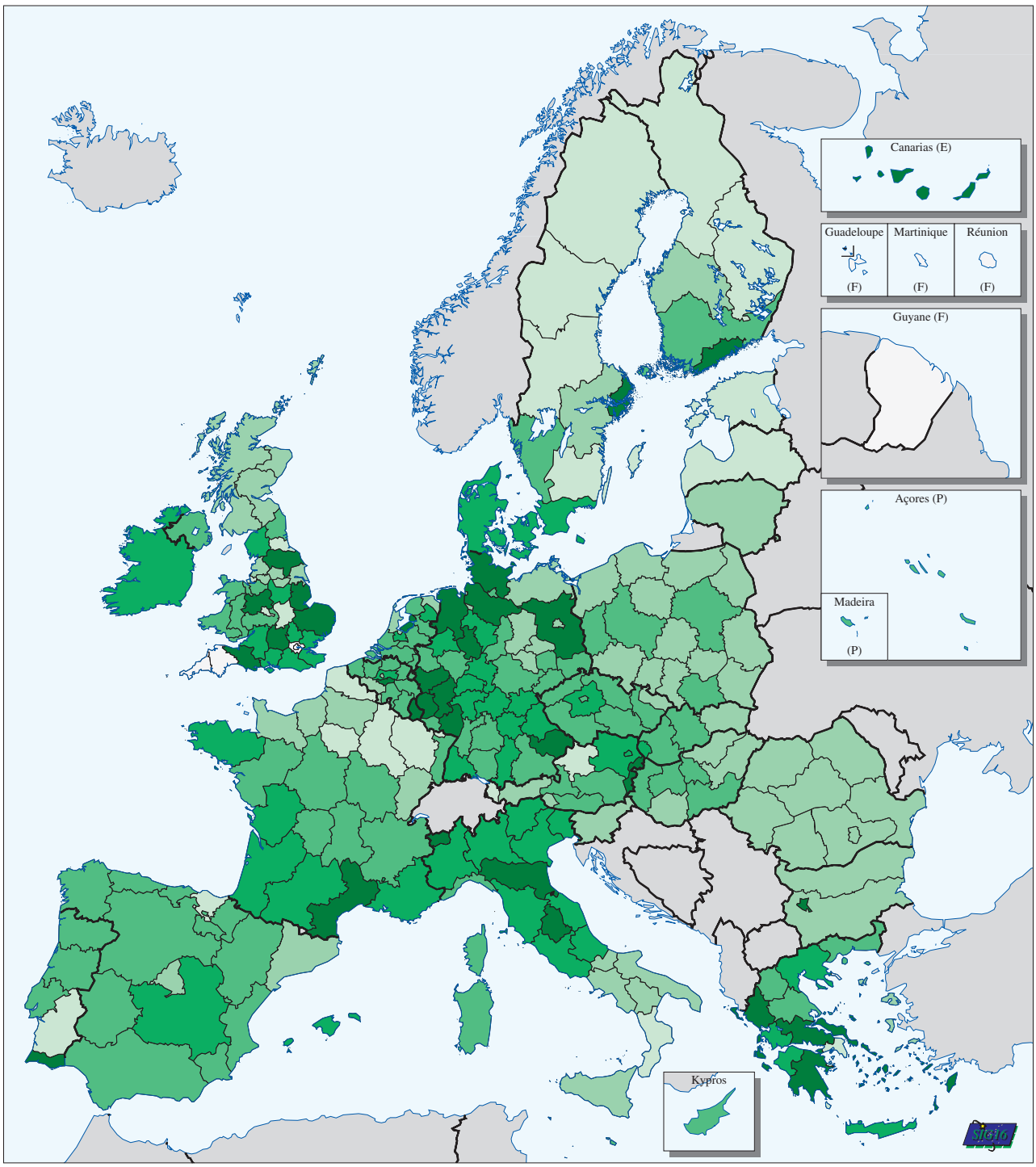
A.11 Crude rate of total population change, average 1995-1997

< -3
-3 - 0
0 - 3
3 - 6
> 6
no data

Sachsen, Wales, Scotland: NUTS1
IRL: NUTS0

Source: Eurostat

0 100 500 km



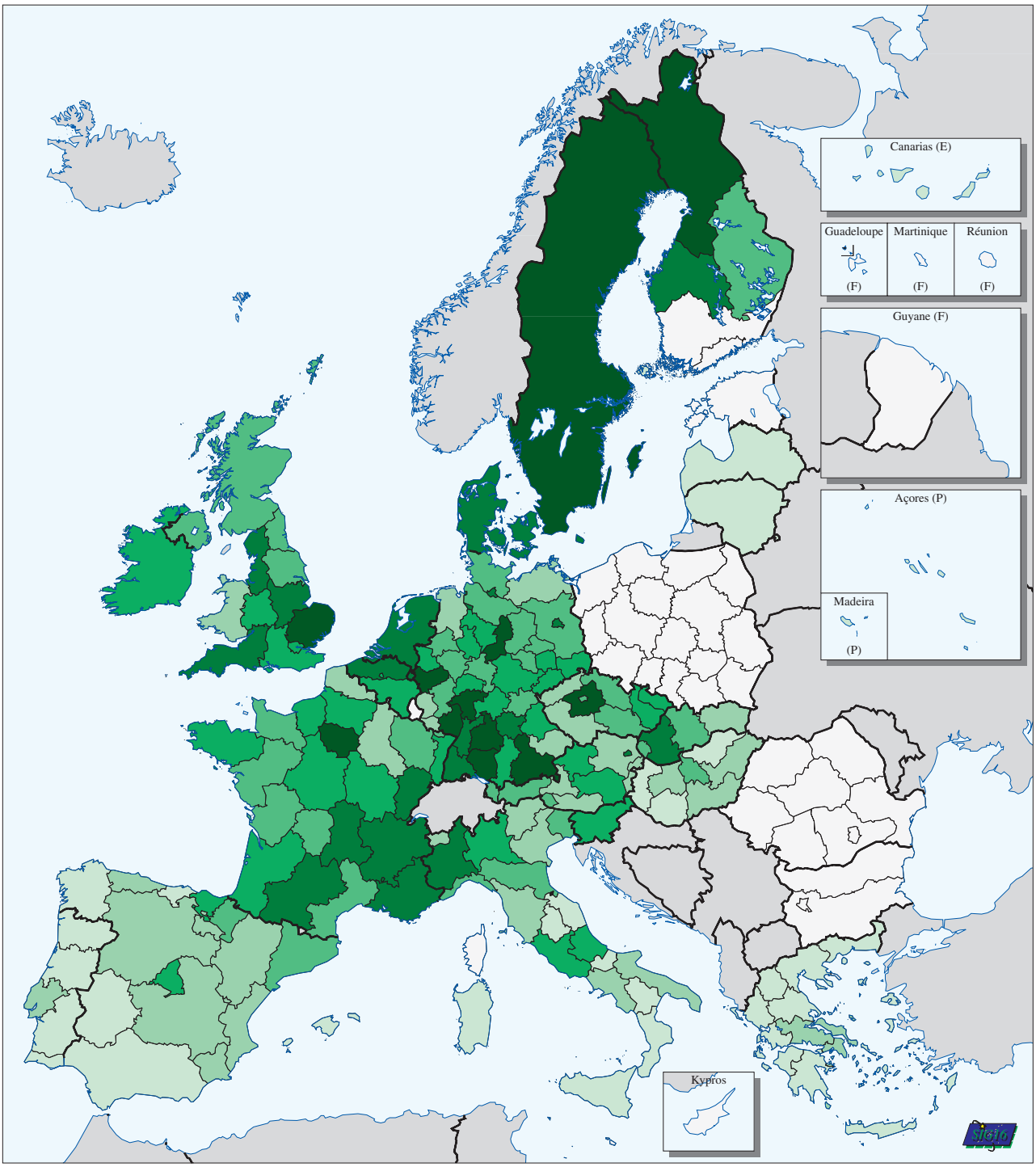
A.12 Crude rate of net migration, average 1995-1997

< -2.5
-2.5 - 0.0
0.0 - 2.5
2.5 - 5.0
> 5.0
no data

Sachsen, Wales, Scotland: NUTS1
IRL: NUTS0

Source: Eurostat

0 100 500 km



A.13 Business enterprise expenditure on RDT, 1997

% of total GDP

- < 0.15
- 0.15 - 0.40
- 0.40 - 0.70
- 0.70 - 1.10
- 1.10 - 2.00
- ≥ 2.00
- no data

average = 1.17
Standard deviation = 0.92

F, NL: 1996
B, D, IRL, LT: 1995
EL, A: 1993
UK: estimates
Source: Eurostat

BE, UK: NUTS1
IRL, NL, SE: NUTS0

0 100 500 km

Table A.1 GDP and population growth in cohesion countries, 1988-2000

	Period	EL	E	IRL	P	EU3 (1)	EU12 (2)	EU15 (2)
Annual average % change in GDP	88-98	1,9	2,6	6,4	3,0	2,5	1,9	2,0
	88-93	1,2	2,0	4,4	2,6	2,0	1,7	1,7
	93-98	2,6	3,1	8,5	3,4	3,1	2,3	2,4
estimates	*98-00*	*3,6*	*3,9*	*8,7*	*3,3*	*3,8*	*2,8*	*2,9*
Annual average % change in population	88-98	0,5	0,1	0,5	0,0	0,2	0,4	0,4
	88-93	0,7	0,1	0,2	-0,2	0,2	0,6	0,5
	93-98	0,3	0,1	0,7	0,2	0,2	0,3	0,3
estimates	*98-00*	*0,6*	*0,1*	*1,0*	*0,2*	*0,2*	*0,3*	*0,3*
GDP per head (PPS), EU15=100	1988	58,3	72,5	63,8	59,2	67,8	106,6	100,0
	1989	59,1	73,1	66,3	59,4	68,4	106,4	100,0
	1990	57,4	74,1	71,1	58,5	68,6	106,4	100,0
	1991	60,1	78,7	74,7	63,8	73,0	105,2	100,0
	1992	61,9	77,0	78,4	64,8	72,3	105,3	100,0
	1993	64,2	78,1	82,5	67,7	74,0	105,0	100,0
	1994	65,2	78,1	90,7	69,5	74,4	104,9	100,0
	1995	66,1	78,4	93,3	70,9	75,0	104,8	100,0
	1996	66,9	79,5	94,1	71,1	75,9	104,6	100,0
	1997	66,0	80,0	103,8	74,3	76,6	104,5	100,0
	1998	66,0	81,1	108,2	75,3	77,5	104,3	100,0
	1999	66,8	82,5	114,0	76,1	78,7	104,1	100,0
estimates	*2000*	*67,3*	*83,1*	*118,9*	*75,3*	*79,0*	*104,0*	*100,0*

(1) EL + E + P

(2) Growth rates 1988-98 and 1988-93: excluding new German Länder

Source: Eurostat (national accounts) and calculations DG REGIO

Table A.2 Disparities in GDP per head in PPS by region within Member States, 1988-1998

(standard deviation of index EU15=100)

Member State	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
B	24,5	24,7	25,1	25,1	26,0	27,1	25,9	25,3	25,7	25,7	25,7
D	:	:	:	38,6	35,8	32,4	31,3	26,7	26,7	26,5	26,8
D excl. new Länder	21,0	21,0	21,8	*22,7*	*23,0*	*22,8*	*23,4*	*21,6*	*22,3*	*22,2*	*22,3*
EL	6,1	6,5	6,3	6,1	6,6	7,6	7,8	10,4	10,2	10,1	10,2
E	13,9	14,9	14,9	16,0	15,9	15,2	15,9	17,1	17,7	18,4	19,1
F	28,6	28,6	28,9	29,9	28,9	29,9	30,8	28,2	28,2	27,0	26,5
IRL	:	:	:	:	:	:	:	13,9	14,0	16,8	17,3
I	25,7	25,8	24,8	24,7	24,9	24,7	25,5	28,6	28,7	27,8	27,6
NL	11,5	10,6	10,6	11,8	11,3	11,5	10,8	13,4	14,3	15,4	15,8
A	27,5	27,0	27,5	28,6	28,7	30,3	28,1	30,8	30,2	29,2	27,8
P	17,2	17,7	13,5	15,0	13,6	14,3	13,8	13,5	13,3	14,0	14,2
FIN	18,1	17,7	17,9	17,7	15,4	17,0	17,1	18,3	21,2	22,0	24,6
S	10,7	10,9	10,8	12,0	10,9	12,8	11,0	13,1	14,0	16,2	17,1
UK	21,2	20,7	20,2	19,2	19,6	20,6	18,3	31,4	31,7	33,4	33,9
EU15 (by region)	:	:	:	29,4	28,6	27,7	27,5	28,5	28,4	28,3	28,3
- excl. new Länder	26,7	26,4	26,5	*26,4*	*26,5*	*26,3*	*26,5*	*28,1*	*28,1*	*27,9*	*27,8*
EU15 (by Member State)	:	:	:	13,1	13,2	12,5	12,7	12,5	11,9	11,5	11,2
- excl. new Länder	15,9	15,3	15,4	*15,5*	*15,6*	*14,6*	*14,6*	*14,1*	*13,5*	*13,0*	*12,7*
EU15 (within Member States)	:	:	:	24,5	23,8	23,4	23,0	24,5	24,7	24,8	25,0
- excl. new Länder	20,7	20,7	20,6	*21,0*	*20,9*	*21,3*	*21,2*	*23,5*	*23,8*	*24,0*	*24,1*

Up to 1994: GDP (ESA79 figures) for NUTS2 regions (v.95); from 1995 on: GDP (ESA95 figures) for NUTS2 regions (v.98)
Source: Eurostat REGIO and calculations DG REGIO

Table A.3 Regional disparities in GDP per head and unemployment by Member State

Member State	GDP per head				Unemployment					Employment (average annual % change)
	PPS (EUR15=100)		Regional disparity (standard deviation)		% labour force		Regional disparity (standard deviation)			
	1988	1998	1988 **	1998	1989	1999	1989 **	1994 **	1999	1989-99
B	103,2	111,3	24,5	25,7	7,2	8,8	2,7	3,3	4,3	0,3
DK	105,3	118,9	:	:	7,6	5,6	:	:	:	0,3
D	:	107,7	:	26,8	:	8,9	:	4,0	4,3	:
D excl. new Länder	114,8	116,3	21,0	22,3	5,7	6,9	2,0	1,7	1,8	0,6
EL	58,1	66,0	6,1	10,2	6,7	11,7	1,7	2,4	2,0	0,8
E	74,0	81,1	13,9	19,1	17,4	16,1	5,4	5,4	5,7	1,3
F	108,4	98,6	28,6	26,5	9,3	11,4	1,8	2,0	2,5	0,4
IRL	65,9	108,1	:	17,3	14,9	5,9	:	:	0,7	3,3
I	100,2	101,1	25,7	27,6	10,0	11,7	6,6	6,2	7,9	0,2
L	139,1	175,8	:	:	1,7	2,4	:	:	:	2,6
NL	97,7	113,2	11,5	15,8	8,5	3,3	1,0	0,7	0,8	1,6
A	102,2	111,7	27,5	27,8	3,1 *	4,0	1,2 *	0,9	1,1	0,5
P	58,9	75,3	17,2	14,2	4,8	4,7	2,5	1,8	1,4	0,7
FIN	101,6	101,6	18,1	24,6	3,8	11,5	2,0	2,5	3,2	-1,1
S	109,7	102,4	10,7	17,1	1,7	7,6	0,7 *	1,1	1,6	-0,9
UK	98,7	102,2	21,2	33,9	7,4	6,1	3,6	2,4	2,6	0,2
EU15	100,0	100,0	26,7	28,3	8,4	9,4	5,2	6,0	5,5	0,5
*EU15 - coefficients of variation ****			*26,7*	*28,3*			*62,1*	*54,0*	*58,6*	

** National data*

*** Figures up to 1994 are based on the old NUTS 2 breakdown. Part of the changes in disparities within countries is due to changes in the NUTS breakdown. This effect is particularly important for the UK and Belgium, but also affects the figures for Finland and Sweden.*

**** Coefficient of variation = standard deviation as percentage of percentage*

Source : Eurostat and calculations DG REGIO

Table A.4 Investment (GFCF*) and GDP per head in EU27, 1998

	Investment as % GDP	GDP per head (EUR)	GFCF per head (EUR)
L	27,1	36557	7320
DK	24,1	29424	6130
S	22,4	23746	3790
D	22,8	23513	4940
A	21,5	23443	5640
NL	22,2	22511	4840
FIN	21,0	22285	4130
F	20,8	22094	3950
B	20,9	21890	4570
UK	20,0	20958	3730
IRL	18,5	20552	4600
I	18,5	18392	3410
E	17,8	13203	3010
EL	17,9	10268	2280
P	16,0	9581	2600
CY	36,6	12183	2154
SI	29,1	8796	1903
CZ	27,5	4869	1341
HU	25,3	4133	977
PL	24,4	3627	919
SK	23,6	3365	1231
EE	21,6	3196	930
LT	20,1	2586	630
LV	19,4	2334	468
RO	17,7	1639	318
BG	11,5	1327	153
Applicants	24,5	3639	893
EU15	19,7	20234	3990

** Gross fixed capital formation*

Table A.5 Persistent poverty by household type, 1993 to 1995

Index, 100=average % of households below poverty line

	B	DK	D	EL	E	F	IRL	I	L	NL	P	UK	EU12	EU12
Economic status														% total
Employed	36	40	88	66	80	66	44	92	86	81	75	51	74	5
Unemployed	406	47	191	144	232	477	439	339	-	434	137	373	320	23
Retired	153	307	92	244	129	121	67	57	149	25	243	154	116	8
Inactive	464	255	439	126	136	319	372	210	354	343	295	294	285	21
Type of household														
Single <65	82	152	109	69	75	126	154	47	90	234	153	75	93	7
Single>=65	196	465	136	270	66	155	99	109	215	50	312	203	150	11
Couple <65 with no no children	67	39	53	76	63	50	47	21	40	27	84	26	42	3
Couple >=65 with no no children	192	225	64	265	190	86	54	31	193	27	252	137	108	8
Single parent	136	-	188	105	86	161	234	95	63	189	126	288	180	13
Couple with 1 dependent child	35	28	37	24	43	46	38	70	116	21	32	45	46	3
Couple with 2 dependent children	84	-	136	38	97	49	50	77	57	81	88	60	82	6
Couple with 3 or more dep. children	84	78	121	40	218	162	180	225	177	185	194	146	150	11
Couple with dep. and non dep. children	102	99	110	90	107	126	69	140	69	124	62	30	111	8
Other	49	80	126	119	74	107	65	89	125	180	79	68	98	7
Education level *														
High	36	31	81	10	17	20	4	13	32	33	4	21	36	3
Middle	88	90	104	25	55	63	68	46	94	117	21	82	73	5
Low	174	254	110	185	136	201	163	138	141	144	120	192	163	12

Persistent poverty is defined as having an income below 60% of the median in the country in question in each of the three years 1993 to 1995
A, FIN and S: no data available
** Highest education level of head of household and/or partner.*
Source: ECHP, 1996

Table A.6 Indicators for regions grouped according to peripherality, EUR27, 1998/1999

Indicator	*Units*	*Central regions*	*Peripheral regions*	*Other regions*	*Total*
Total population	000s	159619	198583	122295	480497
	% total	33,2	41,3	25,5	100,0
Land area	Square kms	593315	2750344	896537	4240196
	% total	14,0	64,9	21,1	100,0
Population density	Inhabitants per square km	269	72	136	113
Population growth, 1991-98	Annual % change	0,4	0,0	0,3	0,2
Population by age group	% total				
<15		18,1	18,2	15,9	17,6
15 - 64		66,7	67,7	67,1	67,2
65+		15,2	14,1	17,0	15,2
Unemployment rate(1)	(% labour force				
Total		7,1	11,6	9,7	9,6
Women		7,4	13,4	11,7	10,9
Young		11,5	25,5	18,1	19,0
Long-term unemployment	% unemployed	45,3	46,0	45,2	45,6
GDP per head(2)	PPS	22422	11735	20442	17506
	Index, average=100	128,1	67,0	116,8	100,0
GDP per head(2)	EUR	23465	8419	20623	16523
	Index, average=100	142,0	51,0	124,8	100,0
GDP (EUR)	% total	47,2	21,1	31,8	100,0
GDP per person employed(4)	EUR	52052	21255	48990	39359
	Index, average=100	132,2	54,0	124,5	100,0
Employment rate	% population 15-64				
Total(2)		67,1	58,7	61,8	62,3
Women(5)		59,0	49,2	52,6	53,4
Men(5)		75,2	68,1	71,1	71,3
Employment by sector(2)	% total employment				
Agriculture		2,2	16,3	4,4	8,4
Industry		29,1	30,4	30,2	29,9
Services		68,7	53,4	65,4	61,8
Education level 25-59 age group(6)	% total				
Low		25,6	38,1	35,1	33,0
Medium		50,0	46,0	46,8	47,6
High		24,3	15,9	18,2	19,4
R&D expenditure by firms(7)	% GDP	1,9	1,0	1,5	1,6
R&D expenditure by firms	% total R&D expenditure	69,8	54,3	62,4	65,8
Length of motorways and dual carriageways(2),(3)	Composite index (population+land area)	214,8	48,5	140,5	100,0
Length of railway line	Composite index (population+land area)	133,4	91,8	118,1	100,0
Electrified railway line	% total	49,5	38,2	48,7	44,1
Double track railway line	% total	54,0	22,0	41,0	35,8
Emissions of sulphur dioxide (SO_2)	Index, EUR27=100	121	104	74	100
Emissions of nitrogen dioxides (NO_2)		239	62	125	100
Emissions of ammonia (NH_3)		172	68	150	100
Emissions of SO_2, NO_2 and NH_3 (average)		177	78	116	100
Pressure from urbanisation, transport and intensive agriculture(8)	Index, EUR27=100	292	39	143	100

Data for the employment, unemployment and education levels are for 1999. All other data are for 1998 (earlier years for some countries)
All data exclude the French DOMs; peripheral regions include Czech Republic
(1) Data for women and young people exclude Cyprus and Malta; data on long-term unemployment exclude Cyprus, Malta and Lithuania
(2) Excl. MT
(3) Excl. CY
(4) Excl. SI
(5) Excl. BG, CY and MT
(6) Excl. BG, CY, LT, MT, SK
(7) Excl. Corse (F), L, S, BG, CY, EE, MT, PL et RO
(8)) Excl. Baltic States, Slovenia, Cyprus and Malta
Source: Eurostat, national statistical institutes; for the enviromental indicators: EMEP/MSC-W, INDUROT - ESDP study programme; calculations DGREGIO

Table A.7 Centres of development in the US, 1998

	GDP per head	Surface area	Population	GDP
	Index, US=100	% US total		
East Coast	116,0	5,0	19,3	22,3
South of the Great Lakes	108,2	4,0	6,2	6,7
South (Texas)	102,8	7,3	7,3	7,5
West Coast	105,5	11,8	16,1	16,9
Total above	***109,6***	***28,1***	***48,8***	***53,5***
Other States	*90,9*	*71,9*	*51,2*	*46,5*
Total US	*100,0*	*100,0*	*100,0*	*100,0*

Source: US DoC-BEA and calculations DG REGIO

Table A.8 Indicators by degree of urbanisation and Member State, 1999

	Urban areas	Intermediate areas	Rural areas	Total
Unemployment rate (% labour force)				
B	11,0	6,0	6,6	8,6
DK	5,5	4,5	5,3	5,1
D	9,7	7,0	10,0	8,9
EL	13,5	9,9	7,3	11,7
E	15,6	16,2	15,5	15,7
F	13,3	11,6	10,9	12,1
IRL	5,5	:	5,8	5,7
I	12,9	10,1	12,0	11,7
L	3,4	2,0	1,8	2,4
NL	3,6	3,7	4,2	3,6
A	5,9	3,8	4,1	4,7
P	6,1	3,1	4,4	4,6
FIN	8,9	13,1	12,9	11,7
S	6,2	6,3	8,3	7,6
UK	6,9	4,7	5,5	6,1
EU12	*10,3*	*7,9*	*10,1*	*9,6*
EU15	**10,1**	**7,8**	**9,9**	**9,4**

	Urban areas	Intermediate areas	Rural areas	Total
Unemployment rate of women (% female labour force)				
B	12,2	7,8	9,9	10,3
DK	5,5	5,3	6,7	5,9
D	9,3	7,9	11,7	9,3
EL	20,3	16,9	12,0	18,2
E	22,0	24,9	24,1	23,1
F	14,2	13,9	13,9	14,0
IRL	4,6	:	6,2	5,5
I	16,9	15,1	18,0	16,4
L	4,2	2,8	3,3	3,3
NL	4,4	5,6	6,3	4,9
A	5,5	4,7	4,2	4,8
P	6,1	4,2	6,3	5,4
FIN	8,6	13,8	14,4	12,5
S	5,3	5,5	7,7	6,9
UK	5,8	4,3	4,7	5,2
EU12	*11,4*	*10,0*	*13,2*	*11,4*
EU15	**11,2**	**9,9**	**12,4**	**11,1**

	Urban areas	Intermediate areas	Rural areas	Total
Long-term unemployment (% total unemployed)				
B	63,5	53,6	61,9	60,5
DK	19,6	18,1	22,3	20,3
D	52,2	49,0	49,8	50,8
EL	56,1	51,4	53,3	55,3
E	51,2	47,4	36,1	46,3
F	42,0	40,0	33,2	38,7
IRL	:	:	:	:
I	67,1	57,1	48,5	60,6
L	28,9	41,5	18,2	32,3
NL	38,2	36,9	36,5	37,7
A	39,9	29,2	20,5	31,2
P	41,8	39,5	40,2	40,9
FIN	21,8	23,5	21,9	22,3
S	22,5	34,4	29,8	29,1
UK	30,9	24,1	32,2	29,6
EU12	*49,1*	*46,2*	*39,4*	*46,3*
EU15	**48,7**	**45,7**	**37,7**	**45,3**

	Urban areas	Intermediate areas	Rural areas	Total
Participation rate (% population 15-64)				
B	64,1	65,1	64,7	64,6
DK	81,9	80,1	79,9	80,6
D	70,2	71,2	73,5	71,2
EL	61,5	63,7	67,7	62,9
E	63,0	61,4	61,1	62,1
F	68,3	68,3	69,5	68,8
IRL	68,2	:	65,3	66,4
I	59,3	59,7	60,0	59,6
L	64,8	61,5	64,3	63,1
NL	74,0	73,2	71,5	73,6
A	73,0	70,5	70,9	71,6
P	70,7	71,8	69,6	70,9
FIN	79,6	77,2	74,7	76,4
S	77,8	79,2	77,6	76,4
UK	74,0	77,9	75,0	75,2
EU12	*68,0*	*68,5*	*68,5*	*68,3*
EU15	**68,3**	**68,7**	**69,4**	**68,6**

	Urban areas	Intermediate areas	Rural areas	Total
Youth unemployment rate (% labour force 15-24)				
B	27,2	17,1	23,6	22,6
DK	10,8	8,2	10,5	10,0
D	10,3	7,3	8,4	8,9
EL	34,5	28,4	24,8	31,7
E	31,1	29,6	26,5	29,5
F	26,8	27,1	25,9	26,5
IRL	8,2	:	8,5	8,4
I	38,2	28,2	31,5	32,9
L	8,6	6,4	3,5	6,8
NL	6,8	8,4	7,5	7,4
A	8,3	5,1	4,8	5,9
P	11,4	5,9	11,1	9,1
FIN	20,7	30,0	32,7	28,6
S	16,2	12,6	16,9	16,3
UK	13,6	10,4	11,3	12,5
EU12	*19,5*	*16,1*	*18,8*	*18,4*
EU15	**19,4**	**16,0**	**18,7**	**18,3**

	Urban areas	Intermediate areas	Rural areas	Total
Employment in services (% total)				
B	76,6	66,4	70,8	71,8
DK	81,1	67,7	61,5	69,8
D	68,8	58,8	57,3	63,3
EL	72,9	53,8	28,4	60,9
E	69,9	60,3	48,0	62,0
F	78,5	68,9	59,5	69,4
IRL	75,4	:	55,6	63,4
I	69,7	56,4	56,1	62,2
L	78,5	77,1	70,0	76,0
NL	79,0	67,5	65,3	74,5
A	74,5	61,8	56,1	64,2
P	64,2	44,1	50,0	53,6
FIN	78,7	71,9	58,5	66,0
S	83,8	75,8	68,0	72,3
UK	74,3	70,2	67,6	72,3
EU12	*72,7*	*61,9*	*56,9*	*66,2*
EU15	**72,9**	**62,2**	**57,7**	**66,3**

Source: Eurostat, Labour Force Survey

Table A.9 Indicators by degree of urbanisation and GDP per head, 1999

		Urban areas	Intermediate areas	Rural areas	Total
Unemployment rate (% labour force)					
	<75	17,1	15,2	15,6	16,2
GDP per head (PPS),	75-100	10,3	7,7	9,5	9,4
EU15=100	>=100	8,0	5,3	5,7	6,9
	EU15	10,1	7,8	9,9	9,4
Unemployment rate of women (% female labour force)					
	<75	20,8	21,0	21,0	20,9
GDP per head (PPS),	75-100	11,1	9,2	11,4	10,7
EU15=100	>=100	8,7	6,7	7,5	8,0
	EU15	11,2	9,9	12,4	11,1
Youth unemployment rate (% labour force 15-24)					
	<75	33,4	28,7	24,2	29,3
	75-100	19,5	16,0	20,5	18,9
	>=100	14,6	10,6	10,5	12,8
	EU15	19,4	16,0	18,7	18,3
Long-term unemployment (% total unemployed)					
	<75	60,7	54,6	44,3	54,4
GDP per head (PPS),	75-100	40,8	42,0	34,1	38,8
EU15=100	>=100	46,5	40,5	33,0	43,7
	EU15	48,7	45,7	37,7	45,3
Participation rate (% population 15-64)					
	<75	62,7	62,3	65,8	63,5
	75-100	68,9	70,2	70,2	69,7
	>=100	69,7	70,1	71,0	70,0
	EU15	68,3	68,7	69,4	68,6
Part-time employment (% total employed)					
	<75	10,2	9,8	9,6	9,9
GDP per head (PPS),	75-100	20,2	20,9	18,6	19,8
EU15=100	>=100	18,2	17,7	16,9	17,9
	EU15	17,6	17,6	16,2	17,3

GDP per head data are for 1998
Source: Eurostat, LFS

Table A.10 Changes in the number unemployed and employment by sector in urban areas, 1995-1999

average annual % change

	Unemployed	Employment			
		Agriculture	Industry	Services	Total
B	0,5	-8,9	-2,7	1,7	0,5
DK	-4,3	-3,1	-1,3	1,7	1,1
D	1,8	-3,4	-2,4	0,4	-0,5
EL	7,7	-4,7	0,1	2,3	1,6
E	-8,3	0,4	3,8	3,4	3,5
F	0,8	-4,4	-0,5	1,2	0,8
IRL	-18,1	1,0	4,6	6,4	5,9
I	-0,6	-16,4	-0,9	1,1	0,1
L	:	:	:	:	:
NL	-16,4	-2,6	1,9	3,1	2,8
A	3,4	4,9	-3,2	0,4	-0,5
P	-13,6	-8,0	-3,7	-6,5	-5,6
FIN	-8,6	1,6	4,2	3,6	3,7
S	-5,2	2,3	-5,9	-0,9	-1,8
UK	-8,2	0,0	-0,8	1,8	1,1
EU15	-3,1	-6,4	-0,8	1,3	0,6

Source: Eurostat, LFS

Table A.11 Changes in the number unemployed and employment by sector in rural areas, 1995-1999

average annual % change

	Unemployed	Employment			
		Agriculture	Industry	Services	Total
B	21,1	-12,0	3,0	12,6	7,4
DK	-8,0	-5,8	0,7	1,1	0,4
D	5,4	-2,9	-0,4	2,5	1,0
EL	12,4	-6,6	1,3	0,2	-3,7
E	-6,5	-3,8	3,4	4,0	2,0
F	2,1	-2,8	0,7	1,3	0,7
IRL	-9,9	-6,2	7,4	7,0	5,0
I	1,3	-7,4	1,5	1,3	0,2
L	:	:	:	:	:
NL	-5,4	-5,0	1,4	3,6	2,1
A	2,3	-7,0	-1,7	1,3	-0,8
P	-2,3	-4,7	9,8	8,2	5,1
FIN	-5,7	-2,9	4,2	4,6	3,5
S	-0,5	-7,7	0,0	0,7	0,1
UK	-7,2	-8,0	1,2	0,6	0,2
EU15	-0,6	-4,8	1,2	2,1	1,0

Source: Eurostat, LFS

Table A.12 Socio-economic indicators for border regions

Indicators	UE15							Pays candidats							EUR27
	Total	Non-border regions	Border regions (Interreg 3A)					Border regions (level 3)				Non-border regions	Total		
			Total	*Borders within EU15*	*Borders with candidate countries1*	*Borders with other countries 2*	*All borders with candidate countries*	*All borders with EU*	*Borders with other candidate countries*	*Borders with other countries2*	*Total*				
Population															
000s	374537	281197	93340	66804	10596	15940	*12240*	*17213*	32177	11816	61206	44733	105940	480477	
% total group	100,0	75,1	24,9	17,8	2,8	4,3	*3,3*	*16,2*	30,4	11,2	57,8	42,2	100,0	:	
annual average % change	0,3	0,2	0,3	0,4	0,2	0,3	*0,2*	*:*	:	:	:	:	-0,1	0,2	
Surface area															
square kms	3191120	1944843	1246277	873667	91203	281408	*116522*	*196635*	364751	155976	717362	368713	1086075	4277195	
% total group	100,0	60,9	39,1	27,4	2,9	8,8	*3,7*	*18,1*	33,6	14,4	66,1	33,9	100,0	:	
Population density (nos per square km)	117	145	75	76	116	57	*105*	*88*	88	76	85	121	98	112	
Unemployment rate (1999, %)	9,4	9,4	9,3	8,5	9,4	13,0	*9,0*	*:*	:	:	:	:	10,3	9,6	
GDP per head (PPS, 1998, EUR26 = 100)	116	117	111	115	115	95	*115*	*53*	42	37	44	43	44	100	
Land use (excl. FIN, S, CY, MT)															
% artificial surface (built-up areas, etc) in total surface area	4,1	4,3	3,6	3,6	3,9	3,1	*3,9*	*3,1*	4,3	3,8	3,9	4,5	4,1	4,1	
% agricultural area in total	56,5	58,7	51,5	52,3	52,3	46,3	*52,3*	*51,1*	59,2	54,5	56,1	59,5	57,3	56,8	
Length of motorways															
Composite indicator (population and land area) (Index EU27=100)	121,9	124,7	115,1	128,1	94,9	75,8	*97,8*	*27,7*	17,6	20,2	20,7	26,0	22,7	100,0	

1 Excl. regions bordering the EU
2 Excl. regions borderig the EU and the candidate countries

Border regions:
For the EU: regions (NUTS 3) eligible for INTERREG 3A
For the candidate countries: border regions at NUTS 3 level (Poland: old level 3 regions, level 3 not having been defined yet)
Motorways: including main dual carriageways
Source: Eurostat, INS, Corine Land Cover, DG REGIO calculations

Table A.13 Mountain and arctic areas: land area eligible for Objectives 1 and 2, 2000-2006

	% total moutain areas
Objective 1	61,5
Phasing-out of Obj. 1 or special programme	*3,1*
Objective 2	24,7
Phasing-out of Obj. 2	*5,8*
Non-eligible	4,9
Total mountain areas	100,0
Mountain areas as % total EU15 land area	38,8

Sources: DG AGRI-SIG, DG REGIO-GIS

Table A.14 Population in mountain regions (*)

	Population 1998	
	1000s	% total
GDP/head (PPS) 1998, index, EU15=100		
<50	1970	3,6
50-75	18679	34,6
75-100	13198	24,4
100-125	15355	28,4
>=125	4835	8,9
total	*54038*	*100,0*
Unemployment (%), 1999		
<4.7	9278	17,2
4.7-9.4 (EU15 average)	14097	26,1
9.4-14.1	15306	28,3
14.1-18.8	8259	15,3
>=18.8	7098	13,1
total	*54038*	*100,0*

(*) NUTS 3 regions where over 50% of the surface area is mountainous (definition of disadvantaged regions - DG AGRI)

Source: DG AGRI, Eurostat, DG REGIO-GIS

Table A.15 Coastal areas in the European Union

	Land area of coastal regions	
	Square kms	% total MS land area
B	3140	10
DK	34944	81
D	24888	7
EL	24420	19
E	26546	5
F	45379	8
IRL	21007	30
I	44899	15
L	0	0
NL	17386	51
A	0	0
P	10845	12
FIN	28794	9
S	50672	12
UK	69629	29
EU15	402549	13

Definition of coastal areas: DG ENV
(definition based on proximity to the sea and altitude)
Source: DG ENV, Eurostat, DG REGIO

Table A.16 Population and eligibility of islands for Objectives 1 and 2, 2000-2006 (1)

	Total population in islands		Island population eligible under Structural Funds			
			% total island population			
	000s	% total MS population	Obj. 1	Phasing-out of Obj. 1 (2)	Obj. 2	Total Obj. 1+2 (3)
B	0	0,0	:	:	:	:
DK	66	1,3	0,0	0,0	95,1	95,1
D	188	0,2	64,9	0,0	35,1	100,0
EL	1265	12,3	100,0	0,0	0,0	100,0
E	2257	5,8	66,0	0,0	12,5	78,5
F	1653	2,8	81,3	15,1	1,6	98,0
IRL	3	0,1	80,8	19,2	0,0	100,0
I	7008	12,3	99,5	0,0	0,5	99,9
L	0	0,0	:	:	:	:
NL	23	0,1	0,0	0,0	0,0	0,0
A	0	0,0	:	:	:	:
P	489	5,0	100,0	0,0	0,0	100,0
FIN	105	2,1	16,0	0,0	58,8	74,8
S	113	1,3	0,0	0,3	95,7	96,0
UK	307	0,5	23,4	33,2	0,1	56,8
UE15	13478	3,7	87,4	2,6	4,7	94,7

(1)List of islands (for EU12) based on Eurostat 'Portrait of the islands.' For Sweden and Finland: estimates based on lists of inhabited islands with no land link and island municipalities.
(2) Transitional support at least until 2005 and special programme for the northern coast of Sweden.
(3) Including transitional support from Objective 1 and special programme
Source: Eurostat, DG REGIO

Table A.17 Indicators for island regions

Region	Population	Land area	Population density	Population change	GDP per head (PPS)	Unemployment rate (1999)			Accessibility (by lorry weighted by GDP)
	1998		1998	1991-98	1998	Total	Female	Youth	
	1000s	km²	inh./km²	% change p.a.	EU15=100	%	%	%	EU15=100
BORNHOLMS AMT	44,7	588	76,0	-0,3	88,7	8,6	10,7	16,7	9,9
IONIA NISIA	202,8	2307	87,9	0,9	55,7	5,5	8,1	20,7	2,0
VOREIO AIGAIO	183,5	3836	47,8	-0,6	60,8	11,3	15,6	30,1	1,2
NOTIO AIGAIO	270,8	5286	51,2	0,9	76,9	7,3	11,6	15,7	2,1
KRITI	563,0	8336	67,5	0,6	66,8	7,3	11,5	19,9	2,0
ISLAS BALEARES	736,9	5014	147,0	1,1	99,5	7,2	10,5	14,9	7,1
CANARIAS	1589,9	7242	219,5	0,9	77,1	14,4	20,5	29,8	:
CORSE	259,8	8680	29,9	0,5	77,0	14,3	18,8	24,8	19,3
GUADELOUPE	437,7	1705	256,7	1,2	52,4	:	:	:	:
MARTINIQUE	401,4	1128	355,9	1,3	59,8	:	:	:	:
RÉUNION	689,5	2520	273,6	1,7	50,0	:	:	:	:
SICILIA	5103,2	25707	198,5	0,4	65,2	24,8	36,2	60,2	9,9
SARDEGNA	1658,0	24090	68,8	0,1	76,3	21,9	31,7	56,7	7,0
AÇORES	244,4	2330	104,9	0,4	52,0	3,7	6,5	7,6	:
MADEIRA	259,9	779	333,7	0,4	57,5	3,4	4,4	7,0	:
ÅLAND	25,5	1527	16,7	0,5	122,2	2,1	2,4	:	7,0
GOTLANDS LÄN	57,7	3140	18,4	0,1	91,9	7,3	6,7	15,2	5,5
ISLE OF WIGHT	127,0	395	321,6	0,1	76,7	7,8	6,6	17,4	86,9
ISLE OF ANGLESEY	65,4	715	91,5	:	67,9	9,5	9,1	17,8	57,6
COMHAIRLE NAN EILAN (WESTERN ISLES)	27,9	3134	8,9	-0,7	77,1	8,9	5,9	12,2	1,9
ORKNEY ISLANDS	19,6	992	19,8	0,0	82,0	3,6	3,7	6,4	1,0
SHETLAND ISLANDS	22,9	1438	15,9	0,3	114,0	3,3	3,0	6,7	0,7
EU15		*3191120*	*117,4*	*0,3*	*100,0*	*9,4*	*11,0*	*17,8*	*100,0*

Islands corresponding to a NUTS3, NUTS2 or NUTS1 region
Source: Eurostat, IRPUD

Table A.18 Productivity by sector and country, 1998

GDP per person employed (EUR)

	Agriculture	Manufacturing, construction	Distribution, HORECA (1), Transport	Business, financial services	Communal services (2)	Total
EU15	**:**	**:**	**:**	**:**	**:**	47717
B	40927	65739	50507	107187	37967	57980
DK	41285	59975	50759	118310	43226	57329
D	23103	51150	35329	113750	38956	51278
EL	11724	25613	28053	88782	23715	27662
E	19093	36257	35022	76999	26924	35725
F	36423	58110	46012	105037	40143	55549
IRL	31143	69437	36617	101614	37195	51825
I	26632	45736	47235	102357	33559	48375
L	34215	79076	73425	157682	74700	94136
NL	36123	58102	39484	61516	32596	45207
A	7560	57613	41551	106994	42834	47711
P	6359	19419	21220	47250	21096	20918
FIN	29303	61829	49644	110720	34818	52831
S	35578	61467	46181	114004	34352	52636
UK	:	:	:	:	:	43993
BG	:	:	:	:	:	3426
CY	5279	29204	28962	77707	35853	28237
CZ	:	:	:	:	:	10176
EE	4892	6015	9040	16620	5616	7271
HU	:	10879	10939	32554	:	11340
LT	2769	6923	7193	15380	4513	5789
LV	1281	6423	6724	9811	4064	5213
MT	:	:	:	:	:	22861
PL	1739	11310	12308	17652	9308	9201
RO	1909	5321	7081	9023	3195	4185
SI	:	:	:	:	:	:
SK	4513	7103	12324	28179	4375	8374

GDP allocated between sectors according to value-added
(1) Hotels, restaurants, catering
(2) Public, administration, health, education, other services
Source: Eurostat and calculations DG REGIO

Table A.19 Capital stock, 1989 and 1999

EUR million (1999 prices)

	1989						1999					
	Net Capital Stock	Gross Capital Stock	Population (000)	NCS per head	NCS per employed	GCS per head	Net Capital Stock	Gross Capital Stock	Population (000)	NCS per head	NCS per employed	GCS per head
B	303306	536137	9928	30552	84583	54005	452389	771029	10214	44292	113455	75489
DK	316797	549552	5130	61756	120441	107130	417763	742244	5314	78622	154270	139688
D	4017994	6341880	78390	51257	146615	80902	6000812	9368420	82037	73148	166277	114197
EL	165950	324108	10058	16499	45207	32224	259856	457886	10522	24697	65958	43518
E	1000548	1678093	38757	25816	82050	43298	1438887	2253212	39394	36525	104472	57196
F	2226545	3862083	56270	39569	102388	68635	2972445	5173348	58973	50403	130631	87724
IRL	86874	144589	3515	24715	79301	41134	124679	201753	3735	33382	78276	54018
I	2532457	4115837	56649	44704	121699	72655	3111910	4873882	57613	54014	150935	84597
L	19006	33579	375	50697	123819	89567	36431	62189	429	84880	206874	144894
NL	575791	1012171	14805	38891	95483	68366	783393	1360567	15760	49707	103016	86329
A	409796	621443	7628	53722	115699	81468	652446	974717	8083	80720	177406	120591
P	152803	227353	9955	15349	33447	22838	264081	402395	9979	26462	54674	40322
FIN	410202	687623	4954	82796	168792	138791	342045	580807	5160	66292	146630	112567
S	534153	909778	8459	63147	117523	107553	552566	911030	8854	62406	136301	102891
UK	2351218	3879999	57258	41064	88539	67763	2999960	4776047	59280	50607	110670	80568
EU	15103440	24924224	362130	41707	97287	68827	20409663	32909524	375346	54376	131468	87678

Source: European Commission services

Table A.20 (a) Freight transport

million tonnes

Port traffic (major seaports)	1970	1980	1990	1997	1998	% change 1997-98
Rotterdam, NL	226	276	228	303	307	1,1
Antwerpen, B	78	82	102	112	120	7,1
Marseille, F	74	103	90	94	93	-0,9
Hamburg, D	47	63	61	77	76	-0,3
Le Havre, F	58	77	54	60	66	11,3
London, UK	64	48	58	56	56	1,2
Amsterdam, NL	21	34	47	57	56	-1,4
Tees & Hartelp., UK	23	38	40	51	52	0,4
Trieste, I	27	38	34	46	47	1,7
Genoa, I	53	51	44	46	46	0,0
Forth ports, UK	25	29	25	43	44	3,0
Wilhemshaven, D	22	32	16	36	44	20,5
Algeciras, E	8	22	25	37	42	12,9
Dunkerque, F	25	41	37	37	39	7,3
Bremen B'haven, D	23	25	28	34	35	1,5
Southampton, UK	28	25	29	33	34	3,6
Zeebrugge, B	8	12	30	32	33	2,7
Gothenburg, S	20	22	26	30	31	1,2
Liverpool, UK	31	13	23	31	30	-1,6
Milford Haven, UK	41	39	33	35	29	-16,6
Bilbao, E	11	21	25	22	26	18,0
Tarragona, E	4	19,8	24	31	26	-17,1
Dublin, IRL	7	7	8	17	19	10,1
Thessaloniki, EL	8	9	14	13	14	2,4
Kobenhavn, DK	6	7	9	11	12	10,4
Lisbon, P	9	14	14	12	11	-2,5
Helsinki, FIN	4	5	8	11	11	-4,8
Sum of above ports	951	1153	1192	1367	1399	2,3
Singapore				328	312	-4,6

Note: Piraeus, EL: n.a
Source: Institute of Shipping Economics and Logistics, Bremen

Table 20 (b) Container port traffic

000 TEU (1)

	1990	1995	1997	1998	% change 1997-98
Rotterdam, NL	3667	4787	5495	6011	9,4
Hambourg, D	1969	2890	3337	3547	6,3
Antwerpen, B	1549	2329	2969	3266	10
Felixstowe, UK	1436	1924	2237	2500	11,8
Gioia Tauro, I	0	16	1449	2126	46,7
Bremen B'haven, D	1198	1524	1538	1826	18,7
Algeciras, E	553	1155	1703	1812	6,4
Le Havre, F	858	970	1185	1319	11,3
Genoa, I	310	615	1180	1266	7,3
Barcelona, E	448	689	972	1095	12,7
Valencia, E	387	672	832	1005	20,8
Zeebrugge, B	342	528	648	776	19,8
La Spezia, I	450	965	616	732	18,8
Southampton, UK	345	681	806	891	10,5
Piraeus, EL	426	600	684	933	36,4
Marseille, F	482	498	622	660	6,2
Gothenburg, S	352	458	531	520	-2,1
Liverpool, UK	239	406	461	487	5,6
Helsinki, FIN	246	296	330	343	3,8
Copenhagen, DK	165	178	160	171	6,8
Sum of top 10 ports	11987	16899	22065	24768	12,3
Singapore	5224	11846	14100	15100	7,1
Hong Kong	5101	12550	14385	14900	3,6

(1) TEU = standard container unit (20 ft. container)

Table 20 (c) Container service maritime operators, 1998

Carrier	Country	TEU (1) in service
Maersk	DK	346123
Evergreen	Taïwan	280237
P&O Nedlloyd	UK/NL	250858
Mediterranean Shipping	CH/I	220745
Hanjin Shipping Co.	Korea	213081
Sea-Land	USA	211358
Cosco	China	202094
APL	Singapore /USA	201075
NYK	Japan	163930
MOL	Japan	133681

In 1999 Maersk and Sea-Land merged
(1) TEU = standard container unit (20 ft. container)
Source: Containerisation International Yearbook, Port of Rotterdam

Table 20 (d) Freight carried by mode of transport, 1970-98

000 mn tonnes per km.

	1970	1980	1990	1995	1996	1997	1998	% change p.a. 1990-98
Road	416	628	932	1146	1152	1205	1255	3,8
Rail	283	287	255	221	220	238	241	-0,7
Inland water-ways	103	107	108	114	112	118	121	1,4
Pipelines	66	91	75	83	85	85	87	1,9
Sea (intra EU)	472	780	922	1071	1073	1124	1167	3,0
Total	1340	1893	2293	2635	2641	2770	2870	2,8

Source: EUROSTAT, ECMT, UIC, national statistics

Table A.21 RTD indicators for the EU

Indicator	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU15	Cohesion countries	Other MS
GDP per head, PPS, EU=100, 1998	111	119	108	66	81	99	108	101	176	113	112	75	102	102	102	100	79	104
Gross RTD expenditure (% GDP) (1)	1,84	1,93	2,29	0,51	0,90	2,19	1,40	1,02	:	2,04	1,49	0,63	2,89	3,77	1,82	1,86	0,85	1,98
EU15=100	*99*	*104*	*123*	*27*	*48*	*118*	*75*	*55*	:	*110*	*80*	*34*	*155*	*203*	*98*	*100*	*46*	*106*
Business RTD expenditure (% GDP) (1)	1,31	1,21	1,55	0,13	0,47	1,36	1,03	0,55	:	1,11	0,84	0,14	1,94	2,87	1,2	1,18	0,43	1,27
EU15=100	*111*	*103*	*131*	*11*	*40*	*115*	*87*	*47*	:	*94*	*71*	*12*	*164*	*243*	*102*	*100*	*37*	*108*
Business as % gross expenditure	71,4	62,6	67,8	25,6	52,1	62,0	73,7	53,7	:	54,1	55,9	22,5	67,2	76,2	65,8	63,7	50,5	64,3
Total RTD personnel as % total (2)	1,22	1,99	1,48	0,75	1,02	1,46	1,17	0,81	:	1,45	1,16	0,61	2,43	2,35	1,28	1,27	0,91	1,34
EU15=100	*96*	*157*	*117*	*59*	*80*	*115*	*92*	*64*	:	*114*	*91*	*48*	*191*	*185*	*101*	*100*	*72*	*105*
Private RTD personnel as % total (2)	0,63	1,00	0,84	0,11	0,26	0,71	0,50	0,30	:	0,61	0,47	0,08	1,29	1,21	0,60	0,59	0,22	0,66
EU15=100	*107*	*169*	*142*	*19*	*44*	*120*	*85*	*51*	:	*103*	*80*	*14*	*219*	*205*	*102*	*100*	*37*	*112*
European patent applications per million people, average 1997-98-99	123	139	227	6	18	116	52	60	145	166	125	3	222	269	95	119	16	140

(1) 1998, except B, EL, IRL, NL, P: 1997; A: 1993
(2) 1998, except P: 1997; F, I, NL: 1996; B, IRL: 1995; EL, A, UK: 1993
Source: Eurostat

Table A.22 Price dispersion in the EU (broad sectors)

Sector	Coefficient of variation (%) 1993	1997
Aggregate price level	16	15
Manufacturing	15	9
Electricity, gas and water	24	26
Construction	26	23
Services	26	19
Wholesale and retail trade	33	30
Hotels and restaurants	21	18
Transport, storage and communications	26	18

Source: Commission services

Table A.23 : Industries grouped by levels and changes in concentration (average 1994-97 compared to average 1970-73)

Concentrated industries that have remained concentrated	**Concentrated industries that have become less concentrated**
Motor Vehicles	Drink
Motor Cycles	Tobacco
Aircraft	Office & Computing Machinery
Electrical engineering	Mechanical engineering
Chemical products, NEC	Radio-TV & Communications
Petroleum & Coal Products	Instrument engineering
Dispersed industries that have become more concentrated	**Dispersed industries that have stayed dispersed**
Textiles	Food
Clothing	Wood Products
Leather & leather goods	Paper & Paper products
Furniture	Printing & Publishing
Transport equipment, NEC	Metal Products
	Non-Metallic minerals, NEC
	Shipbuilding
Residual group	
Footwear	Pottery & China
Industrial chemicals	Glass & Glass products
Pharmaceuticals	Iron & Steel
Petroleum refineries	Non-Ferrous Metals
Rubber products	Railway equipment
Plastic products	Other Manufacturing

Source: Midelfart-Knarvik, H-K, Overman, H, Redding, S, Venables, A.J, *The location of European industry*, *Report prepared for DG ECFIN, Economic Paper No. 142, Brussels, 2000*

Table A.24 EAGGF-Guarantee expenditure by Member State (in ascending order), 1988-98

1988			1993			1998		
Lowest								
	EUR mn	%		EUR mn	%		EUR mn	%
L	3	0	L	7,3	0	L	17,4	0
P	**156,7**	**0,6**	**P**	**478,1**	**1,4**	FIN	575,7	1,5
B	721,4	2,7	B	1 298.7	3,7	**P**	**637,4**	**1,6**
IRL	1 080.3	4,1	DK	1 334.7	3,8	S	770,1	2
Highest								
	EUR mn	%		EUR mn	%		EUR mn	%
NL	3 831.6	14,5	**E**	**4 175.7**	**12**	I	4 129.2	10,7
I	4 346.9	16,5	I	4 765.4	13,7	**E**	**5 293.5**	**13,7**
D	4 903.9	18,6	D	4 976.2	14,3	D	5 553.0	14,3
F	6 191.5	23,5	F	8 184.8	23,6	F	9 007.2	23,2
European Union								
EU 12	26 400.2	100	EU 12	34 748.2	100	EU 15	38 747.9	100

Source : 28th financial report of the EAGGF-Guarantee

Table A.25 EAGGF-Guarante expenditure relative to number employed in agriculture by Member State (in ascending order), 1988-98

1988		1993		1998	
Lowest					
	EUR th		EUR th		EUR th
P	0,2	P	0,8	P	1,3
L	0,5	L	1,5	I	2,5
EL	1,5	I	2,5	L	3,5
E	1,6	E	3,8	EL	4,4
Highest					
	EUR th		EUR th		EUR th
D	5,9	F	7,3	F	9,2
B	7,4	NL	9,9	S	9,6
DK	11,5	DK	14,4	B	11,1
NL	16,2	B	14,8	DK	14,6
European Union					
EU 12	3	EU 12	4,7	EU 15	5,7

Source: 28th financial report of the EAGGF-Guarantee and Economic accounts of agriculture

Table A.26 CAP net transfers, 1993 and 1998

EUR million at 1985 prices

	EUR mn		EUR per head		EUR per AWU*	
	1993	1998	1993	1998	1993	1998
B-L	-789,6	-743,5	-104,9	-110,6	-8490,1	-9066,9
D	-5912,1	-4031,7	-101,5	-77,6	-7362,5	-6349,1
I	-3036,7	-1969,8	-74,1	-54	-1597,4	-1201,9
NL	-42,6	-323,2	-3,9	-32,6	-180,5	-1423,9
A	:	-82,4	:	-16,1	:	-624,5
P	-246,4	-107,2	-34,7	-17	-404,6	-211
FIN	:	-41,6	:	-12,8	:	-338,6
S	:	-323,1	:	-57,7	:	-4038,7
UK	-2370,6	-1812,2	-56,7	-48,4	-5712,4	-4731,7
DK	548,4	395,7	147,1	118	5896,7	5009,4
EL	1190,6	892,2	159,9	134	1693,5	1535,6
E	196,2	1311,1	7	52,6	176,5	1179
F	282,6	1133,8	6,8	30,5	252,1	1155,7
IRL	944,2	1041	367,7	445	3885,8	5205

** AWU=annual work unit (ie hours of work of a full-time worker in a full year)*
Source: Study DG REGIO

Table A.27 20 regions with largest and smallest average size of unit and employment in agriculture, 1997

	European size unit*		% total employed		European size unit*		% total employed
	1997	*1997 / 1993*	*1997*		*1997*	*1997 / 1993*	*1997*
Voreio Aigaio (EL)	3,7	-8,0	24,2	West Midlands (UK)	48,6	29,0	1,9
Centro (P)	3,7	11,0	31,9	**Centre (F)**	49,2	26,0	6,5
Attiki (EL)	3,8	-23,0	1,0	Nord-Pas-de-Calais (F)	50,8	29,0	2,9
Dytiki Makedonia (EL)	4	22,0	23,4	Danmark (DK)	57,2	18,0	3,7
Ipeiros (EL)	4,1	-12,0	30,3	Yorkshire and Humberside (UK)	62,6	29,0	1,5
Madeira (P)	4,1	114,0	12,5	South East (UK)	65,5	45,0	1,7
Valle d'Aosta (I)	4,2	12,0	6,6	Oost-Nederland (NL)	68,6	25,0	4,2
Galicia (E)	4,2	-21,0	22,2	**Champagne-Ardenne (F)**	71,1	15,0	7,6
Nisia Ionia (EL)	4,4	-28,0	26,7	East Midlands (UK)	75,9	36,0	1,8
Asturias (E)	4,5	-29,0	11,1	**Picardie (F)**	78,6	24,0	5,3
Notio Aigaio (EL)	4,5	3,0	10,2	Noord-Nederland (NL)	84,2	21,0	4,9
Molise (I)	4,6	4,0	15,5	Zuid-Nederland (NL)	86,1	25,0	3,7
Kriti (EL)	4,7	-10,0	37,8	Sachsen (D)	87,3	28,0	2,9
Abruzzi (I)	4,8	-10,0	8,9	Ile-de-France (F)	89,3	27,0	0,4
Sterea Ellada (EL)	4,8	-11,0	31,8	**Brandenburg (D)**	95,1	-6,0	5,3
Dytiki Ellada (EL)	5	-7,0	41,5	West-Nederland (NL)	100,4	18,0	2,8
Lazio (I)	5,1	-16,0	4,6	Thüringen (D)	103,7	-9,0	3,9
Norte (P)	5,2	37,0	11,6	East Anglia (UK)	107,2	45,0	3,5
Calabria (I)	5,3	22,0	13,1	**Mecklenburg-Vorpommern (D)**	159,5	16,0	6,5
Baleares (E)	5,3	6,0	2,3	Sachsen-Anhalt (D)	165,6	5,0	4,4
EU 15	16,7	17,0	5,0				

Regions in bold have a share of employment in agriculture above the EU average
** European size unit is a measure of economic size in terms of the income generated.*
Source : Eurostat (Survey on the structure of agricultural holdings and LFS)

Table A.28 Average size, hectares

	Cooperatives (1)		State farms (2)		Other collective farms (3)	Individual and private holdings (4)	
	Pre-transition	*Most recent*	*Pre-transition*	*Most recent*	*Most recent*	*Pre-transition*	*Most recent*
Bulgaria	4 000	637	1 615	735	:	0,4	1,4
Estonia	4 060	:	4 206	:	449	0,2	19,8
Hungary	4 179	833	7 138	7 779	204	0,3	3,0
Lithuania	:	:	2 773	:	372	0,5	7,6
Latvia	5 980	:	6 532	340	309	0,4	23,6
Poland	335	222	3 140	620	333	6,6	7,0
Slovak Republic	2 667	1 509	5 186	3 056	1 191	0,3	7,7
Czech Republic	2 578	1 447	9 443	521	690	5,0	34,0
Romania	2 374	451	5 001	3 657	:	0,5	2,7
Slovénia	:	:	470	371	:	3,2	4,8

(1) Collectives pre-transition, currently being transformed into cooperatives, or private associations of producers
(2) State farms pre-transition, currently State farms and enterprises owned or controlled by the State
(3) Currently shareholder firms, limited companies and other economic entities
(4) Individual holdings before transition, currently undividually run (on part-time basis)
Source: Study DG AGRI

Table A.29 Commission recommendations on employment policy to Member States for 2001

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU
Long-term unemployment	x		x	x	x	x		x							x	7
Statistical system										x						1
Participation in employment		x	x			x	x		x							5
Tax and benefit system	x			x	x			x		x			x	x		7
Early retirement											x					1
Lifelong learning	x			x	x	x		x				x			x	7
Skills gap			x				x									2
Participation in education									x							1
Administrative burden				x		x						x				3
Fiscal pressure on labour	x	x	x			x					x		x	x		7
Partnership approach				x	x				x			x				4
Gender mainstreaming		x	x		x			x					x	x		6
Gender gap											x				x	2
Work and family												x				1
Policy mix	x			x				x							x	4
Total	5	3	5	6	5	5	2	5	3	2	3	4	3	3	4	58

Source: DG EMPL

Table A.30 Areas most dependent on fisheries (NUTS 3)

Country	Region Nuts 3	Dependency rate (Employed as % total employment)				No. of jobs fishing (catches)
		Fishing	Processing	Fish farming	Total*	
E	Pontevedra	6,8	1,6	3,9	15,1	17.070
EL	Lesvos	9,6	0,1	0,1	9,8	3.060
E	Huelva	7	1,7	0,2	9,8	4.270
EL	Lefkada	8,5	0	0,3	8,8	660
EL	Samos	8,2	0,1	0,1	8,3	1.140
P	Algarve	4,8	0,5	0,1	8,3	7.600
EL	Cyclades	7,9	0	0	8	2.640
E	A Coruña	2,1	1	2,8	7,3	6.760
EL	Chios	6,3	0	0,8	7,1	920
E	Taragona	5,4	0,1	0,4	6,1	2.230
E	Cadiz	4,2	0,5	0,2	5,8	4.370
P	Açores	4,4	1,2	0	5,6	3.900
EL	Cephalonia	4,6	0	0,8	5,4	570
E	Girona	4,7	0,3	0,1	5,3	2.120
I	Trapani	3,3	0,2	0,1	5,2	4.030
EL	Chalkidiki	5	0	0	5	1.660
UK	Highlands and Islands	1,9	1	1,3	4,2	2.880
D	Cuxhaven	0,5	3,4	0	4,1	280
F	Finistère	1,6	1,2	0,2	3,9	4.770
EL	Dodecanèse	3,6	0	2,2	3,9	2.210

** Figures show minimum dependency rates since data on jobs in the sector are not available in all regions*
Source: DG Fisheries

Table A.31 Population supported and extent of support in Objective 1 regions, 1994-99 and 2000-2006

	1994-1999		2000-2006	
	Eligible population (000s)	Support per head per year, EUR, 1999 prices	Eligible population (000s)	Support per head per year, EUR, 1999 prices
B	1285	103	0	0
DK	0	0	0	0
D	15452	160	14153	194
EL	10476	242	10476	286
E	23746	201	23219	232
F	2758	144	1644	283
IRL	3626	282	965	195
I	19634	137	19302	162
L	0	0	0	0
NL	277	98	0	0
A	275	133	275	135
P	9928	256	6616	348
FIN	838	121	1076	121
S	450	124	452	104
UK	3467	124	5079	143
EU15	92212	187	83258	220

1994-99 includes regions eligible for Objective 6
2000-2006 excludes phasing-out Objective 1 regions
Source: DG REGIO

Table A.32 Population supported and extent of support in Objective 2 regions, 1994-99 and 2000-2006

	1994-1999		2000-2006	
	Eligible population (000s)	Support per head per year, EUR, 1999 prices	Eligible population (000s)	Support per head per year, EUR, 1999 prices
B	1903	43	1269	41
DK	807	49	538	41
D	15445	40	10296	41
EL	0	0	0	0
E	9768	55	8809	41
F	24771	46	18768	41
IRL	0	0	0	0
I	11103	43	7402	41
L	177	19	118	41
NL	3499	44	2333	41
A	2992	35	1995	41
P	0	0	0	0
FIN	1876	53	1582	41
S	1729	37	1223	41
UK	20755	47	13836	41
EU15	94826	46	68170	41

1994-99 includes regions eligible for Objectives 2 and 5b
Source: DG REGIO

Table A.33 State regional aids and Structural and Cohesion Funds, 1996-98

	Total state aids in the EU (EUR mn, annual average)	Total state aids in support of regions, (EUR mn, current prices)			Total SF and Cohesion Funds (EUR mn, 1994 prices)		
		Annual average 1996-98	Regions Art.87(3)(a)*	Regions Art.87(3)(c)*	Annual average** 1996-98	Objective 1	Objective 2/5b
E	4709	266	60	206	7067	4383	513
EL	1306	585	585	:	2956	2330	:
IRL	688	229	229	:	1234	937	:
P	1471	35	35	:	2940	2330	:
Total EU4	8174	1115	909	206	14197	9980	513
A	1186	144	30	113	263	27	84
B	2532	241	0	241	349	122	70
DK	1356	10	0	10	141	0	29
D	26808	7846	7210	548	3622	2273	466
F	13887	1803	657	1146	2490	365	1001
FIN	500	66	0	66	276	0	62
I	15853	6421	6141	280	3608	2477	394
L	78	32	0	32	17	0	4
NL	1963	78	0	78	436	25	133
S	1570	194	0	194	217	0	49
UK	5881	876	234	642	2164	393	900
Total EU15	79788	18826	15181	3556	27780	15662	3705

** Article 87(3)(a) of the Treaty covers aid to promote the economic development of lagging regions; Article 87(3)(c) status covers aid to facilitate the development of certain economic activities or areas*
*** Including Community Initiatives*
Source: DG COMP, DG REGIO

Table A.34 Loans accorded by the European Investment Bank, 1994-1999

	In areas eligible for Structural Funds (EUR mn) *Distribution by objective and sector*										
	Transport	**Telecomms**	**Water/waste**	**Energy**	**Other Infra-structure**	**Total Infra-structure**	**Education/ health**	**Agric/Ind/ Services**	**Total individul loans**	**Global loans***	**Total**
Total regional development	**25019**	**10997**	**4075**	**11844**	**3574**	**55510**	**1652**	**9419**	**66581**	**19547**	**86127**
% Total regional	**29%**	**13%**	**5%**	**14%**	**4%**	**64%**	**2%**	**11%**	**77%**	**23%**	**100%**
of which:											
Obj 1, 6 (EUR mn)	12201	2306	1525	7438	2042	25512	1315	4136	30963	9388	40351
%	30%	6%	4%	18%	5%	63%	3%	10%	77%	23%	100%
Obj 2, 5b (EUR mn)	10834	519	2466	3679	1376	18873	337	4069	23280	10159	33438
%	32%	2%	7%	11%	4%	56%	1%	12%	70%	30%	100%
Other regional loans	**1984**	**8173**	**85**	**727**	**156**	**11124**		**1214**	**12338**		**12338**
Total	**38956**	**12120**	**7784**	**16771**	**4945**	**80577**	**1831**	**12096**	**94504**	**38570**	**133074**
Regional development as % total	**64%**	**91%**	**52%**	**71%**	**72%**	**69%**	**90%**	**78%**	**70%**	**51%**	**65%**

** The share of regional development in global loans was calculated according to the population in regions eligible for Structural Funds*
Source: EIB

Table A.35 Structural Funds: financial execution by Objective and Member State, 1994-1999

		B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EUR15
Obj.1	***Committed (%)***	100	0	100	99	99	98	99	100	0	99	100	99	0	0	94	99
	Paid (%)	72	0	81	73	82	67	87	67	0	67	77	89	0	0	67	78
Obj.2	***Committed (%)***	100	101	94	0	94	100	0	101	102	100	100	0	100	100	95	97
	Paid (%)	51	63	61	0	68	64	0	51	67	51	70	0	64	69	57	60
Obj.3	***Committed (%)***	100	100	99	0	100	99	0	100	98	100	100	0	100	100	100	100
	Paid (%)	86	91	81	0	89	79	0	63	94	71	85	0	76	82	84	80
Obj.4	***Committed (%)***	99	99	100	0	100	100	0	100	100	100	100	0	100	100	100	100
	Paid (%)	60	87	73	0	89	71	0	52	77	77	87	0	74	73	46	69

Source: DG REGIO

Table A.36 Contribution of Structural Funds to Objective 1 development expenditure, 1994-1999 and 2000-2006

EUR mn, 1999 prices

1994-1999	(including phase-out)														
	B	D	EL	E	F	IRL	I	NL	P	UK	A	FIN	S	EUR13	%
Infrastructure	**113**	**1288**	**6406**	**11580**	**790**	**1319**	**5932**	**39**	**5271**	**1060**	**46**	**0**	**39**	**33882**	**29,8**
Transport	38	:	3999	6648	384	1066	2061	34	3101	505	0	:	20	17857	**15,7**
ICT	12	:	251	456	0	28	568	0	385	43	5	:	19	1767	**1,6**
Energy	0	:	865	678	13	53	731	0	0	223	6	:	0	2568	**2,3**
Environment & water	59	:	622	3306	371	119	2464	5	1253	289	35	:	0	8524	**7,5**
Health & social	4	:	668	492	21	53	108	0	532	0	0	:	0	1878	**1,7**
Human resources	**106**	**4256**	**3287**	**7602**	**752**	**2730**	**2419**	**31**	**4753**	**1579**	**50**	**182**	**97**	**27844**	**24,5**
Education*	10		1881	2166	105	1291	355	0	1890	40	6	70	58	7871	**6,9**
Training	96	4256	1238	5436	647	1439	2064	31	2863	1539	44	112	40	19805	**17,4**
Other			169												**0,0**
Productive environment	**486**	**10010**	**4216**	**9336**	**965**	**3046**	**8581**	**74**	**7028**	**2112**	**130**	**378**	**211**	**46573**	**41,0**
Industry and services	291	5537	1009	4482	226	1286	4224	24	4060	1109	48	252	97	22644	**19,9**
RDTI	95	714	331	762	79	62	1157	12	504	215	10	0	14	3954	**3,5**
Agriculture, rural dev, fisheries	57	3759	2184	3504	566	1352	2649	33	2464	450	34	105	73	17230	**15,2**
Tourism	43	0	693	588	95	347	551	5	:	338	38	21	28	2746	**2,4**
Other	**89**	**357**	**71**	**2628**	**195**	**545**	**119**	**20**	**805**	**386**	**6**	**0**	**20**	**5241**	**4,6**
TOTAL	**794**	**15911**	**13980**	**31146**	**2702**	**7640**	**17051**	**164**	**17857**	**5137**	**232**	**560**	**367**	**113540**	**100,0**

A: 1995-99

2000-2006	(including phase-out)														
	B	D	EL	E	F	IRL	I	NL	P	UK	A	FIN	S	EUR13	%
Infrastructure	**91**	**4340**	**9051**	**14442**	**1159**	**1414**	**8928**	**33**	**4655**	**201**	**11**	**0**	**76**	**44401**	**34,3**
Transport	4	3017	6496	7584	529	732	3227	8	2737	128	:	:	33	24495	**18,9**
ICT	37	:	336	240	13	47	728	16	609	1	6	:	43	2076	**1,6**
Energy	5	15	721	246	98	41	606	0	:	4	:	:	:	1735	**1,3**
Environment & water	45	1308	875	5778	466	357	4246	3	532	67	5	:	:	13682	**10,6**
Health & Social	0		623	594	54	237	121	0	777	0	:	:	:	2406	**1,9**
Human resources	**171**	**5414**	**3983**	**8646**	**1249**	**867**	**4829**	**20**	**5040**	**272**	**53**	**266**	**150**	**30960**	**23,9**
Education*	0	0	2765	2184	190	386	2645	3	2338	13	:	98	48	10670	**8,3**
Training	171	5414	1218	6462	1059	481	2184	18	2702	260	53	168	102	20292	**15,7**
Other															**0,0**
Productive environment	**338**	**8599**	**5355**	**9570**	**1328**	**698**	**9515**	**69**	**7875**	**387**	**181**	**651**	**443**	**45009**	**34,8**
Industry and services	136	5160	791	4302	368	61	3338	38	4879	300	73	413	170	20029	**15,5**
RDTI	118	164	336	1008	75	305	1820	5	518	11	25	:	82	4467	**3,5**
Agriculture, rural dev, fisheries	44	3275	3045	3576	734	271	3668	21	2478	60	38	203	133	17546	**13,6**
Tourism	41		1183	684	151	61	690	6		15	45	35	58	2968	**2,3**
Other	**45**	**767**	**2562**	**1344**	**192**	**105**	**728**	**10**	**3094**	**16**	**5**	:	**52**	**8920**	**6,9**
TOTAL	**645**	**19120**	**20951**	**34002**	**3928**	**3084**	**23993**	**132**	**20664**	**875**	**250**	**917**	**721**	**129282**	**100,0**

** Including infrastructure for education co-financed by the ERDF*
Source: DG REGIO

Table A.37 Structural Funds: implementation progress on transport projects, mid-1999

	Ireland			Portugal			Spain			Italy			Greece		
	Target	*Achieved*	*%*	*Target*	*Achieved*	*%*	*Target*	*Achieved*	*%*	*Target*	*Achieved*	*%*	*Target*	*Achieved*	*%*
Road															
New (km)	426	392	92%	1150	1225	106%	1661	1329	80%	5	2,5	50%	1676	465	28%
Upgrade (km)	2000	1694	85%	:	:	:	2908	2326	80%	150	75	50%	:	:	:
Rail															
New (km)	375	375	100%	:	:	:	:	:	:	159	80	50%	709	208	29%
Upgrade (km)	:	:	:	800	544	68%	2185	1844	84%	1100	550	50%	520	36	7%
Port															
No. improved	7	:	87%	9	:	94%	5	:	75%	1	:	100%	12	:	:
Airport															
No. improved	3	:	91%	3	:	92%	3	:	49%	2	:	100%	3	:	:
Metro															
No. systems improved	:	:	:	:	:	:	:	:	:	:	:	:	1	:	69%

Source: Thematic evaluation of the effects of Structural Funds on transport infrastructure, European Commission, 2000

Table A.38 Estimated Structural Funds support to SMEs, 1989-93 and 1994-99

	1989-93		1994-99	
	SME support (EUR bn)	% aid*	SME support (EUR bn)	% aid*
Objective 1	5,74	15	13,6	14
Objective 2	2.5-3.6	35-50	5,4	35
Objective 5b	1.4-1.8	50-60	2,2	31
Objective 6	0	0	0,2	25
Total	9.6-10.2	20-21	21,4	18

** Covers only aid provided under the Structural Funds listed in the CSF, OP and SPD*

Table A.39 Expenditure on support of SMEs by type of measure, 1994-99

Type of measure	EUR mn	%
Financial support (direct)	6820	31,9
Financial engineering	570	2,7
Business services	2684	12,6
Innovation, technology transfer	2499	11,7
Support infrastructure	2126	10
Training	3607	16,9
Sectoral measures	1196	5,6
Other	1850	8,7
Total	21352	100

Source: SME thematic evaluation (1999)

Table A.40 – Structural Funds resources devoted to RTDI, 1994-1999

	Objectives 1 and 6	Objective 2
	EUR mn	EUR mn
B	-	38
DK	-	15
D	545,6	134
EL	694,5	-
E	789	258
F	65,7	322
IRL	337,2	-
I	891,6	61
L	-	-
NL	-	-
A	13	20
P	978,6	-
FIN	22,5	35
S	24,7	28
UK	142,6	322

A and S: 1995-99

Source: CIRCA Group, Thematic evaluation of RTDI and Strucural Funds Objectives 1 and 6 (1999); ZENIT-ADE, Thematic evaluation of RTDI Objective 2 (1999)

Table A.41 – Structural Funds expenditure on the environment, 1994-99

	EUR mn, 1994 prices
Water treatment and distribution	6970,5
Industrial and urban environment, protection of natural environment	1057,6
Waste collection and treatment	224,9
Research, training and other	75,0
Total Objective 1	8328,0
Reclamation, waste treatment and clean technologies	210,8
Clean up of industrial sites and urban areas	162,0
Training and other	24,2
Total Objective 2	397,0
Management of natural environment, countryside, biodiversity	400,5
Reclamation/treatment (clean technologies, industrial waste)	216,2
Forestry	103,8
Total Objective 5b	720,5

Source: DG REGIO

Table A.42 Cost of job creation from Community intervention in Objective 2 areas, 1994-96 and 1997-99

	No. of areas	Gross jobs per EUR mn	Adjusted average EUR mn	
		1994-96	1994-96	1997-99
B	4	14 to 172	32	43
DK	2	11 to 13	13	17
D	5	1 to 78	57	63
E	6	1 to 11	:	44
F	16	1 to 74	30	33
I	10	3 to 24	16	54
L	1	34	34	24
NL	5	2 to 25	16	38
A	4	2 to10	:	:
FIN	8	35	35	:
S	5	17 to 30	23	:
UK	8	23 to 101	48	66
Total	74	2 to 172	30	42

A and S: 1995-99
Source: Single Programming Documents for Objective 2 regions

Table A.43 Effect of structural policy: simulations results, 2000-2006

% difference from baseline without policy

Hermin Model	Greece			Spain			Ireland			Portugal		
	2000	2006	2010	2000	2006	2010	2000	2006	2010	2000	2006	2010
GDP	5,1	6,2	1,4	1,5	2,4	0,7	1,2	1,8	1,2	6,4	6,0	1,8
Private consumption	3,1	6,7	1,5	0,8	2,5	0,6	0,8	1,2	0,5	6,2	5,8	1,6
Fixed investment*	27,0	23,2	1,6	4,4	4,4	0,3	5,8	2,7	0,6	20,2	14,0	0,6
Employment	4,7	3,9	-0,3	1,2	1,6	0,2	1,0	0,5	0,1	4,7	2,9	0,0
Price level	1,7	4,4	0,7	0,5	1,1	-0,3	0,5	0,0	-0,4	0,6	0,4	-0,4
Public deficit	0,1	-0,1	0,0	0,1	-0,1	-0,1	0,3	0,0	0,0	0,2	0,2	0,2
Trade balance	-1,6	-1,6	0,0	-0,6	-0,6	0,1	-0,6	0,1	0,3	-2,4	-1,2	0,2

** E: private investment only*

Note: Figures for the public deficit and trade balance are percentage point changes relative to GDP; for the public balance, a minus indicates a smaller deficit, a plus a larger one

Quest II Model	Greece			Spain			Ireland			Portugal		
	2000	2006	2009	2000	2006	2009	2000	2006	2009	2000	2006	2009
GDP	1,2	2,4	2,6	0,6	0,9	1,0	0,6	0,5	0,5	0,8	2,0	2,2
Private consumption	1,2	1,9	2,0	0,5	0,8	0,8	0,6	0,4	0,1	1,1	1,4	1,3
Private investment	-1,6	-0,5	2,8	0,2	0,1	0,9	0,9	0,3	-0,1	-1,2	-0,8	0,7
Employment	0,3	0,3	0,3	0,1	0,1	0,1	0,2	0,0	-0,1	0,2	0,3	0,3
Price level	0,8	-1,0	-2,2	0,2	-0,4	-0,9	0,3	0,0	-0,4	0,5	-1,3	-2,1
Public deficit	1,1	0,1	-0,8	0,4	0,1	-0,3	1,2	0,6	0,0	1,5	0,2	-0,8
Trade balance	-0,7	-0,8	-0,2	-0,4	-0,5	-0,2	-0,6	-0,4	-0,1	-1,1	-1,0	-0,1

Note: Figures for the public deficit and trade balance are percentage point changes relative to GDP; for the public balance, a minus indicates a smaller deficit, a plus a larger one
Source: Commission services

Table A.44 Contribution of EAGGF Guarantee to rural development policy, 2000-2006

Measures	EAGGF Guarantee		Total costs	
	EUR mn	%	EUR mn	%
Investment in holdings	1333,8	5,5	4708,2	7,4
Young Farmers	1169,2	4,8	2783,3	4,3
Training	204,8	0,8	582,8	0,9
Early retirement Obj 1	663,5	2,7	1849,9	2,9
Early retirement non-Obj 1	238,2	1,0	501,5	0,8
LFA/AER* Obj 1	924,0	3,8	3185,8	5,0
LFA/AER non-Obj 1	4631,9	18,9	12745,4	19,9
Agri-environmental Obj 1	2288,4	9,4	3917,7	6,1
Agri-environmental non-Obj 1	7331,5	30,0	16805,9	26,2
Process, marketing of agri products	1191,3	4,9	4281,0	6,7
Afforestation of agri land Obj 1	446,6	1,8	912,1	1,4
Afforestation of agri land non-Obj 1	672,4	2,7	1287,8	2,0
Other forestry measures Obj 1	0,0	0,0	2,6	0,0
Other forestry measures non-Obj 1	776,1	3,2	2211,3	3,5
Land improvement	25,9	0,1	71,8	0,1
Reparcelling	468,0	1,9	1599,2	2,5
Farm relief, farm management	71,0	0,3	160,5	0,3
Marketing quality agri products	122,7	0,5	344,2	0,5
Basic services	143,6	0,6	399,7	0,6
Renovation, development of rural villages	472,2	1,9	1428,6	2,2
Diversification	241,5	1,0	694,6	1,1
Managing agri water reserves	132,2	0,5	532,3	0,8
Infrastructure	241,2	1,0	725,7	1,1
Tourism and craft activities	119,2	0,5	387,1	0,6
Protecting the environment	405,7	1,7	1097,1	1,7
Restoring agricultural production	135,4	0,6	791,5	1,2
Financial engineering	8,9	0,0	29,2	0,0
TOTAL	24459,3	100,0	64036,7	100,0

** Less favoured areas / areas with environmental restrictions*

Source: DG AGRI

Table A.45 Additionality in Objective 1 regions: eligible population and annual expenditure, excluding EU funds, 1989-2006

EUR million, 1999 prices throughout

	1989 to 1993 programming period				1994 to 1999 programming period				2000 to 2006 programming period (1)			
	Average annual expenditure	*Eligible population 1989 (millions)*	*EUR per head*	*% GDP 1991*	*Average annual expenditure*	*Eligible population* 1994 (millions)*	*EUR per head*	*% GDP 1997*	*Average annual expenditure*	*Eligible population 1999 (millions)*	*EUR per head*	*% GDP 2001*
B	942	1,3	736	0,5	906	1,3	709	0,4	939	1,3	731	0,4
DK	0	0	0	0,0	0	0	0	0,0	0	0	0	0,0
D	41.060	16,4	2.496	2,6	27.146	16,4	1.651	1,4	24.623	15,5	1.593	1,2
GR	5.286	10,1	526	5,9	6.884	10,2	674	6,2	8.952	10,5	855	7,0
E	11.979	22,4	534	2,2	12.687	23,3	545	2,5	13.916	23,7	586	2,3
F (2)	2.260	2,5	888	0,2	2.260	2,5	888	0,2	2.325	2,8	843	0,2
IRL	1.344	3,5	382	2,8	2.261	3,5	646	3,2	4.656	3,6	1.284	4,6
I	19.104	20,6	926	1,7	16.150	21,1	764	1,5	19.592	19,3	1.015	1,7
L	0	0	0	0,0	0	0	0	0,0	0	0	0	0,0
NL	127	0,2	584	0,0	373	0,2	1.719	0,1	410	0,3	1.479	0,1
A (3)	138	0,3	513	0,1	138	0,3	513	0,1	138	0,3	502	0,1
P	4.733	10,3	459	5,9	4.497	9,9	456	4,7	5.110	9,8	520	4,5
SF (3)	893	0,8	1.062	0,7	893	0,8	1.062	0,8	899	1,1	836	0,7
S (3)	2.774	0,5	6.151	1,1	2.774	0,5	6.151	1,3	2.645	0,5	5.852	1,1
UK	1.829	1,6	1.143	0,2	5.261	3,4	1.541	0,4	5.548	7,1	780	0,4
EU	92.468	90,6	1.021	1,3	82.230	92,2	892	1,1	89.753	95,7	938	1,1

(1) Including phasing-out
(2) Figures are notional and are taken from the 1994-1999 period in order to preserve comparability following a change in methodology
(3) Provisional data
** Eligible population refers to those areas covered by Objectives 1 and 6 during 1994-99*
Source: Calculations DG REGIO. Data are not strictly comparable between countries

Table A.46 Community contribution to actions under SAPARD in CECs, 2000-2006

Measure	Community contribution EUR bn
Investment in farms	797
Processing and marketing	940
Quality and controls	42
Agri-environment	89
Diversification	421
Producer groups	47
Village renovation	72
Land improvement	46
Training	117
Rural infrastructure	753
Water management	50
Forestry	161
Technical assistance	93
Commission tech assist	73

Source: Commission services

Table A.47 Indicative allocation of committment appropriations by Member State, 2000-2006

EUR million, 1999 prices

Member State	Objectives					FIFG (excl. Objective 1)	Community Initiatives	Cohesion Fund	Total (3)
	1 (1, 2)	Transitional support Objective 1	2	Transitional support Objective 2	3				
B	0	625	368	65	737	34	209	:	2038
DK	0	0	156	27	365	197	83	:	828
D	19229	729	2984	526	4581	107	1608	:	29764
EL	20961	0	0	0	0	0	862	3060	24883
E	37744	352	2553	98	2140	200	1958	11160	56205
F	3254	551	5437	613	4540	225	1046	:	15666
IRL (1)	1315	1773	0	0	0	0	166	720	3974
I	21935	187	2145	377	3744	96	1172	:	29656
L	0	0	34	6	38	0	13	:	91
NL	0	123	676	119	1686	31	651	:	3286
A	261	0	578	102	528	4	358	:	1831
P	16124	2905	0	0	0	0	671	3060	22760
FIN	913	0	459	30	403	31	254	:	2090
S (2)	722	0	354	52	720	60	278	:	2186
UK (1)	5085	1166	3989	706	4568	121	961	:	16596
Total	**127543**	**8411**	**19733**	**2721**	**24050**	**1106**	**10290**	**18000**	**211854**

(1) Including PEACE funds (2000-2004)
(2) Including special programme for Swedish coastal areas
(3) This total is less than EUR 213 billion because it excludes funding both for networks under the Community Initiatives and for innovative actions.
Source: European Commission services

Table A.48 GDP per head (in PPS) in Objective 1 regions, 1988-1998

Region [1]	1988	1989	1990	1991	1992	1993	1993	1994	1995	1996	1997	1998
HAINAUT	*77*	*76*	*76*	*76*	*78*	*82*	84	82	81	80	79	79
Obj. 1 BELGIQUE-BELGIË							**84**	**82**	**81**	**80**	**79**	**79**
BERLIN-OST, STADT				47	58	72	73	80	77	74	71	70
BRANDENBURG				39	48	57	59	66	73	74	72	71
MECKLENBURG-VORPOMMERN				37	45	52	53	60	72	73	72	71
SACHSEN				36	44	53	54	61	74	75	73	71
SACHSEN-ANHALT				36	45	54	55	61	68	70	69	68
THÜRINGEN				32	43	52	53	60	68	70	70	70
Obj. 1 DEUTSCHLAND				**37**	**46**	**55**	**56**	**63**	**72**	**73**	**71**	**70**
ANATOLIKI MAKEDONIA, THRAKI	52	53	52	53	55	56	57	59	56	56	55	55
KENTRIKI MAKEDONIA	58	58	57	58	61	63	64	65	65	69	68	68
DYTIKI MAKEDONIA	63	63	61	61	59	58	60	60	60	61	60	60
THESSALIA	54	57	54	56	56	57	58	60	57	58	57	57
IPEIROS	43	42	39	40	41	42	43	43	43	43	42	42
IONIA NISIA	55	54	52	53	55	58	59	60	56	57	56	56
DYTIKI ELLADA	48	50	48	50	51	53	55	56	53	53	53	53
STEREA ELLADA	72	72	68	68	64	64	66	65	83	85	84	84
PELOPONNISOS	58	57	55	56	56	56	57	58	53	53	52	53
ATTIKI	61	62	61	62	66	70	72	73	76	75	74	74
VOREIO AIGAIO	44	41	41	43	45	47	48	49	59	61	61	61
NOTIO AIGAIO	68	67	65	66	68	71	73	74	74	78	77	77
KRITI	57	64	61	62	64	67	68	71	65	68	67	67
Obj. 1 ELLADA	**58**	**59**	**57**	**58**	**60**	**63**	**64**	**65**	**66**	**67**	**66**	**66**
GALICIA	57	57	56	58	57	60	62	61	63	64	64	64
PRINCIPADO DE ASTURIAS	70	70	68	70	69	72	74	73	71	71	72	72
CANTABRIA	*72*	*74*	*73*	*74*	*74*	*75*	76	76	73	74	74	76
CASTILLA Y LEÓN	67	66	65	67	66	72	74	73	75	75	74	74
CASTILLA-LA MANCHA	60	61	62	63	62	65	67	66	65	67	66	67
EXTREMADURA	49	48	48	50	50	55	56	56	50	51	50	50
COMUNIDAD VALENCIANA	72	73	75	77	76	75	76	75	75	76	76	77
ANDALUCÍA	55	54	57	59	57	57	58	58	58	58	58	58
REGIÓN DE MURCIA	66	67	70	71	69	68	70	69	65	66	67	67
CEUTA Y MELILLA	64	63	63	66	63	67	69	68	65	66	66	67
CANARIAS	73	72	71	72	73	74	76	75	73	74	75	77
Obj. 1 ESPAÑA	**62**	**62**	**63**	**65**	**63**	**65**	**66**	**66**	**66**	**66**	**66**	**67**
CORSE	78	76	76	76	76	82	84	82	78	76	74	77
GUADELOUPE	37	37	37	37	39	40	41	40	56	54	52	52
MARTINIQUE	51	50	50	52	52	53	54	54	63	61	59	60
GUYANE	49	51	53	54	52	50	51	48	59	55	53	53
REUNION	43	43	45	47	48	46	47	46	53	51	50	50
Obj. 1 FRANCE	**49**	**49**	**49**	**50**	**51**	**51**	**52**	**52**	**60**	**57**	**56**	**56**
IRELAND	**64**	**66**	**71**	**72**	**76**	**81**	**83**	**91**	**93**	**94**	**104**	**108**
ABRUZZO	87	87	89	89	90	87	87	89	88	88	*86*	*84*
MOLISE	78	76	76	76	76	74	75	77	78	79	81	79
CAMPANIA	68	68	69	68	68	66	68	67	65	65	65	64
PUGLIA	73	71	71	72	71	69	70	72	67	67	66	65
BASILICATA	64	62	63	63	64	64	66	67	71	73	72	72
CALABRIA	57	59	56	59	58	59	60	59	61	61	61	61
SICILIA	66	64	67	69	69	68	69	67	66	66	66	65
SARDEGNA	73	72	73	76	77	76	78	76	76	76	76	76
Obj. 1 ITALIA	**69**	**68**	**69**	**70**	**70**	**68**	**70**	**68**	**68**	**68**	**68**	**67**
FLEVOLAND	*73*	*75*	*76*	*74*	*72*	*73*	75	78	83	78	82	81
Obj. 1 NEDERLAND							**75**	**78**	**83**	**78**	**82**	**81**
BURGENLAND	*62*	*61*	*64*	*65*	*65*	*70*	72	72	68	70	69	69
Obj. 1 ÖSTERREICH							**72**	**72**	**68**	**70**	**69**	**69**
NORTE	54	57	52	53	56	58	60	62	63	63	65	66
CENTRO	45	45	48	49	52	54	55	58	61	61	64	65
LISBOA E VALE DO TEJO	84	86	78	82	81	85	87	89	89	89	94	95
ALENTEJO	39	40	54	51	50	53	54	56	59	62	65	67
ALGARVE	56	54	63	65	69	69	71	70	71	72	75	76
AÇORES	43	45	43	44	46	48	49	50	50	50	51	52
MADEIRA	43	45	41	45	47	49	51	52	55	55	57	58
Obj. 1 PORTUGAL	**61**	**63**	**60**	**62**	**63**	**66**	**68**	**70**	**71**	**71**	**74**	**75**
MERSEYSIDE	*80*	*77*	*74*	*70*	*71*	*74*	75	74	69	70	72	73
HIGHLANDS & ISLANDS	*83*	*77*	*80*	*81*	*80*	*79*	81	81	76	76	77	77
NORTHERN IRELAND	76	75	74	75	76	78	80	80	75	75	78	77
Obj. 1 UNITED KINGDOM	**76**	**75**	**74**	**75**	**76**	**78**	**80**	**78**	**73**	**73**	**76**	**75**
EU15	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
Total Objective 1 (89-99) [2]	**63**	**64**	**64**	**65**	**65**	**67**	**68**	**69**	**68**	**68**	**69**	**70**
Total Objective 1 (1994-99) [3]							**66**	**68**	**69**	**70**	**70**	**70**

The period is split into two subperiods to correspond with the two programming periods, 1989-93 and 1994-99. The year immediately before the programming period is shown as the basis for assessing changes over the period. For 1989-93, the figures in italics are regions which did not have Objective 1 status during the period. These are excluded from the total for Objective 1 regions and from the country totals. For this first period, EU15 excludes the new German Länder. For the second period, EU15 includes the new Länder.

1995-98: according to ESA95

(1) Only regions wholly eligible for Objective 1 (1989-93 and/or 1994-99)

(2) Only regions with Objective 1 status throughout the period

(3) Regions with Objective 1 status from 1994 to 1996 (ie including Abruzzo)

Source : Eurostat

Table A.49 Unemployment rates in Objective 1 regions, 1988-1999

Region [1]	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	1988-93	1993-99
	% Labour force												% point change	
HAINAUT	*15,4*	*11,9*	*10,9*	*10,7*	*11,8*	*14,0*	15,5	15,9	15,8	15,4	17,0	16,6	*-1,4*	2,6
Obj. 1 BELGIË-BELGIQUE						***14,0***	**15,5**	**15,9**	**15,8**	**15,4**	**17,0**	**16,6**	***-1,4***	**2,6**
BERLIN-OST, STADT				*9,7*	*14,0*	*10,9*	11,1	9,4	11,2	14,7	18,6	17,3		6,4
BRANDENBURG				*9,1*	*13,9*	*14,9*	15,2	14,3	15,5	17,0	18,1	16,0		1,1
MECKLENBURG-VORPOMMERN				*12,0*	*17,7*	*17,6*	16,9	15,5	16,8	18,6	20,0	17,5		-0,1
SACHSEN				*8,6*	*13,9*	*14,8*	15,8	14,1	15,3	17,0	18,1	16,2		1,4
SACHSEN-ANHALT				*9,9*	*15,7*	*17,4*	18,2	16,3	18,0	20,4	21,4	19,9		2,5
THÜRINGEN				*9,9*	*15,4*	*15,9*	16,0	15,1	16,0	17,4	18,4	14,3		-1,6
Obj. 1 DEUTSCHLAND				**9,6**	**14,9**	**15,4**	**15,9**	**14,4**	**15,7**	**17,6**	**19,0**	**16,7**		**1,3**
ANATOLIKI MAKEDONIA, THRAKI	9,0	6,7	5,1	4,8	6,9	6,6	7,4	9,2	9,6	8,2	8,9	12,8	-2,4	6,2
KENTRIKI MAKEDONIA	6,8	6,6	5,7	5,5	6,4	7,9	8,2	9,1	8,9	9,2	10,4	11,7	1,1	3,8
DYTIKI MAKEDONIA	6,0	5,7	9,0	7,2	7,4	9,8	9,1	13,2	16,3	13,8	11,3	14,6	3,8	4,8
THESSALIA	6,9	6,5	7,0	6,2	7,3	7,2	6,9	7,6	7,6	7,5	10,7	12,8	0,3	5,6
IPEIROS	5,0	4,0	2,8	8,8	7,4	7,6	8,0	7,2	11,2	10,5	13,6	13,9	2,6	6,3
IONIA NISIA	3,4	2,8	3,1	3,5	2,5	3,8	3,4	5,3	5,5	6,2	3,8	5,5	0,4	1,7
DYTIKI ELLADA	7,2	7,2	6,9	7,8	8,6	9,4	10,5	8,2	8,6	7,9	10,9	11,8	2,2	2,4
STEREA ELLADA	6,9	5,9	5,8	6,3	10,8	9,5	10,6	9,2	10,3	12,0	12,8	14,2	2,6	4,7
PELOPONNISOS	5,8	4,8	5,2	5,0	7,3	5,8	6,3	6,0	6,4	7,5	8,1	7,6	0,0	1,8
ATTIKI	10,0	8,5	7,9	8,9	9,7	11,1	11,1	11,0	11,9	11,6	12,2	12,5	1,1	1,4
VOREIO AIGAIO	5,4	5,9	4,2	7,9	4,8	4,3	7,0	4,9	7,1	7,1	10,6	11,3	-1,1	7,0
NOTIO AIGAIO	5,2	4,4	4,3	3,2	3,5	4,5	3,5	4,8	4,9	4,3	6,4	7,3	-0,7	2,8
KRITI	3,5	2,4	2,2	3,6	3,3	3,5	3,8	4,1	3,4	4,3	7,1	7,3	0,0	3,8
Obj. 1 ELLADA	**7,7**	**6,7**	**6,3**	**6,9**	**7,8**	**8,6**	**8,8**	**9,1**	**9,7**	**9,6**	**10,8**	**11,7**	**0,9**	**3,1**
GALICIA	13,2	12,5	11,9	12,3	16,2	17,6	19,7	17,4	19,2	19,2	17,2	16,8	4,4	-0,8
PRINCIPADO DE ASTURIAS	20,2	17,4	17,4	16,1	17,7	20,4	22,5	21,2	22,5	21,2	20,5	18,2	0,2	-2,2
CANTABRIA	*21,8*	*17,6*	*16,9*	*15,4*	*16,3*	*19,9*	24,4	21,7	24,8	21,1	18,6	15,7	*-1,9*	-4,2
CASTILLA Y LEÓN	17,8	17,4	15,5	14,5	17,3	20,0	21,7	20,6	20,5	19,9	18,9	15,6	2,2	-4,4
CASTILLA-LA MANCHA	16,6	14,8	13,3	13,6	15,3	19,5	20,7	20,7	20,2	19,1	16,9	15,6	2,9	-3,9
EXTREMADURA	27,1	26,8	25,4	24,2	26,3	30,3	32,3	30,9	30,5	29,5	28,8	25,5	3,2	-4,8
COMUNIDAD VALENCIANA	18,3	15,3	14,1	15,9	18,7	23,9	24,7	22,6	21,7	21,5	17,4	14,3	5,6	-9,6
ANDALUCÍA	29,2	27,2	25,9	24,7	27,0	32,4	34,7	33,8	32,8	31,9	29,9	26,8	3,2	-5,6
REGIÓN DE MURCIA	17,6	16,2	15,8	16,5	19,4	24,5	25,1	22,6	24,5	18,3	17,4	14,4	6,9	-10,1
CEUTA Y MELILLA	35,4	31,7	29,8	29,7	25,5	22,9	27,9	33,5	27,3	26,4	24,8	25,5	-12,5	2,6
CANARIAS	22,5	22,5	23,1	24,4	24,7	27,9	28,3	24,0	22,0	20,9	19,8	14,4	5,4	-13,5
Obj. 1 ESPAÑA (1989-93)	**21,3**	**19,8**	**18,7**	**18,7**	**21,1**	**25,2**	**26,9**	**25,4**	**25,1**	**24,2**	**22,2**	**19,4**	**3,9**	**-5,8**
Obj. 1 ESPAÑA (1994-99)						**25,1**	**26,9**	**25,3**	**25,1**	**24,1**	**22,1**	**19,3**		**-5,8**
CORSE	10,6	9,4	9,7	11,3	10,8	11,9	12,5	11,0	14,7	15,0	14,0	14,3	1,3	2,4
GUADELOUPE	:	:	31,1	:	:	:	24,0	26,1	29,3	:	30,1	32,0	:	5,3
MARTINIQUE	:	:	32,1	:	:	:	26,2	26,0	27,2	:	28,1	32,0	:	1,0
GUYANE	:	:	24,0	:	:	:	18,2	23,0	22,4	:	23,2	32,0	:	4,2
RÉUNION	:	:	36,9	:	:	:	31,7	34,3	36,8	:	37,9	32,0	:	5,1
Obj. 1 FRANCE (excl. DOM)	**10,6**	**9,4**	**9,7**	**11,3**	**10,8**	**11,9**	**12,5**	**11,0**	**14,7**	**15,0**	**14,0**	**14,3**	**1,3**	**2,4**
Obj 1 FRANCE [2]						**25,1**	**25,2**	**26,6**	**29,0**	**29,1**	**29,6**	**29,7**	:	**4,6**
IRELAND	**16,3**	**14,9**	**13,1**	**14,6**	**15,3**	**15,7**	**14,7**	**12,2**	**11,8**	**10,1**	**7,9**	**5,9**	**-0,6**	**-9,8**
ABRUZZO	9,3	9,5	9,0	8,0	6,9	9,2	9,4	8,9	9,9	*9,6*	*9,1*	*10,6*	-0,1	1,4
MOLISE	12,4	12,1	10,7	12,8	7,0	13,3	17,2	17,3	17,8	16,6	16,8	16,6	0,9	3,3
CAMPANIA	23,0	20,8	17,7	17,8	16,0	19,5	22,7	25,6	25,5	25,6	24,5	23,7	-3,5	4,2
PUGLIA	15,7	13,8	12,9	13,2	12,6	14,1	14,7	15,8	17,9	19,3	19,6	19,8	-1,6	5,7
BASILICATA	21,5	18,9	19,0	17,0	14,7	13,1	16,2	18,9	19,4	19,4	18,4	17,3	-8,4	4,2
CALABRIA	22,6	23,2	20,1	18,6	16,8	21,2	21,8	23,7	25,0	24,5	27,1	28,7	-1,4	7,5
SICILIA	18,6	20,0	19,3	18,7	17,1	18,1	21,6	23,1	24,0	24,7	24,1	24,8	-0,5	6,7
SARDEGNA	18,4	17,6	16,8	15,7	15,2	19,6	20,0	20,6	21,8	20,8	20,3	21,9	1,2	2,3
Obj. 1 ITALIA	**19,1**	**18,4**	**16,7**	**16,3**	**14,8**	**17,3**	**19,4**	**21,1**	**21,9**	**22,2**	**22,0**	**22,4**	**-1,8**	**5,0**
FLEVOLAND	*7,9*	*8,7*	*8,2*	*5,7*	*6,2*	*5,9*	6,7	8,5	6,2	5,7	4,6	3,1	*-2,0*	-2,8
Obj. 1 NEDERLAND						***5,9***	**6,7**	**8,5**	**6,2**	**5,7**	**4,6**	**3,1**	***-2,0***	**-2,8**
BURGENLAND				*3,1*	*2,4*	*2,8*	2,8	2,8	3,7	3,8	4,2	3,3		0,5
Obj. 1 ÖSTERREICH						***2,8***	**2,8**	**2,8**	**3,7**	**3,8**	**4,2**	**3,3**		**0,5**
NORTE	3,6	2,9	2,6	2,7	3,1	4,5	5,8	6,5	7,0	6,9	5,4	4,7	0,9	0,2
CENTRO	3,7	2,9	2,0	2,3	2,5	3,6	4,4	4,0	4,1	3,4	2,5	2,4	-0,1	-1,2
LISBOA E VALE DO TEJO	8,8	6,9	5,8	4,4	4,8	6,5	8,3	9,4	8,9	7,9	6,4	6,1	-2,3	-0,4
ALENTEJO	14,6	11,6	9,8	9,1	7,5	8,8	11,4	11,8	12,3	10,4	9,0	6,7	-5,8	-2,1
ALGARVE	5,5	3,1	3,8	3,9	2,8	5,1	6,8	6,6	9,1	8,3	6,8	3,7	-0,4	-1,4
AÇORES	2,2	2,5	3,0	3,7	3,4	5,3	6,6	8,1	7,2	5,5	4,4	3,7	3,1	-1,6
MADEIRA	4,8	5,5	5,0	3,0	3,0	3,7	4,6	4,8	5,5	5,5	4,1	3,4	-1,1	-0,3
Obj. 1 PORTUGAL	**6,0**	**4,8**	**4,1**	**3,6**	**3,8**	**5,3**	**6,7**	**7,3**	**7,4**	**6,7**	**5,3**	**4,7**	**-0,7**	**-0,6**
MERSEYSIDE	*15,7*	*15,1*	*14,4*	*14,9*	*15,2*	*15,0*	14,4	13,3	11,6	10,3	11,8	11,7	*-0,7*	-3,3
HIGHLANDS & ISLANDS	*12,8*	*10,9*	*9,8*	*8,3*	*8,5*	*12,4*	12,1	10,5	8,1	8,4	6,1	6,0	*-0,4*	-6,4
NORTHERN IRELAND	17,1	17,7	17,3	16,0	15,5	15,1	14,5	12,9	11,4	8,6	10,3	9,4	-2,0	-5,7
Obj. 1 UK (1989-93)	**17,1**	**17,7**	**17,3**	**16,0**	**15,5**	**15,1**	**14,5**	**12,9**	**11,4**	**8,6**	**10,3**	**9,4**	**-2,0**	**-5,7**
Obj. 1 UK (1994-99)						**14,8**	**14,2**	**12,8**	**11,2**	**9,2**	**10,3**	**9,8**		**-5,0**
EU15, excl. new Länder [3]	**9,0**	**8,3**	**7,7**	**8,1**									**1,5**	
EU15 [3]				**8,2**	**9,2**	**10,7**	**11,2**	**10,7**	**10,8**	**10,7**	**10,1**	**9,4**		**-1,3**
Total Obj. 1 (1989-99) [4]	**15,6**	**14,5**	**13,5**	**13,3**	**13,9**	**16,3**	**17,6**	**17,5**	**17,7**	**17,3**	**16,7**	**15,8**	**0,7**	**-0,5**
Total Obj. 1 (1994-99) [5]						**16,0**	**17,2**	**16,8**	**17,3**	**17,0**	**16,9**	**15,7**		**-0,3**

See Note to Table A.47. Figures in italics are for regions which did not have Objective 1 status in the first programming period. Abruzzo, in Italy, was no longer eligible for Objective 1 status from 1997 on. It is included in the total for Italy and the EU for 1997 and 1998 for continuity.

(1) Only regions wholly eligible for Objective 1

(2) No data for DOMs in 1997; total for 1997 calculated on the basis of 1996 data for these.

(3) Eurostat harmonised unemployment figures

(4) Regions with Objective 1 status throughout the period (except Abruzzo which became no longer eligible for Objective 1 in 1997 but which is included in the 1997and 1998 figures.

(5) Regions with Objective 1 status during the second programming period.

Source : Eurostat and estimates DG REGIO

Table A.50 Main regional indicators

Region	Economy							Labour market				
	GDP per head (PPS), EUR15=100			Employment by sector (% total), 1999			Eur. patent applications per million inh, av 1997-98-99	Unemployment rate (%)				
	1988	1998	average 1996-97-98	Agriculture	Industry	Services		Total, 1989	Total, 1999	Long term unemployed, 1999 (% total unempl.)	Women, 1999	Youth, 1999
EU15	**100,0**	**100,0**	**100,0**	**4,5**	**29,2**	**66,0**	**119,4**	**8,4**	**9,4**	**46,1**	**11,0**	**17,8**
EU12	**98,2**	**99,6**	**99,7**	**4,4**	**29,4**	**65,9**	**114,0**	**8,8**	**9,5**	**47,0**	**11,3**	**17,9**
BELGIQUE-BELGIË	**103,2**	**111,3**	**111,2**	**2,4**	**25,8**	**71,8**	**123,1**	**7,2**	**8,8**	**59,3**	**10,4**	**23,4**
REG. BRUXELLES-CAP. / BRUSSELS HFDST. GEW.	162,3	168,8	169,6	0,2	13,4	86,4	134,5	9,2	14,0	62,0	14,2	35,1
VLAAMS GEWEST	104,4	115,1	114,8	2,5	28,0	69,5	140,1	5,5	5,6	51,1	7,0	14,6
ANTWERPEN	123,8	138,5	137,6	2,2	28,1	69,8	176,4	6,4	6,5	53,2	8,1	17,7
LIMBURG (B)	102,6	108,5	108,4	2,1	34,5	63,4	78,2	8,5	7,0	53,7	9,9	16,6
OOST-VLAANDEREN	99,0	104,1	103,9	2,7	30,4	66,9	106,2	5,3	5,9	52,9	7,2	14,2
VLAAMS BRABANT	81,4	96,1	96,2	1,5	20,7	77,8	217,2	4,0	3,9	47,0	4,5	12,0
WEST-VLAANDEREN	103,9	116,2	115,8	3,8	27,5	68,7	102,4	3,9	4,6	44,5	5,8	11,8
RÉGION WALLONNE	83,4	87,9	87,9	2,8	24,7	72,5	88,3	9,9	13,3	65,1	15,7	37,4
BRABANT WALLON	75,5	86,8	87,2	2,0	24,0	74,1	263,4	5,8	8,8	55,0	10,5	25,1
HAINAUT	77,0	79,2	79,3	2,6	27,3	70,2	47,7	11,9	16,6	68,5	19,4	47,8
LIÈGE	94,9	98,6	98,2	2,4	23,9	73,7	96,6	10,1	12,8	63,7	15,2	33,1
LUXEMBOURG (B)	85,3	95,0	95,7	6,8	24,7	68,5	62,0	6,1	7,3	50,1	9,2	21,6
NAMUR	80,4	85,7	85,7	3,0	20,3	76,7	64,6	9,2	12,6	66,6	14,7	40,2
DANMARK	**105,3**	**118,9**	**119,4**	**3,3**	**26,8**	**69,5**	**139,3**	**7,6**	**5,6**	**18,6**	**6,3**	**11,0**
DEUTSCHLAND	**114,8**	**107,7**	**108,6**	**2,9**	**33,8**	**63,3**	**227,3**	**5,7**	**8,9**	**50,6**	**9,3**	**9,0**
BADEN-WÜRTTEMBERG	125,1	122,5	122,4	2,5	41,4	56,1	416,4	3,3	5,1	53,9	5,2	5,8
STUTTGART	141,0	130,0	129,9	1,9	43,8	54,4	496,7	2,9	4,9	55,5	5,0	5,1
KARLSRUHE	122,6	133,6	133,5	1,5	37,9	60,6	353,6	4,1	5,8	53,6	5,8	6,9
FREIBURG	109,2	105,5	105,6	3,4	40,1	56,5	398,1	3,2	5,2	52,9	5,4	6,7
TÜBINGEN	112,3	109,4	109,4	4,3	42,9	52,8	355,0	2,9	4,5	51,7	4,8	5,1
BAYERN	116,7	122,9	123,4	4,1	35,6	60,3	360,9	3,7	5,0	47,6	5,1	5,4
OBERBAYERN	145,6	161,2	161,7	3,0	30,1	66,9	571,0	3,5	4,0	47,2	3,8	3,9
NIEDERBAYERN	90,3	98,3	99,1	6,8	40,1	53,1	137,6	3,6	4,8	36,0	4,7	5,6
OBERPFALZ	90,1	94,1	94,7	6,5	38,5	55,0	290,6	4,9	5,4	48,4	5,7	5,5
OBERFRANKEN	98,8	104,2	104,5	3,0	38,0	59,0	174,2	4,0	6,5	48,8	6,8	7,2
MITTELFRANKEN	119,9	118,5	119,0	4,9	37,8	57,3	365,4	4,2	6,4	52,6	6,6	6,8
UNTERFRANKEN	98,3	99,5	100,0	2,8	39,4	57,8	262,8	3,8	5,6	48,2	5,9	6,5
SCHWABEN	106,0	102,9	103,3	4,6	37,9	57,5	260,3	3,0	4,7	48,1	4,8	5,4
BERLIN	116,1	102,2	104,8	0,8	23,4	75,8	139,7	7,1	13,7	46,5	12,4	14,4
BRANDENBURG	:	70,6	72,3	5,4	32,2	62,3	45,5	:	16,0	39,8	17,7	10,9
BREMEN	144,3	144,3	143,6	1,3	26,4	72,3	61,0	11,0	11,4	61,7	9,8	13,0
HAMBURG	175,2	185,5	185,8	0,5	22,4	77,1	182,0	8,8	7,9	57,7	6,6	10,1
HESSEN	133,2	131,5	132,8	1,7	31,7	66,7	301,0	4,4	6,7	56,2	6,3	8,2
DARMSTADT	154,7	154,2	155,8	1,1	29,3	69,6	399,0	4,0	6,0	57,8	5,5	7,1
GIEßEN	93,9	90,7	91,6	2,3	36,2	61,5	208,6	4,8	7,0	51,5	7,0	9,0
KASSEL	102,2	99,4	100,3	3,0	35,4	61,6	93,0	5,6	8,5	56,2	8,2	10,2
MECKLENBURG-VORPOMMERN	:	70,7	71,9	6,8	26,9	66,3	18,5	:	17,5	39,6	19,6	12,7
NIEDERSACHSEN	97,2	99,5	100,0	4,0	32,5	63,6	154,8	7,3	8,2	58,8	8,2	10,1
BRAUNSCHWEIG	103,7	98,8	98,8	2,3	37,5	60,2	238,6	7,8	9,7	68,3	10,0	10,3
HANNOVER	111,2	112,0	112,4	2,1	32,2	65,7	193,9	7,4	8,3	56,8	7,9	10,9
LÜNEBURG	78,1	80,4	81,3	4,7	28,4	66,9	128,6	6,1	7,2	54,7	7,2	10,1
WESER-EMS	92,1	101,8	102,6	6,2	32,2	61,6	79,2	7,6	7,7	54,9	7,9	9,3
NORDRHEIN-WESTFALEN	108,8	109,9	111,1	1,8	34,3	64,0	215,7	7,6	8,2	61,2	8,0	9,7
DÜSSELDORF	118,1	118,3	119,2	1,5	32,4	66,1	262,4	8,2	8,7	63,6	8,2	11,0
KÖLN	113,2	116,7	118,4	1,5	30,3	68,2	263,5	7,4	7,6	60,4	7,3	8,6
MÜNSTER	93,5	97,9	99,2	2,9	35,0	62,1	154,6	7,9	8,1	59,4	7,9	8,8
DETMOLD	104,1	103,3	104,8	2,1	40,5	57,4	173,1	6,0	7,3	53,7	7,7	8,6
ARNSBERG	103,4	102,2	103,0	1,7	37,3	60,9	162,6	7,9	8,9	63,0	8,7	10,7
RHEINLAND-PFALZ	100,9	97,5	98,7	2,5	36,3	61,3	250,7	4,9	6,4	52,3	6,3	8,5
KOBLENZ	91,8	91,2	92,4	2,2	36,4	61,4	135,5	4,6	6,2	47,6	5,9	7,7
TRIER	86,2	95,2	96,1	4,2	31,2	64,6	69,6	5,6	5,8	46,8	5,7	7,2
RHEINHESSEN-PFALZ	111,6	103,0	104,1	2,2	37,4	60,4	383,9	4,9	6,7	56,6	6,6	9,5
SAARLAND	102,4	99,4	99,7	0,9	34,8	64,3	122,4	8,4	8,5	64,3	7,5	10,8
SACHSEN	:	71,4	73,1	3,0	34,8	62,3	59,8	:	16,2	42,9	18,6	10,9
CHEMNITZ	:	63,2	64,6	:	:	:	:	:	:	41,4	:	:
DRESDEN	:	74,1	75,9	:	:	:	:	:	:	44,7	:	:
LEIPZIG	:	79,4	81,5	:	:	:	:	:	:	42,2	:	:
SACHSEN-ANHALT	:	68,3	69,2	4,2	31,9	63,9	31,0	:	19,9	42,5	22,5	13,4
DESSAU	:	64,2	65,0	3,7	34,1	62,2	27,5	:	20,9	41,7	24,1	13,6
HALLE	:	74,7	75,6	3,9	32,4	63,8	41,5	:	20,6	45,6	23,1	15,1
MAGDEBURG	:	65,5	66,5	4,7	30,7	64,6	25,1	:	18,9	40,5	21,2	12,2
SCHLESWIG-HOLSTEIN	96,9	101,8	103,5	3,3	24,9	71,9	101,7	6,6	7,4	52,9	6,7	10,2

Employment rate (% popn 15-64), 1999			Demography					Education			Region
					% population aged: (1998)			Educational attainment of those aged 25-59 (% total), 1999			
Total	Women	Men	Population (000), 1998	Popn density (inh./km²), 1998	Under 15	15-64	65+	Low	Medium	High	
62,8	**53,1**	**72,6**	**374537**	**117,4**	**17,4**	**67,0**	**15,6**	**36**	**43**	**21**	**EU15**
62,4	**52,4**	**72,5**	**352454**	**149,5**	**17,4**	**67,1**	**15,6**	**37**	**42**	**21**	**EU12**
59,4	**50,5**	**68,2**	**10204**	**334,4**	**17,7**	**65,8**	**16,5**	**40**	**32**	**28**	**BELGIQUE-BELGIË**
54,3	47,7	61,0	954	5913,3	17,6	65,2	17,2	39	25	36	REG. BRUXELLES-CAP. / BRUSSELS HFDST. GEW.
62,3	53,9	70,5	5920	438,1	17,3	66,5	16,2	39	33	28	VLAAMS GEWEST
60,1	50,6	69,3	1640	571,8	17,4	66,1	16,5	39	32	29	ANTWERPEN
58,1	46,8	68,9	786	324,3	17,8	69,0	13,1	46	33	21	LIMBURG (B)
63,0	54,5	71,3	1358	455,5	16,7	66,7	16,6	41	33	26	OOST-VLAANDEREN
66,2	60,3	72,1	1010	479,4	17,2	66,5	16,4	31	34	35	VLAAMS BRABANT
64,2	57,3	70,9	1126	359,3	17,3	65,2	17,4	38	36	27	WEST-VLAANDEREN
55,6	45,2	66,1	3330	197,7	18,6	64,7	16,7	42	32	26	RÉGION WALLONNE
60,3	52,0	69,0	346	317,1	19,8	65,7	14,5	28	33	40	BRABANT WALLON
51,3	40,1	62,5	1282	338,6	18,1	64,7	17,2	46	32	22	HAINAUT
57,2	46,4	68,0	1017	263,4	18,2	64,7	17,1	43	31	26	LIÈGE
61,1	51,4	70,4	245	55,1	20,5	63,5	16,1	45	30	25	LUXEMBOURG (B)
57,9	48,2	67,5	440	120,1	19,1	64,7	16,2	38	33	29	NAMUR
76,9	**72,0**	**81,7**	**5304**	**123,1**	**18,0**	**67,1**	**14,9**	**19**	**54**	**28**	**DANMARK**
65,4	**57,5**	**73,2**	**82029**	**229,8**	**16,0**	**68,2**	**15,8**	**18**	**58**	**24**	**DEUTSCHLAND**
69,5	61,1	77,7	10411	291,2	16,9	68,0	15,1	21	54	25	BADEN-WÜRTTEMBERG
70,7	62,2	78,9	3893	368,8	16,8	68,3	14,9	22	53	25	STUTTGART
68,1	60,1	75,7	2663	384,9	16,0	68,4	15,6	19	53	28	KARLSRUHE
68,5	59,3	77,9	2111	225,6	17,2	67,3	15,5	21	56	22	FREIBURG
70,1	62,3	77,7	1744	195,6	18,1	67,4	14,5	21	55	24	TÜBINGEN
71,2	62,9	79,4	12077	171,2	16,5	67,8	15,7	21	57	23	BAYERN
72,9	65,2	80,8	3994	227,8	15,6	69,2	15,1	18	53	29	OBERBAYERN
71,1	62,1	80,0	1161	112,4	17,3	67,1	15,5	25	60	15	NIEDERBAYERN
70,6	61,5	79,6	1067	110,1	17,3	67,2	15,5	24	59	17	OBERPFALZ
69,7	62,7	76,7	1114	154,0	16,3	66,7	17,0	21	59	20	OBERFRANKEN
69,4	61,3	77,3	1678	231,6	16,1	67,9	16,0	24	54	23	MITTELFRANKEN
68,1	59,0	76,7	1328	155,7	17,4	66,9	15,7	22	59	19	UNTERFRANKEN
72,2	62,9	81,3	1735	173,6	17,5	66,6	15,8	19	60	21	SCHWABEN
60,7	57,1	64,1	3414	3832,8	14,4	71,9	13,7	17	49	34	BERLIN
63,0	58,5	67,4	2582	87,6	15,4	70,6	14,0	9	60	31	BRANDENBURG
60,4	53,5	67,4	671	1659,8	13,9	68,3	17,7	24	57	19	BREMEN
66,5	61,2	71,7	1702	2253,4	13,5	69,8	16,8	21	56	23	HAMBURG
66,4	57,8	74,9	6033	285,7	15,6	68,5	15,9	20	56	24	HESSEN
67,5	59,1	75,9	3700	497,0	15,1	69,5	15,4	19	54	26	DARMSTADT
64,7	55,4	73,7	1061	197,2	16,6	67,6	15,8	20	58	22	GIEßEN
64,3	55,5	73,1	1272	153,5	16,2	66,3	17,5	20	60	20	KASSEL
61,3	56,5	66,0	1803	77,8	16,0	70,6	13,3	10	62	28	MECKLENBURG-VORPOMMERN
64,6	55,5	73,5	7856	165,0	16,6	67,2	16,2	18	62	20	NIEDERSACHSEN
62,6	53,9	71,2	1672	206,5	15,5	67,2	17,4	16	64	20	BRAUNSCHWEIG
65,0	56,6	73,3	2150	237,6	15,2	67,6	17,2	19	60	22	HANNOVER
66,1	56,7	75,3	1638	105,7	17,0	67,2	15,8	16	64	20	LÜNEBURG
64,7	54,9	74,2	2396	160,1	18,3	66,9	14,8	20	63	18	WESER-EMS
62,4	52,5	72,1	17975	527,5	16,3	67,5	16,2	23	58	20	NORDRHEIN-WESTFALEN
61,9	51,6	72,3	5277	997,7	15,5	67,7	16,7	24	57	20	DÜSSELDORF
63,0	53,3	72,4	4243	576,1	16,1	68,6	15,3	22	55	23	KÖLN
61,5	51,8	70,9	2598	376,3	17,6	67,0	15,4	21	61	18	MÜNSTER
65,7	56,4	74,7	2039	312,8	17,6	65,9	16,5	21	62	18	DETMOLD
61,3	51,3	71,1	3819	477,2	16,2	67,1	16,7	24	59	17	ARNSBERG
65,6	56,6	74,4	4021	202,6	16,5	66,9	16,6	21	58	21	RHEINLAND-PFALZ
64,4	55,5	73,1	1510	187,1	16,9	65,9	17,2	21	60	20	KOBLENZ
64,3	53,4	74,9	510	103,5	16,7	65,9	17,4	20	60	20	TRIER
66,8	58,1	75,1	2001	292,0	16,2	67,8	16,0	22	56	22	RHEINHESSEN-PFALZ
61,4	52,6	69,9	1078	419,2	15,2	67,5	17,3	20	62	18	SAARLAND
64,0	58,8	69,2	4506	244,7	14,1	68,7	17,2	6	63	31	SACHSEN
:	:	:	1663	272,8	13,8	67,8	18,4	:	:	:	CHEMNITZ
:	:	:	1742	219,6	14,6	68,9	16,6	:	:	:	DRESDEN
:	:	:	1102	251,2	13,9	69,6	16,5	:	:	:	LEIPZIG
59,7	54,4	64,8	2690	131,5	14,7	69,3	16,0	9	64	27	SACHSEN-ANHALT
58,8	53,3	64,1	562	131,4	14,4	69,4	16,2	10	63	26	DESSAU
57,7	52,0	63,3	890	201,0	14,3	69,3	16,4	9	66	26	HALLE
61,6	56,7	66,2	1237	105,4	15,1	69,3	15,6	10	62	29	MAGDEBURG
66,8	58,8	74,6	2761	175,1	15,9	68,1	16,0	18	60	23	SCHLESWIG-HOLSTEIN

Region	Economy							Labour market				
	GDP per head (PPS), EUR15=100			Employment by sector (% total), 1999			Eur. patent applications per million inh, av 1997-98-99	Unemployment rate (%)				
	1988	1998	average 1996-97-98	Agriculture	Industry	Services		Total, 1989	Total, 1999	Long term unemployed, 1999 (% total unempl.)	Women, 1999	Youth, 1999
THÜRINGEN	:	69,9	70,1	3,8	34,1	62,1	49,0	:	14,3	37,7	16,5	10,3
ELLADA	**58,1**	**66,0**	**66,3**	**17,8**	**23,0**	**59,2**	**6,2**	**6,7**	**11,7**	**55,3**	**17,9**	**31,7**
VOREIA ELLADA	56,6	62,6	63,0	26,0	23,8	50,2	3,5	6,5	12,4	51,5	19,8	32,3
ANATOLIKI MAKEDONIA, THRAKI	52,2	55,4	55,6	38,4	19,3	42,3	1,2	6,7	12,8	50,9	19,2	31,5
KENTRIKI MAKEDONIA	58,3	67,6	68,0	19,1	25,7	55,1	5,7	6,6	11,7	47,1	18,8	30,2
DYTIKI MAKEDONIA	62,6	59,9	60,2	24,5	35,2	40,3	0,0	5,7	14,6	54,6	24,2	47,0
THESSALIA	53,8	57,4	57,6	32,7	19,0	48,3	1,4	6,5	12,8	61,1	21,7	33,5
KENTRIKI ELLADA	56,0	59,3	59,5	32,5	20,7	46,8	0,9	5,5	11,0	60,5	17,9	34,4
IPEIROS	43,5	41,8	42,1	24,7	24,1	51,2	0,7	4,0	13,9	64,6	22,1	42,6
IONIA NISIA	54,6	55,7	56,3	25,1	16,0	58,9	0,0	2,8	5,5	33,9	8,1	20,7
DYTIKI ELLADA	48,2	52,6	52,9	35,0	16,9	48,1	2,0	7,2	11,8	61,3	18,6	36,9
STEREA ELLADA	71,6	84,2	84,4	27,9	29,7	42,4	1,0	5,9	14,2	64,4	24,9	38,0
PELOPONNISOS	58,0	52,7	52,7	40,2	17,4	42,5	0,5	4,8	7,6	55,3	12,5	27,2
ATTIKI	61,1	73,8	74,0	1,0	25,3	73,7	13,7	8,5	12,5	57,8	17,8	33,2
NISIA AIGAIOU, KRITI	57,6	68,4	68,7	24,6	16,7	58,7	2,8	3,5	7,9	44,0	12,0	19,8
VOREIO AIGAIO	44,5	60,8	60,8	17,9	19,7	62,4	0,0	5,9	11,3	57,5	15,6	30,1
NOTIO AIGAIO	68,4	76,9	77,4	8,3	23,2	68,5	1,2	4,4	7,3	25,3	11,6	15,7
KRITI	57,3	66,8	67,1	33,0	13,2	53,8	4,4	2,4	7,3	47,5	11,5	19,9
ESPAÑA	**74,0**	**81,1**	**80,2**	**7,4**	**30,6**	**62,0**	**18,5**	**17,4**	**16,1**	**45,0**	**23,4**	**30,4**
NOROESTE	63,3	67,7	67,3	15,6	30,3	54,2	6,8	14,2	17,0	53,3	24,4	36,1
GALICIA	57,9	64,2	64,1	18,6	29,2	52,2	6,8	12,5	16,8	52,2	23,8	33,3
PRINCIPADO DE ASTURIAS	71,9	72,4	71,8	10,3	30,8	59,0	7,4	17,4	18,2	54,3	25,9	45,2
CANTABRIA	73,8	76,3	74,8	8,7	35,6	55,7	5,3	17,6	15,7	57,4	24,9	33,7
NORESTE	87,1	96,4	94,7	5,4	37,2	57,5	29,9	16,0	12,0	47,7	18,8	23,8
PAIS VASCO	88,7	99,1	96,1	2,2	38,5	59,3	30,5	20,0	14,7	49,9	21,7	31,3
COMUNIDAD FORAL DE NAVARRA	91,4	106,2	105,4	8,3	38,7	53,0	44,1	11,5	8,5	44,1	14,6	15,7
LA RIOJA	83,7	93,2	91,6	10,9	42,7	46,5	7,7	9,6	7,1	54,0	13,0	16,1
ARAGÓN	83,1	88,1	88,1	8,3	33,0	58,8	27,4	11,9	9,5	41,9	16,1	16,6
COMUNIDAD DE MADRID	91,0	110,2	107,5	1,0	25,8	73,2	30,3	13,3	13,3	48,5	18,8	25,4
CENTRO (E)	62,1	67,0	67,0	12,0	30,3	57,7	7,0	18,5	17,6	40,6	28,2	33,8
CASTILLA Y LEÓN	68,1	74,2	74,4	11,1	29,2	59,7	8,2	17,4	15,6	47,3	25,9	36,1
CASTILLA-LA MANCHA	61,1	67,0	66,6	11,7	34,6	53,8	7,4	14,8	15,6	38,2	26,1	27,1
EXTREMADURA	49,8	50,2	50,4	15,0	25,6	59,5	3,9	26,8	25,5	33,3	37,3	41,3
ESTE	84,1	91,9	90,9	4,0	35,4	60,6	31,1	14,4	11,8	45,9	17,2	22,5
CATALUÑA	89,2	100,4	99,6	3,5	37,1	59,5	41,9	14,3	10,8	51,4	15,5	20,2
COMUNIDAD VALENCIANA	73,8	77,2	76,2	5,3	34,8	59,9	18,4	15,3	14,3	39,9	21,3	26,9
ISLAS BALEARES	95,5	99,5	97,8	2,2	24,6	73,2	10,6	10,3	7,2	39,0	10,5	14,9
SUR	57,6	59,2	59,1	11,7	25,3	63,0	5,3	25,8	25,1	42,5	35,6	41,3
ANDALUCÍA	55,9	57,9	57,8	11,5	25,1	63,4	5,0	27,2	26,8	42,5	37,5	43,2
REGIÓN DE MURCIA	67,9	67,2	66,8	13,6	28,2	58,2	7,7	16,2	14,4	39,5	23,2	27,4
CEUTA Y MELILLA	65,5	67,0	66,0	0,5	10,4	89,1	:	31,6	25,5	54,0	38,0	52,2
CANARIAS	74,9	77,1	75,4	6,6	19,8	73,7	5,6	22,5	14,4	36,6	20,5	29,8
FRANCE	**108,4**	**98,6**	**99,6**	**4,3**	**26,3**	**69,4**	**116,5**	**9,3**	**11,4**	**41,3**	**13,3**	**22,4**
ÎLE DE FRANCE	165,1	151,7	154,3	0,5	19,7	79,8	252,7	7,7	10,3	41,3	10,9	15,8
BASSIN PARISIEN	97,3	88,7	89,4	5,9	30,4	63,7	80,5	9,6	11,5	42,2	13,9	25,1
CHAMPAGNE-ARDENNE	98,9	92,3	92,1	8,6	28,2	63,1	55,5	10,3	11,8	37,6	14,3	26,9
PICARDIE	89,0	83,7	84,2	4,0	32,1	63,9	86,7	10,9	13,7	44,4	16,4	29,2
HAUTE-NORMANDIE	110,3	90,6	91,9	2,4	32,6	65,0	89,8	10,6	12,2	45,9	14,7	26,7
CENTRE	99,6	90,5	91,5	6,0	31,3	62,8	94,0	8,6	10,0	39,4	12,4	20,1
BASSE-NORMANDIE	87,9	84,6	85,5	9,7	25,9	64,4	54,6	8,6	11,7	42,5	13,6	26,8
BOURGOGNE	96,1	90,1	90,6	6,7	30,1	63,3	86,3	8,9	9,9	41,6	12,5	22,7
NORD - PAS-DE-CALAIS	89,2	79,4	79,7	1,7	29,4	68,9	37,2	12,6	15,8	44,9	17,9	36,3
EST	98,3	90,9	91,8	3,0	35,3	61,7	103,2	7,5	8,4	36,2	10,2	17,7
LORRAINE	91,5	83,3	84,2	3,0	32,2	64,8	70,1	9,1	10,0	41,3	12,3	23,4
ALSACE	110,7	103,5	104,9	1,9	37,1	61,0	149,3	5,3	6,6	26,9	7,5	12,2
FRANCHE-COMTÉ	94,7	87,3	87,6	4,7	38,3	57,0	100,5	8,0	8,3	36,1	10,8	17,7
OUEST	90,2	83,8	84,6	7,6	29,2	63,2	53,1	9,3	9,7	41,0	12,1	21,0
PAYS DE LA LOIRE	94,1	86,8	87,4	6,6	32,3	61,1	51,8	9,3	9,4	40,2	12,1	19,1
BRETAGNE	88,2	82,7	83,6	7,9	27,1	65,0	58,8	8,6	9,3	40,3	11,4	21,9
POITOU-CHARENTES	86,1	80,0	80,8	8,9	26,7	64,4	45,6	10,5	11,3	43,6	13,6	23,8
SUD-OUEST	92,5	87,7	87,9	7,7	23,1	69,2	60,8	10,0	11,5	42,7	14,1	23,9
AQUITAINE	98,8	89,4	89,5	7,7	22,0	70,3	47,3	11,3	11,7	44,5	14,5	24,8
MIDI-PYRÉNÉES	88,7	87,8	87,9	7,2	23,9	68,9	82,7	9,1	11,8	42,1	14,5	23,4
LIMOUSIN	81,2	80,5	81,2	9,9	25,4	64,7	38,0	8,2	8,9	34,9	10,8	21,7
CENTRE-EST	103,4	97,3	98,0	4,4	29,5	66,1	179,1	8,2	10,3	37,9	12,3	20,2
RHÔNE-ALPES	107,8	100,8	101,6	3,6	30,0	66,5	202,3	7,9	10,3	37,9	12,2	19,5
AUVERGNE	86,1	81,9	82,5	8,1	27,5	64,4	79,6	9,2	10,0	37,8	12,8	23,6

Employment rate (% popn 15-64), 1999			Demography					Education			Region
					% population aged: (1998)			Educational attainment of those aged 25-59 (% total), 1999			
Total	Women	Men	Population (000), 1998	Popn density (inh./km²), 1998	Under 15	15-64	65+	Low	Medium	High	
65,1	60,4	69,6	2470	152,7	14,8	69,7	15,5	7	62	31	THÜRINGEN
56,9	**41,5**	**73,2**	**10516**	**79,9**	**15,8**	**67,7**	**16,5**	**49**	**33**	**18**	**ELLADA**
56,5	39,7	74,3	3404	60,3	16,0	68,0	16,0	54	28	17	VOREIA ELLADA
60,0	45,7	75,8	562	39,7	16,5	66,6	16,9	61	25	14	ANATOLIKI MAKEDONIA, THRAKI
55,5	38,6	73,4	1796	95,5	15,8	69,1	15,1	49	31	19	KENTRIKI MAKEDONIA
54,7	36,2	73,7	303	32,1	16,6	66,6	16,7	57	28	15	DYTIKI MAKEDONIA
57,0	38,9	75,8	743	52,9	16,0	66,7	17,3	60	24	16	THESSALIA
59,7	43,2	76,2	2646	49,1	15,0	66,5	18,5	61	27	12	KENTRIKI ELLADA
54,2	39,1	70,3	373	40,5	14,2	67,2	18,6	62	25	14	IPEIROS
70,2	55,1	84,5	203	87,9	15,6	64,3	20,1	60	27	13	IONIA NISIA
57,7	41,8	73,7	737	65,0	16,6	66,7	16,7	58	29	13	DYTIKI ELLADA
57,1	38,0	75,5	663	42,6	14,4	67,7	17,9	67	24	9	STEREA ELLADA
64,3	48,4	80,3	670	43,2	14,1	65,4	20,5	58	29	13	PELOPONNISOS
54,3	40,5	69,3	3450	905,8	15,6	69,2	15,2	36	41	23	ATTIKI
64,5	49,3	79,9	1017	58,3	17,5	65,8	16,7	60	27	13	NISIA AIGAIOU, KRITI
53,8	34,5	74,5	184	47,8	16,0	61,3	22,7	58	27	15	VOREIO AIGAIO
61,3	43,9	78,7	271	51,2	18,1	67,2	14,7	67	25	8	NOTIO AIGAIO
69,4	56,9	81,9	563	67,5	17,6	65,8	16,6	58	28	15	KRITI
52,8	**37,6**	**68,4**	**39371**	**78,0**	**15,6**	**68,3**	**16,1**	**62**	**16**	**22**	**ESPAÑA**
50,6	37,4	64,1	4303	95,0	13,1	68,0	19,0	65	15	20	NOROESTE
53,0	40,7	65,7	2717	92,3	13,4	67,8	18,8	67	14	19	GALICIA
45,5	32,6	58,5	1060	100,4	11,9	68,3	19,9	63	15	23	PRINCIPADO DE ASTURIAS
48,5	30,7	67,1	526	99,4	13,7	68,5	17,8	62	17	22	CANTABRIA
56,1	40,7	71,9	4018	57,1	13,0	69,2	17,8	56	17	27	NORESTE
54,5	40,9	68,9	2054	282,9	12,6	71,3	16,1	52	18	30	PAIS VASCO
59,4	42,7	76,1	529	50,8	13,8	68,9	17,3	56	15	29	COMUNIDAD FORAL DE NAVARRA
56,8	38,9	74,2	260	51,5	13,6	67,5	18,9	64	15	21	LA RIOJA
57,6	39,8	75,1	1175	24,7	13,2	66,1	20,7	61	16	23	ARAGÓN
55,1	41,1	69,8	5028	628,9	15,1	70,3	14,6	50	19	30	COMUNIDAD DE MADRID
51,1	32,7	69,7	5284	24,6	15,3	65,3	19,4	67	14	20	CENTRO (E)
52,2	35,0	69,7	2496	26,5	13,2	66,0	20,8	60	16	24	CASTILLA Y LEÓN
52,7	32,0	73,0	1707	21,5	16,9	64,3	18,7	73	12	15	CASTILLA-LA MANCHA
46,2	28,3	64,1	1081	26,0	17,7	64,9	17,3	73	11	16	EXTREMADURA
58,6	44,1	73,8	10727	178,0	15,0	68,7	16,2	62	17	21	ESTE
60,5	46,7	74,8	6059	189,7	14,3	68,9	16,8	59	19	22	CATALUÑA
55,0	39,3	71,7	3931	168,7	15,8	68,7	15,5	66	15	19	COMUNIDAD VALENCIANA
62,6	48,7	76,8	737	147,0	17,1	67,7	15,3	67	17	16	ISLAS BALEARES
44,4	28,6	60,8	8422	85,4	18,9	67,6	13,5	68	13	19	SUR
43,3	27,7	59,4	7188	82,4	18,8	67,7	13,5	69	13	19	ANDALUCÍA
52,0	34,5	69,6	1098	97,0	18,8	67,5	13,6	65	15	20	REGIÓN DE MURCIA
44,3	26,3	63,2	136	4390,3	22,4	66,1	11,5	59	21	21	CEUTA Y MELILLA
52,7	38,8	66,9	1590	219,5	18,1	70,7	11,3	67	15	18	CANARIAS
60,7	**53,6**	**67,9**	**58398**	**107,4**	**19,1**	**65,4**	**15,5**	**37**	**41**	**22**	**FRANCE**
64,8	59,9	69,9	10929	909,9	20,1	68,5	11,5	33	35	32	ÎLE DE FRANCE
61,2	53,8	68,7	10454	71,8	19,6	64,7	15,8	42	42	17	BASSIN PARISIEN
58,3	51,1	65,4	1345	52,5	19,5	65,4	15,1	46	39	15	CHAMPAGNE-ARDENNE
59,0	51,1	67,2	1857	95,7	21,2	65,3	13,5	45	40	15	PICARDIE
60,2	52,4	67,8	1780	144,5	20,9	65,3	13,8	43	41	16	HAUTE-NORMANDIE
64,0	56,8	71,5	2439	62,3	18,7	64,2	17,1	39	44	18	CENTRE
61,7	56,1	67,5	1420	80,8	19,3	64,2	16,5	42	41	17	BASSE-NORMANDIE
62,7	54,4	71,0	1612	51,0	17,7	63,9	18,4	37	46	17	BOURGOGNE
51,0	41,6	60,6	3997	321,9	21,7	64,8	13,5	45	40	16	NORD - PAS-DE-CALAIS
61,9	54,1	69,7	5155	107,3	19,4	66,1	14,6	37	45	19	EST
58,7	50,0	67,4	2312	98,2	19,3	65,8	14,9	38	44	18	LORRAINE
65,7	58,9	72,6	1726	208,5	19,6	67,0	13,5	33	48	19	ALSACE
62,6	54,7	70,2	1117	68,9	19,2	65,3	15,5	41	41	18	FRANCHE-COMTÉ
62,2	55,4	69,2	7744	91,0	18,4	64,3	17,4	34	47	19	OUEST
62,2	54,6	69,9	3210	100,1	19,3	64,7	16,0	36	47	18	PAYS DE LA LOIRE
61,9	55,5	68,4	2896	106,4	18,2	64,3	17,5	32	48	21	BRETAGNE
63,0	56,8	69,3	1637	63,4	16,9	63,4	19,7	37	46	17	POITOU-CHARENTES
60,8	54,5	67,3	6152	59,4	16,5	64,4	19,1	32	46	22	SUD-OUEST
60,4	53,5	67,4	2898	70,2	16,8	64,7	18,5	33	46	22	AQUITAINE
61,3	55,3	67,4	2542	56,1	16,7	64,5	18,8	31	45	25	MIDI-PYRÉNÉES
61,3	56,0	66,7	712	42,0	14,5	62,7	22,8	35	49	16	LIMOUSIN
62,1	54,3	70,0	6934	99,5	19,1	65,8	15,1	34	43	23	CENTRE-EST
62,7	54,8	70,8	5625	128,7	19,7	66,0	14,3	33	43	24	RHÔNE-ALPES
59,5	52,0	66,9	1310	50,3	16,1	64,9	19,0	36	44	20	AUVERGNE

Region	Economy							Labour market				
	GDP per head (PPS), EUR15=100			Employment by sector (% total), 1999			Eur. patent applications per million inh, av 1997-98-99	Unemployment rate (%)				
	1988	1998	average 1996-97-98	Agriculture	Industry	Services		Total, 1989	Total, 1999	Long term unemployed, 1999 (% total unempl.)	Women, 1999	Youth, 1999
MÉDITERRANÉE	95,2	85,0	85,9	4,0	19,3	76,7	67,8	12,0	16,5	42,1	19,1	26,2
LANGUEDOC-ROUSSILLON	83,7	75,7	76,6	6,9	18,7	74,4	49,4	13,1	17,8	45,7	20,9	28,0
PROVENCE-ALPES-CÔTE D'AZUR	101,6	90,2	91,2	2,4	19,8	77,8	80,7	11,5	16,0	40,6	18,3	25,4
CORSE	85,7	77,0	75,7	8,2	14,3	77,0	7,1	9,4	14,3	33,1	18,8	24,8
DÉPARTEMENTS D'OUTRE-MER	43,9	53,3	53,6	4,8	14,5	80,7	1,8	:	32,0	57,7	36,3	51,2
GUADELOUPE	37,0	52,4	52,7	3,6	14,6	81,8	1,9	:	:	62,6	:	:
MARTINIQUE	51,0	59,8	60,2	6,5	13,0	80,6	0,1	:	:	67,4	:	:
GUYANE	49,4	53,4	53,9	3,2	18,1	78,7	0,7	:	:	44,0	:	:
RÉUNION	43,0	50,0	50,2	5,0	14,6	80,4	2,5	:	:	52,4	:	:
IRELAND	**65,9**	**108,1**	**102,0**	**8,5**	**28,3**	**62,5**	**51,5**	**14,9**	**5,9**	**56,0**	**5,7**	**8,6**
BORDER, MIDLAND AND WESTERN	:	79,3	75,3	:	:	:	25,3	14,7	7,1	:	6,9	10,1
SOUTHERN AND EASTERN	:	118,5	111,6	:	:	:	48,9	14,9	5,5	:	5,4	8,1
ITALIA	**100,2**	**101,1**	**102,2**	**5,4**	**32,4**	**62,2**	**59,7**	**10,0**	**11,7**	**60,8**	**16,1**	**32,9**
NORD OVEST	116,5	114,5	116,0	3,8	35,2	61,0	83,2	6,6	8,0	61,9	12,2	23,5
PIEMONTE	118,0	117,2	119,0	3,8	39,8	56,5	98,5	6,0	7,9	56,7	12,6	22,4
VALLE D'AOSTA	127,8	129,8	133,6	5,4	23,3	71,3	8,1	3,7	5,6	18,8	6,8	12,8
LIGURIA	112,1	106,1	106,7	3,6	23,2	73,2	48,5	8,4	10,8	60,9	15,2	31,2
LOMBARDIA	131,9	134,7	136,2	2,1	41,1	56,8	131,4	3,5	4,9	43,7	7,6	13,8
NORD EST	115,2	120,3	122,1	5,3	39,0	55,7	79,8	4,5	4,7	30,1	7,4	11,3
TRENTINO-ALTO ADIGE	117,8	136,1	137,3	8,6	27,0	64,4	44,5	3,2	3,9	13,0	5,6	7,4
VENETO	114,7	118,9	120,6	4,7	43,0	52,3	82,8	4,4	4,9	30,2	8,4	11,5
FRIULI-VENEZIA GIULIA	114,8	113,5	115,9	4,8	33,5	61,7	96,3	5,7	5,6	32,6	9,0	12,1
EMILIA-ROMAGNA	126,3	129,5	131,0	6,7	36,4	56,9	127,7	4,7	4,8	27,0	7,7	12,7
CENTRO (I)	105,1	106,1	107,4	3,9	35,8	60,4	45,5	7,3	7,2	47,7	11,4	19,8
TOSCANA	108,2	110,4	111,4	3,3	34,4	62,3	47,3	7,3	8,2	42,6	12,1	20,8
UMBRIA	95,8	97,5	99,0	5,0	31,7	63,3	36,7	8,4	7,1	54,0	12,0	19,9
MARCHE	102,6	100,5	102,7	4,5	41,3	54,2	46,3	6,8	6,5	47,5	11,1	18,0
LAZIO	111,0	113,3	114,7	2,9	19,0	78,1	39,1	10,0	13,2	68,3	17,8	46,9
ABRUZZO-MOLISE	84,5	82,5	84,4	7,7	33,3	59,1	46,0	10,0	11,6	65,4	18,0	33,3
ABRUZZO	86,4	83,5	85,6	6,5	34,2	59,3	56,3	9,5	10,6	63,0	17,8	31,6
MOLISE	77,5	78,6	79,6	12,5	29,2	58,3	6,0	12,1	16,6	65,8	24,7	50,4
CAMPANIA	67,4	64,0	64,5	7,5	24,5	68,0	8,7	20,8	23,7	73,0	32,2	60,9
SUD	66,5	64,4	65,0	12,0	24,9	63,1	7,6	17,4	21,9	62,6	33,0	54,0
PUGLIA	72,2	65,1	66,0	11,8	26,6	61,6	7,8	13,8	19,8	61,9	31,6	49,0
BASILICATA	63,4	72,0	72,3	12,8	31,8	55,4	16,4	18,9	17,3	56,2	26,4	52,8
CALABRIA	56,5	60,7	61,0	12,1	18,7	69,2	4,4	23,2	28,7	62,1	41,4	65,2
SICILIA	65,8	65,2	65,7	9,1	19,3	71,6	11,3	20,0	24,8	66,4	36,2	60,2
SARDEGNA	72,8	76,3	76,1	8,1	22,7	69,2	8,1	17,6	21,9	57,9	31,7	56,7
LUXEMBOURG (GRAND-DUCHÉ)	**139,1**	**175,8**	**173,2**	**1,9**	**21,9**	**75,8**	**145,0**	**1,7**	**2,4**	**32,2**	**3,3**	**6,7**
NEDERLAND	**97,7**	**113,2**	**111,0**	**3,0**	**21,2**	**70,6**	**165,8**	**8,5**	**3,3**	**41,5**	**4,6**	**6,7**
NOORD-NEDERLAND	94,2	104,9	106,1	3,9	24,9	65,9	68,5	10,8	5,3	47,0	7,7	10,8
GRONINGEN	119,1	130,8	135,5	2,4	23,5	67,8	71,1	12,4	6,0	48,7	8,7	13,7
FRIESLAND	79,7	93,3	91,6	3,8	26,2	65,2	55,8	11,0	4,1	46,3	6,3	7,7
DRENTHE	82,4	89,4	90,0	5,9	24,8	64,6	82,1	8,2	5,9	45,6	8,4	11,8
OOST-NEDERLAND	83,9	96,4	94,9	3,6	23,6	67,6	119,7	8,9	3,0	39,1	4,3	5,8
OVERIJSSEL	86,2	96,9	95,3	4,0	28,4	62,4	122,3	9,0	3,1	31,5	4,5	5,3
GELDERLAND	83,9	98,6	96,9	3,5	21,6	69,5	123,1	8,8	3,0	41,4	4,2	6,4
FLEVOLAND	72,7	80,8	80,1	3,1	18,9	73,6	88,6	8,7	3,1	50,3	4,4	4,2
WEST-NEDERLAND	107,0	125,3	122,1	2,3	16,3	76,3	116,2	8,0	3,1	42,1	4,4	6,5
UTRECHT	103,4	142,4	137,1	1,1	15,7	78,5	139,5	7,3	2,3	52,1	3,3	3,5
NOORD-HOLLAND	111,7	131,9	128,6	2,3	15,0	77,8	103,5	8,1	3,3	43,4	4,6	7,4
ZUID-HOLLAND	104,7	117,7	115,0	2,6	16,5	75,7	121,5	8,4	3,2	38,8	4,5	6,7
ZEELAND	107,0	100,6	99,9	4,0	26,5	63,9	84,8	6,7	3,5	41,6	4,0	6,7
ZUID-NEDERLAND	92,1	107,1	104,8	3,7	27,6	63,4	358,9	8,1	3,1	38,1	4,3	6,5
NOORD-BRABANT	93,5	111,9	109,5	3,6	27,5	64,1	445,4	8,1	2,8	36,8	4,0	5,9
LIMBURG (NL)	89,5	97,1	95,4	3,8	27,7	62,0	182,1	8,0	3,7	40,3	5,2	8,1
ÖSTERREICH	**102,2**	**111,7**	**111,6**	**6,2**	**29,8**	**64,0**	**125,2**	**3,1**	**4,0**	**37,1**	**4,8**	**5,3**
OSTÖSTERREICH	114,0	123,1	123,6	5,3	26,6	68,1	105,9	:	4,5	59,0	4,8	4,9
BURGENLAND	61,1	68,8	69,5	6,3	34,3	59,5	42,9	3,5	3,3	24,9	4,3	4,3
NIEDERÖSTERREICH	84,4	91,4	89,7	10,1	29,5	60,5	106,9	2,7	3,1	39,1	3,7	3,5
WIEN	152,0	162,8	165,4	0,8	22,8	76,4	115,8	5,3	5,9	71,5	5,9	6,7
SÜDÖSTERREICH	79,3	90,6	90,4	8,3	32,8	58,9	104,4	:	4,3	29,4	5,6	6,5
KÄRNTEN	80,9	91,6	91,2	7,8	30,6	61,6	95,9	3,2	4,7	14,0	6,3	7,3
STEIERMARK	78,6	90,1	90,1	8,5	33,8	57,7	108,3	3,2	4,1	37,5	5,3	6,2
WESTÖSTERREICH	102,7	111,2	110,4	6,1	31,7	62,2	157,2	:	3,4	8,1	4,3	5,1
OBERÖSTERREICH	97,8	104,9	104,1	8,3	34,9	56,9	160,1	2,4	2,7	7,7	3,3	3,9
SALZBURG	115,7	124,8	124,8	4,9	26,5	68,6	101,4	2,0	3,4	4,1	4,2	5,8

Employment rate (% popn 15-64), 1999			Demography					Education			Region
					% population aged: (1998)			Educational attainment of those aged 25-59 (% total), 1999			
Total	Women	Men	Population (000), 1998	Popn density (inh./km²), 1998	Under 15	15-64	65+	Low	Medium	High	
54,0	46,0	62,5	7034	104,3	18,1	63,7	18,3	40	40	20	MÉDITERRANÉE
52,6	44,6	61,1	2283	83,4	17,7	63,4	18,9	41	40	19	LANGUEDOC-ROUSSILLON
55,4	47,6	63,8	4491	143,0	18,3	63,7	18,0	38	41	21	PROVENCE-ALPES-CÔTE D'AZUR
42,8	32,3	53,4	260	29,9	17,5	64,6	17,8	61	25	13	CORSE
:	:	:	1693	19,0	:	:	:	:	:	:	DÉPARTEMENTS D'OUTRE-MER
:	:	:	438	256,7	:	:	:	:	:	:	GUADELOUPE
:	:	:	401	355,9	:	:	:	:	:	:	MARTINIQUE
:	:	:	164	2,0	:	:	:	:	:	:	GUYANE
:	:	:	690	273,6	:	:	:	:	:	:	RÉUNION
63,9	**51,9**	**75,7**	**3705**	**52,7**	**22,7**	**66,0**	**11,4**	**49**	**28**	**23**	**IRELAND**
:	:	:	979	29,4	:	:	:	46	28	26	BORDER, MIDLAND AND WESTERN
:	:	:	2726	73,7	:	:	:	52	28	20	SOUTHERN AND EASTERN
53,4	**38,6**	**68,3**	**57588**	**191,1**	**14,6**	**68,0**	**17,4**	**54**	**36**	**10**	**ITALIA**
58,8	46,4	71,1	6047	177,4	11,4	67,7	20,9	53	38	9	NORD OVEST
59,6	46,9	72,2	4290	168,9	11,8	68,4	19,9	54	37	9	PIEMONTE
63,5	54,3	72,4	120	36,7	12,4	69,3	18,2	56	36	9	VALLE D'AOSTA
56,2	44,6	67,9	1637	302,2	10,3	65,7	24,0	50	40	11	LIGURIA
61,3	47,8	74,8	9009	377,4	12,9	70,3	16,9	52	37	11	LOMBARDIA
61,4	47,7	74,8	6590	165,5	13,1	69,0	17,9	55	36	9	NORD EST
64,4	51,6	76,9	927	68,1	15,7	67,8	16,5	50	42	8	TRENTINO-ALTO ADIGE
61,2	46,9	75,2	4478	243,9	13,1	69,5	17,4	56	35	9	VENETO
59,7	47,6	71,8	1184	151,0	11,0	68,1	20,9	52	39	9	FRIULI-VENEZIA GIULIA
65,5	54,7	76,4	3953	178,7	10,9	67,4	21,7	50	39	11	EMILIA-ROMAGNA
59,1	46,7	71,7	5813	141,3	11,9	66,7	21,3	54	36	10	CENTRO (I)
58,7	46,3	71,3	3528	153,4	11,5	67,1	21,5	55	36	9	TOSCANA
58,3	45,1	71,5	832	98,4	12,4	66,0	21,6	46	42	13	UMBRIA
60,7	48,7	72,8	1453	149,9	12,9	66,3	20,8	54	35	12	MARCHE
51,9	37,1	67,3	5249	304,7	14,2	69,4	16,4	45	42	13	LAZIO
51,9	35,0	68,9	1606	105,4	15,1	65,9	19,1	51	39	10	ABRUZZO-MOLISE
52,4	35,3	69,7	1277	118,3	15,0	66,1	18,9	51	40	10	ABRUZZO
49,9	33,9	66,0	329	74,2	15,4	65,0	19,6	55	34	11	MOLISE
40,7	23,5	58,3	5795	426,2	19,9	67,1	12,9	59	32	10	CAMPANIA
42,0	23,9	60,6	6765	152,3	17,9	67,1	15,0	59	32	9	SUD
43,1	23,6	63,4	4088	211,2	17,9	67,7	14,4	61	30	9	PUGLIA
44,4	29,4	59,6	609	61,0	17,1	66,1	16,7	58	35	8	BASILICATA
39,1	23,0	55,3	2068	137,1	18,2	66,2	15,6	56	34	10	CALABRIA
39,7	21,5	58,7	5103	198,5	18,5	66,1	15,3	60	30	10	SICILIA
44,9	29,4	60,7	1658	68,8	15,3	70,1	14,5	62	31	8	SARDEGNA
61,8	**48,7**	**74,7**	**427**	**164,9**	**18,7**	**67,0**	**14,3**	**36**	**45**	**19**	**LUXEMBOURG (GRAND-DUCHÉ)**
71,4	**61,5**	**81,1**	**15707**	**463,6**	**18,4**	**68,1**	**13,5**	**34**	**43**	**23**	**NEDERLAND**
68,1	58,0	77,8	1645	196,9	18,1	67,4	14,5	36	45	19	NOORD-NEDERLAND
66,9	56,4	77,2	559	238,8	16,7	68,8	14,5	34	43	23	GRONINGEN
70,4	59,6	80,6	620	184,4	19,0	66,7	14,2	36	47	18	FRIESLAND
66,5	57,9	74,7	466	175,7	18,4	66,6	15,0	38	45	17	DRENTHE
71,7	61,0	82,1	3268	335,2	19,4	67,5	13,1	35	44	21	OOST-NEDERLAND
71,2	59,7	82,2	1067	319,9	19,4	67,2	13,5	37	45	19	OVERIJSSEL
71,8	61,6	81,7	1901	381,1	18,8	67,8	13,4	34	43	23	GELDERLAND
72,8	61,1	84,5	300	210,6	24,1	66,9	9,0	36	45	19	FLEVOLAND
72,0	62,8	81,0	7328	844,2	18,2	68,1	13,7	32	42	26	WEST-NEDERLAND
74,7	64,1	85,5	1094	802,1	18,8	68,7	12,4	28	42	30	UTRECHT
72,1	64,7	79,4	2495	938,1	17,6	68,9	13,5	31	43	27	NOORD-HOLLAND
71,2	61,6	80,7	3369	1175,1	18,5	67,6	13,9	33	41	26	ZUID-HOLLAND
69,3	56,8	81,2	370	206,8	18,4	65,3	16,2	39	47	14	ZEELAND
71,6	60,9	81,9	3467	488,3	18,0	69,0	13,0	36	43	21	ZUID-NEDERLAND
72,4	61,7	82,6	2329	472,1	18,5	69,1	12,4	36	43	21	NOORD-BRABANT
70,0	59,2	80,4	1139	525,1	17,2	68,7	14,1	37	43	20	LIMBURG (NL)
68,8	**60,2**	**77,4**	**8078**	**96,3**	**17,2**	**67,4**	**15,4**	**23**	**68**	**9**	**ÖSTERREICH**
69,2	61,6	76,9	3411	144,8	16,0	67,6	16,4	23	66	11	OSTÖSTERREICH
67,9	58,5	76,9	278	70,0	15,7	66,5	17,8	29	66	5	BURGENLAND
69,1	60,4	77,6	1535	80,0	17,2	66,5	16,3	24	69	7	NIEDERÖSTERREICH
69,6	63,1	76,2	1599	3852,8	15,0	68,7	16,2	21	65	15	WIEN
67,0	58,1	76,0	1768	68,2	16,9	66,9	16,2	20	73	7	SÜDÖSTERREICH
65,7	56,2	75,5	564	59,2	17,4	66,6	16,0	18	76	6	KÄRNTEN
67,6	59,0	76,2	1204	73,5	16,7	67,1	16,3	21	71	7	STEIERMARK
69,4	59,9	79,0	2899	84,3	18,7	67,6	13,7	25	67	8	WESTÖSTERREICH
69,2	60,4	77,9	1375	114,8	18,5	66,9	14,6	26	67	7	OBERÖSTERREICH
71,2	63,7	79,2	514	71,8	18,3	68,4	13,4	21	70	10	SALZBURG

Region	Economy							Labour market				
	GDP per head (PPS), EUR15=100			Employment by sector (% total), 1999			Eur. patent applications per million inh, av 1997-98-99	Unemployment rate (%)				
	1988	1998	average 1996-97-98	Agriculture	Industry	Services		Total, 1989	Total, 1999	Long term unemployed, 1999 (% total unempl.)	Women, 1999	Youth, 1999
TIROL	102,0	113,4	111,5	4,8	24,3	70,9	100,7	2,0	4,7	6,9	6,5	7,3
VORARLBERG	105,3	111,8	112,3	2,0	41,2	56,8	337,5	1,5	3,5	18,3	4,7	4,6
PORTUGAL	**58,9**	**75,3**	**73,6**	**12,6**	**35,3**	**52,1**	**2,7**	**4,8**	**4,7**	**39,9**	**5,5**	**9,5**
CONTINENTE	59,9	76,4	74,6	12,5	35,6	52,0	2,8	4,8	4,8	39,9	5,5	9,6
NORTE	51,4	66,0	64,7	12,6	46,9	40,5	1,8	2,9	4,7	40,7	5,4	7,9
CENTRO (P)	46,3	65,0	63,4	26,1	31,8	42,1	2,7	2,9	2,4	35,5	2,7	7,2
LISBOA E VALE DO TEJO	76,3	94,9	92,7	4,4	27,9	67,7	4,1	6,9	6,1	40,0	6,6	12,1
ALENTEJO	57,9	66,8	64,6	13,0	27,1	60,0	1,9	11,6	6,7	40,3	10,5	17,1
ALGARVE	61,4	76,1	74,3	10,3	19,9	69,9	3,0	3,1	3,7	41,8	5,3	10,8
AÇORES	40,8	52,0	51,2	18,4	26,0	55,7	:	2,5	3,7	34,9	6,5	7,6
MADEIRA	39,9	57,5	56,4	15,0	31,2	53,8	:	5,5	3,4	44,7	4,4	7,0
SUOMI/FINLAND	**101,6**	**101,6**	**98,9**	**6,4**	**27,7**	**65,7**	**221,9**	**3,8**	**11,5**	**23,6**	**11,6**	**31,2**
MANNER-SUOMI	101,4	101,5	98,8	6,4	27,7	65,6	221,6	3,8	11,5	23,6	11,6	31,1
ITÄ-SUOMI	81,3	75,1	73,5	12,6	25,5	61,6	63,2	6,4	15,7	21,0	15,3	45,1
VÄLI-SUOMI	90,5	83,6	82,4	11,2	28,0	60,4	114,3	4,5	12,3	21,3	12,9	35,8
POHJOIS-SUOMI	91,3	87,3	86,0	9,3	28,1	62,5	222,6	6,6	15,6	19,9	14,9	41,7
UUSIMAA (SUURALUE)	131,5	141,5	135,5	1,1	22,3	76,3	355,3	1,1	7,0	28,7	7,1	16,1
ETELÄ-SUOMI	96,0	93,0	91,8	6,3	32,9	60,5	177,2	3,9	12,3	24,5	12,9	33,5
ÅLAND	139,2	122,2	112,1	9,1	11,6	78,5	91,8	0,9	2,1	14,8	2,4	:
SVERIGE	**109,7**	**102,4**	**102,2**	**3,0**	**25,0**	**72,0**	**269,3**	**1,7**	**7,6**	**29,1**	**6,9**	**16,3**
STOCKHOLM	130,7	136,1	133,0	0,2	15,6	84,0	464,9	1,0	5,2	28,1	4,8	10,0
ÖSTRA MELLANSVERIGE	100,8	93,2	94,1	2,8	28,3	69,0	257,0	1,7	7,8	26,0	7,1	17,8
SYDSVERIGE	102,4	91,8	89,6	4,5	25,3	70,3	271,1	1,8	9,0	32,9	9,0	18,8
NORRA MELLANSVERIGE	101,9	95,7	95,4	3,8	27,2	69,1	173,8	2,4	9,5	23,9	7,7	22,3
MELLERSTA NORRLAND	110,3	97,8	97,8	4,7	19,4	76,0	128,0	2,6	10,3	24,3	7,3	23,8
ÖVRE NORRLAND	106,4	98,2	98,4	3,7	19,9	76,5	149,4	3,9	9,9	25,9	6,7	23,1
SMÅLAND MED ÖARNA	105,7	100,5	101,5	3,4	34,4	62,3	90,1	1,2	6,2	27,8	6,2	13,0
VÄSTSVERIGE	108,7	90,5	92,9	3,9	28,8	67,1	206,5	1,7	7,7	35,2	7,4	15,2
UNITED KINGDOM	**98,7**	**102,2**	**100,9**	**1,6**	**26,0**	**72,3**	**94,6**	**7,4**	**6,1**	**30,3**	**5,1**	**12,3**
NORTH EAST	82,7	79,5	79,1	1,1	28,5	70,2	69,4	12,3	9,9	35,5	7,1	21,7
TEES VALLEY & DURHAM	83,0	77,5	77,3	1,1	31,2	67,5	59,9	11,9	9,9	38,7	7,2	21,6
NORTHUMBERLAND AND TYNE & WEAR	82,4	81,1	80,6	1,2	26,2	72,4	77,1	12,6	9,8	32,8	7,1	21,9
NORTH WEST (INC. MERSEYSIDE)	92,3	89,6	88,9	1,2	28,2	70,5	75,5	9,7	6,8	30,9	5,3	14,9
CUMBRIA	108,6	99,7	99,2	5,4	33,4	61,3	72,9	6,8	5,6	47,4	4,4	11,5
CHESHIRE	105,1	111,6	111,0	1,8	29,4	68,8	167,0	6,9	4,5	35,6	3,6	9,5
GREATER MANCHESTER	94,1	90,2	89,5	0,5	28,6	70,8	56,7	9,5	6,4	29,4	4,9	13,9
LANCASHIRE	89,3	86,7	86,1	1,3	29,5	69,2	61,7	7,5	5,4	17,0	4,2	12,5
MERSEYSIDE	78,0	72,8	71,8	0,2	22,8	76,8	61,1	15,1	11,7	35,3	9,0	26,5
YORKSHIRE & THE HUMBER	89,4	89,7	88,9	1,2	28,5	70,3	62,1	8,8	7,2	28,1	5,8	14,8
EAST RIDING & NORTH LINCOLNSHIRE	93,6	95,7	94,5	2,6	32,1	65,3	52,7	9,8	8,5	43,5	7,4	16,0
NORTH YORKSHIRE	93,0	99,9	99,7	3,0	24,3	72,7	103,5	5,0	3,9	28,6	3,6	7,2
SOUTH YORKSHIRE	79,0	74,8	74,0	0,4	30,3	69,4	40,6	11,7	8,7	27,3	6,6	19,5
WEST YORKSHIRE	92,8	92,8	92,0	0,5	27,5	71,9	64,5	8,0	6,9	20,5	5,5	14,3
EAST MIDLANDS	94,1	95,3	94,7	2,0	31,6	66,3	89,3	6,4	5,1	26,7	4,4	10,8
DERBYSHIRE & NOTTINGHAMSHIRE	91,0	91,1	90,3	1,1	34,3	64,5	85,9	7,9	6,2	30,7	5,2	12,7
LEICESTERSHIRE, RUTLAND & NORTHANTS	102,9	102,8	102,2	1,5	30,9	67,7	113,0	4,4	4,1	21,4	3,8	8,5
LINCOLNSHIRE	82,9	90,3	90,0	6,2	25,2	68,5	41,5	6,6	4,3	21,7	3,9	10,1
WEST MIDLANDS	90,6	93,0	92,3	1,4	33,0	65,4	77,2	7,6	6,5	28,9	5,5	13,7
HEREFORDSHIRE, WORCESTERSHIRE & WARKS	86,8	98,5	98,4	2,3	30,2	67,4	139,3	4,6	3,6	30,1	3,4	7,5
SHROPSHIRE & STAFFORDSHIRE	85,0	87,1	86,7	2,2	35,8	61,9	57,3	5,6	4,4	26,5	4,1	10,0
WEST MIDLANDS	95,3	93,8	92,6	0,5	32,7	66,6	59,8	10,0	9,3	29,3	7,5	18,9
EASTERN	95,7	103,7	102,3	1,6	26,4	72,0	184,3	3,7	3,9	26,6	3,6	7,6
EAST ANGLIA	98,1	106,6	105,3	2,8	27,3	69,8	226,8	4,1	4,4	26,9	4,0	8,4
BEDFORDSHIRE, HERTFORDSHIRE	102,4	109,7	108,2	0,7	25,3	74,0	158,2	2,9	3,1	22,3	2,8	6,0
ESSEX	85,7	93,9	92,4	1,0	26,1	72,8	152,6	3,9	4,0	29,7	3,8	8,1
LONDON	150,7	152,9	150,1	0,3	16,0	83,6	73,9	7,3	7,8	34,2	7,4	13,3
INNER LONDON	:	243,4	239,5	0,3	13,2	86,4	79,2	:	11,7	33,3	11,1	21,4
OUTER LONDON	:	96,5	94,6	0,3	17,7	82,0	70,6	:	5,5	35,4	5,2	9,2
SOUTH EAST	98,7	112,7	109,4	1,3	22,9	75,7	150,0	3,1	3,2	28,3	2,8	5,9
BERKSHIRE, BUCKS & OXFORDSHIRE	110,0	130,2	126,6	1,4	24,7	73,8	227,0	2,2	2,2	24,3	2,0	3,8
SURREY, EAST & WEST SUSSEX	96,6	110,0	106,9	1,3	18,2	80,5	127,7	2,5	3,0	32,2	2,7	5,1
HAMPSHIRE & ISLE OF WIGHT	98,0	109,6	106,2	1,5	25,2	73,3	141,7	4,2	3,6	30,1	2,9	7,4
KENT	88,4	97,1	94,1	1,1	25,2	73,7	92,9	4,3	4,6	25,4	3,9	8,8
SOUTH WEST	93,2	93,9	93,4	2,4	25,6	72,0	98,6	5,1	4,2	24,6	3,8	8,3
GLOUCESTERSHIRE, WILTSHIRE & NORTH SOMERSET	104,3	107,9	107,4	1,7	26,2	72,1	154,3	4,7	3,5	18,3	3,2	6,6
DORSET & SOMERSET	90,9	87,0	86,7	2,6	24,9	72,6	59,2	4,0	3,5	29,2	3,1	7,1
CORNWALL & ISLES OF SCILLY	72,9	70,3	70,0	5,2	25,1	69,3	58,9	7,9	7,0	27,7	7,0	15,1

Employment rate (% popn 15-64), 1999			Demography					Education			Region
					% population aged: (1998)			Educational attainment of those aged 25-59 (% total), 1999			
Total	Women	Men	Population (000), 1998	Popn density (inh./km²), 1998	Under 15	15-64	65+	Low	Medium	High	
69,0	58,2	79,9	664	52,5	18,9	68,0	13,2	26	67	8	TIROL
68,5	55,8	81,0	346	133,1	19,6	68,4	12,0	29	63	7	VORARLBERG
71,3	**62,9**	**80,2**	**9968**	**108,5**	**17,0**	**67,9**	**15,1**	**78**	**12**	**10**	**PORTUGAL**
71,7	63,6	80,2	9464	106,6	16,8	68,0	15,2	78	12	10	CONTINENTE
71,3	62,2	80,8	3570	167,8	18,7	68,7	12,7	84	9	7	NORTE
82,3	77,1	87,6	1710	72,3	15,9	66,1	18,0	79	11	10	CENTRO (P)
68,0	60,2	76,3	3323	278,5	15,6	69,1	15,3	70	16	14	LISBOA E VALE DO TEJO
65,4	53,5	77,4	513	19,0	14,5	64,1	21,4	81	11	8	ALENTEJO
70,4	60,0	81,0	348	69,8	16,1	65,4	18,5	81	12	8	ALGARVE
60,9	41,0	81,0	244	104,9	23,2	64,7	12,1	86	8	6	AÇORES
66,4	57,2	76,9	260	333,7	20,3	67,5	12,2	84	11	5	MADEIRA
67,8	**64,9**	**70,8**	**5154**	**16,9**	**18,7**	**66,7**	**14,6**	**26**	**42**	**33**	**SUOMI/FINLAND**
67,8	64,9	70,7	5128	16,9	18,7	66,7	14,6	25	42	33	MANNER-SUOMI
59,6	57,5	61,6	694	9,9	18,3	65,3	16,4	27	47	27	ITÄ-SUOMI
65,0	60,9	69,0	705	16,5	19,3	64,6	16,1	28	42	30	VÄLI-SUOMI
62,8	59,3	66,1	558	4,4	21,3	65,9	12,8	24	45	30	POHJOIS-SUOMI
74,7	72,2	77,3	1354	148,6	18,9	69,6	11,5	23	36	41	UUSIMAA (SUURALUE)
68,0	64,7	71,3	1817	34,5	17,6	66,2	16,2	26	44	30	ETELÄ-SUOMI
73,8	65,0	81,0	26	16,7	18,6	65,2	16,2	31	43	26	ÅLAND
71,6	**69,3**	**73,7**	**8851**	**21,5**	**18,8**	**64,1**	**17,2**	**21**	**49**	**30**	**SVERIGE**
78,2	78,2	78,2	1773	273,2	18,7	66,8	14,5	17	45	39	STOCKHOLM
72,4	69,5	75,1	1489	38,7	18,9	63,7	17,4	21	51	28	ÖSTRA MELLANSVERIGE
70,6	66,7	74,5	1270	90,9	18,3	63,6	18,1	23	47	30	SYDSVERIGE
69,8	68,3	71,3	847	13,2	18,2	62,1	19,7	24	52	24	NORRA MELLANSVERIGE
71,0	69,4	72,4	391	5,5	17,7	62,3	19,9	24	54	23	MELLERSTA NORRLAND
65,3	67,5	63,2	520	3,4	18,8	64,2	17,1	17	54	29	ÖVRE NORRLAND
74,0	69,9	77,9	804	24,2	19,6	63,7	16,7	26	52	22	SMÅLAND MED ÖARNA
73,1	69,0	77,1	1758	59,8	19,1	63,5	17,5	22	49	29	VÄSTSVERIGE
71,6	**64,7**	**78,4**	**59237**	**243,0**	**19,3**	**64,9**	**15,7**	**19**	**53**	**28**	**UNITED KINGDOM**
62,3	56,8	67,8	2590	300,7	19,1	64,8	16,1	24	56	21	NORTH EAST
62,4	56,6	68,2	1164	382,2	19,6	64,9	15,4	27	53	21	TEES VALLEY & DURHAM
62,2	56,9	67,4	1426	256,1	18,7	64,8	16,6	21	58	21	NORTHUMBERLAND AND TYNE & WEAR
68,1	61,6	74,5	6891	486,5	19,7	64,6	15,7	21	54	25	NORTH WEST (INC. MERSEYSIDE)
69,9	65,5	74,3	493	72,2	18,0	64,2	17,8	16	62	22	CUMBRIA
72,2	65,5	78,8	984	422,2	19,2	65,5	15,3	16	53	32	CHESHIRE
68,7	62,1	75,0	2577	2004,4	20,4	64,9	14,7	21	54	25	GREATER MANCHESTER
71,7	64,9	78,4	1427	464,8	19,4	64,1	16,5	21	56	23	LANCASHIRE
59,7	53,5	66,4	1409	2151,1	19,7	64,2	16,1	27	51	22	MERSEYSIDE
69,6	62,9	76,2	5043	324,0	19,3	64,8	15,9	21	55	24	YORKSHIRE & THE HUMBER
67,3	59,2	74,7	883	241,4	18,8	64,2	17,0	22	58	20	EAST RIDING & NORTH LINCOLNSHIRE
75,7	66,8	85,1	742	89,3	17,9	64,4	17,7	17	55	28	NORTH YORKSHIRE
66,6	61,9	71,1	1304	836,3	19,1	65,0	15,9	24	56	20	SOUTH YORKSHIRE
70,5	63,6	77,1	2113	1038,9	20,1	65,1	14,8	20	54	26	WEST YORKSHIRE
73,6	66,5	80,6	4169	266,8	19,0	65,0	16,0	21	56	24	EAST MIDLANDS
71,5	64,4	78,3	2002	418,0	18,9	65,3	15,9	22	55	24	DERBYSHIRE & NOTTINGHAMSHIRE
76,6	69,4	83,8	1545	314,1	19,7	65,5	14,8	20	56	24	LEICESTERSHIRE, RUTLAND & NORTHANTS
73,2	66,4	80,1	623	105,2	17,9	63,2	19,0	18	58	24	LINCOLNSHIRE
71,4	64,5	78,2	5333	410,1	19,7	64,6	15,7	24	54	23	WEST MIDLANDS
77,4	69,7	84,8	1213	205,5	18,5	65,0	16,5	19	53	28	HEREFORDSHIRE, WORCESTERSHIRE & WARKS
74,0	67,1	80,8	1492	240,4	18,9	65,5	15,6	20	57	23	SHROPSHIRE & STAFFORDSHIRE
67,1	60,5	73,6	2628	2924,4	20,7	63,9	15,4	28	52	21	WEST MIDLANDS
76,3	68,1	84,3	5377	281,2	19,0	65,0	16,0	17	57	26	EASTERN
75,9	68,1	83,5	2181	173,5	18,5	64,5	17,0	19	55	26	EAST ANGLIA
77,1	68,8	85,3	1590	553,2	20,0	65,8	14,2	12	58	30	BEDFORDSHIRE, HERTFORDSHIRE
76,1	67,5	84,6	1606	436,9	18,7	64,9	16,4	18	60	22	ESSEX
70,3	63,2	77,5	7187	4538,3	19,6	67,5	12,9	18	44	38	LONDON
65,4	58,2	72,8	2761	8613,4	19,6	68,9	11,5	20	34	46	INNER LONDON
73,5	66,4	80,5	4427	3504,3	19,5	66,6	13,8	17	50	33	OUTER LONDON
78,4	70,2	86,4	8004	418,8	18,9	64,9	16,2	13	55	32	SOUTH EAST
80,7	72,2	88,3	2099	365,5	19,7	66,9	13,3	13	50	37	BERKSHIRE, BUCKS & OXFORDSHIRE
79,0	70,7	87,3	2560	468,7	17,9	63,4	18,7	12	54	35	SURREY, EAST & WEST SUSSEX
77,4	70,3	84,6	1771	424,3	18,8	65,2	16,0	14	56	30	HAMPSHIRE & ISLE OF WIGHT
75,4	66,7	84,0	1575	421,6	19,2	64,3	16,5	15	61	24	KENT
76,9	70,0	83,6	4901	204,5	18,1	63,4	18,5	15	57	28	SOUTH WEST
79,7	73,1	86,1	2162	284,4	18,7	65,0	16,3	14	55	31	GLOUCESTERSHIRE, WILTSHIRE & NORTH SOMERSET
77,6	69,7	85,7	1181	193,4	17,4	61,9	20,7	15	59	26	DORSET & SOMERSET
68,6	62,3	74,6	490	137,8	17,7	62,3	20,1	19	61	21	CORNWALL & ISLES OF SCILLY

Region	Economy							Labour market				
	GDP per head (PPS), EUR15=100			Employment by sector (% total), 1999			Eur. patent applications per million inh, av 1997-98-99	Unemployment rate (%)				
	1988	1998	average 1996-97-98	Agriculture	Industry	Services		Total, 1989	Total, 1999	Long term unemployed, 1999 (% total unempl.)	Women, 1999	Youth, 1999
DEVON	82,4	84,0	83,3	2,4	25,2	72,2	47,5	6,2	5,2	28,4	4,7	10,2
WALES	84,3	80,1	80,3	2,7	29,5	67,7	50,8	8,6	6,9	24,5	5,5	14,8
WEST WALES & THE VALLEYS	:	71,1	71,1	2,0	30,3	67,5	35,1	:	7,7	24,0	6,2	16,2
EAST WALES	:	95,7	96,7	3,7	28,3	67,9	78,3	:	5,6	25,4	4,5	12,4
SCOTLAND	91,7	97,6	97,7	2,0	25,3	72,5	65,9	11,1	7,6	31,1	6,0	16,3
NORTH EASTERN SCOTLAND	:	128,3	127,8	3,7	28,4	67,7	138,4	:	4,5	19,2	3,6	8,4
EASTERN SCOTLAND	:	102,6	102,8	2,0	23,9	74,1	84,7	:	6,7	28,2	5,4	14,7
SOUTH WESTERN SCOTLAND	:	90,3	90,4	1,0	26,4	72,6	42,8	:	9,6	33,4	7,3	20,6
HIGHLANDS & ISLANDS	:	76,9	76,8	5,2	23,2	71,4	17,1	:	6,0	37,8	5,0	11,0
NORTHERN IRELAND	74,4	76,6	76,8	5,0	26,5	68,5	17,1	17,7	9,4	41,2	7,7	16,8
BALGARIJA	**:**	**22,3**	**23,3**	**24,4**	**32,6**	**43,0**	**:**	**:**	**17,0**	**53,3**	**16,8**	**36,7**
SOFIA STOLITSA	:	23,1	24,4	2,7	33,5	63,8	:	:	9,9	48,3	9,6	25,2
SEVERNA BALGARIJA	:	22,2	23,1	30,8	29,5	39,7	:	:	20,7	54,7	20,0	41,1
YUZHNA BALGARIJA	:	22,3	23,1	25,4	35,2	39,4	:	:	16,5	53,0	16,2	36,4
KYPROS	**:**	**79,3**	**79,0**	**10,2**	**23,2**	**66,6**	**:**	**:**	**3,1**	**:**	**4,1**	**3,0**
CESKA REPUBLIKA	**:**	**60,3**	**63,0**	**5,3**	**40,5**	**54,1**	**:**	**:**	**8,5**	**36,5**	**10,1**	**16,6**
PRAHA	:	114,7	118,8	0,3	22,9	76,6	:	:	3,2	30,2	3,8	8,4
STREDOCESKY	:	46,9	48,7	5,6	39,9	54,4	:	:	6,7	30,4	8,9	12,0
JIHOZAPAD	:	57,4	60,1	7,8	40,1	52,1	:	:	6,4	31,5	8,0	11,7
SEVEROZAPAD	:	52,9	56,2	4,0	42,8	53,3	:	:	12,6	43,0	15,0	23,0
SEVEROVYCHOD	:	52,7	54,7	6,5	46,5	47,0	:	:	7,3	32,3	8,8	13,5
JIHOVYCHOD	:	53,4	56,1	8,2	40,1	51,7	:	:	8,8	30,1	10,7	17,6
STREDNI MORAVA	:	51,5	53,6	5,9	45,6	48,4	:	:	9,7	36,7	11,5	18,3
OSTRAVSKY	:	56,6	59,8	3,2	47,7	49,0	:	:	13,7	46,3	15,4	26,4
EESTI	**:**	**37,2**	**35,6**	**8,8**	**31,8**	**59,4**	**:**	**:**	**11,7**	**42,6**	**10,2**	**22,1**
MAGYARORSZÁG	**:**	**49,0**	**47,9**	**7,0**	**34,4**	**58,7**	**:**	**:**	**6,9**	**47,9**	**6,2**	**12,3**
KOZEP-MAGYARORSZAG	:	72,4	70,9	1,8	28,2	70,0	:	:	5,2	52,7	4,8	9,3
KOZEP-DUNANTUL	:	48,0	45,7	6,6	42,4	51,1	:	:	6,0	39,5	5,5	9,5
NYUGAT-DUNANTUL	:	54,1	51,3	6,5	43,7	49,9	:	:	4,4	48,0	4,5	7,2
DEL-DUNANTUL	:	37,8	37,5	10,5	33,6	55,9	:	:	8,2	42,5	7,4	14,6
ESZAK-MAGYARORSZAG	:	33,3	32,6	5,5	39,4	55,2	:	:	11,4	53,3	10,7	20,2
ESZAK-ALFOLD	:	33,1	33,1	9,8	32,3	57,9	:	:	10,1	47,6	8,1	17,1
DEL-ALFOLD	:	37,4	37,6	15,9	32,0	52,1	:	:	5,7	42,8	5,2	11,3
LIETUVA	**:**	**31,0**	**30,0**	**21,4**	**26,5**	**52,1**	**:**	**:**	**10,2**	**38,5**	**9,2**	**21,3**
LATVIJA	**:**	**27,7**	**26,7**	**17,2**	**25,8**	**57,0**	**:**	**:**	**13,7**	**53,2**	**13,3**	**23,4**
MALTA	**:**	**:**	**:**	**:**	**:**	**:**	**:**	**:**	**5,3**	**:**	**:**	**6,5**
POLSKA	**:**	**36,1**	**35,1**	**18,1**	**31,4**	**50,5**	**:**	**:**	**12,3**	**41,6**	**13,2**	**29,6**
DOLNOSLASKIE	:	36,0	35,1	9,6	33,6	56,9	:	:	13,8	49,3	14,8	31,1
KUJAWSKO-POMORSKIE	:	33,2	32,4	20,0	29,0	51,1	:	:	15,2	41,3	17,0	37,3
LUBELSKIE	:	26,1	25,5	35,6	20,2	44,3	:	:	12,6	29,4	12,2	35,5
LUBUSKIE	:	32,9	32,0	7,1	39,1	54,1	:	:	15,3	42,2	16,8	27,5
LODZKIE	:	31,9	31,1	23,0	32,0	45,0	:	:	12,7	38,5	12,2	28,5
MALOPOLSKIE	:	32,8	32,0	21,2	30,8	48,0	:	:	9,7	40,3	10,5	29,1
MAZOWIECKIE	:	52,7	51,3	18,8	24,9	56,3	:	:	9,2	46,1	9,5	20,9
OPOLSKIE	:	31,8	31,0	10,1	38,9	50,7	:	:	12,1	25,1	14,5	25,0
PODKARPACKIE	:	27,4	26,7	27,1	31,2	41,9	:	:	16,1	46,1	16,7	47,9
PODLASKIE	:	27,5	26,8	34,0	19,7	46,5	:	:	11,4	55,1	11,8	25,9
POMORSKIE	:	35,6	34,7	9,2	31,6	59,3	:	:	13,0	42,3	15,1	31,2
SLASKIE	:	40,3	39,3	3,6	45,4	51,0	:	:	9,7	37,0	11,3	23,8
SWIETOKRZYSKIE	:	27,8	27,1	35,3	25,7	39,2	:	:	15,6	44,0	15,6	41,6
WARMINSKO-MAZURSKIE	:	27,7	26,9	14,7	30,8	54,5	:	:	21,3	42,7	23,1	48,8
WIELKOPOLSKIE	:	38,1	37,1	18,9	34,5	46,6	:	:	9,8	40,1	11,3	24,9
ZACHODNIOPOMORSKIE	:	35,2	34,3	11,4	31,4	57,2	:	:	14,9	40,7	16,0	28,5
ROMÂNIA	**:**	**28,2**	**30,7**	**44,0**	**27,1**	**28,9**	**:**	**:**	**6,2**	**45,2**	**5,5**	**17,3**
NORD-EST	:	21,6	24,1	57,7	20,5	21,8	:	:	7,1	51,9	5,8	21,2
SUD-EST	:	28,4	31,0	43,9	23,8	32,3	:	:	7,3	40,8	6,8	19,7
SUD	:	25,3	27,8	50,7	27,3	22,0	:	:	6,3	42,8	5,3	17,9
SUD-VEST	:	26,5	28,4	58,6	20,0	21,4	:	:	5,4	34,8	4,4	19,1
VEST	:	32,4	34,1	39,5	27,5	33,0	:	:	6,6	51,4	6,0	14,9
NORD-VEST	:	26,0	28,4	41,6	28,6	29,9	:	:	5,6	38,8	5,1	12,9
CENTRU	:	31,8	34,6	33,2	38,3	28,5	:	:	7,1	54,5	7,0	16,9
BUCURESTI	:	40,3	43,5	6,5	37,5	56,0	:	:	3,4	39,7	3,8	9,2
SLOVENIJA	**:**	**68,8**	**67,7**	**10,8**	**37,7**	**51,2**	**:**	**:**	**7,3**	**41,9**	**7,5**	**18,5**
SLOVENSKÁ REPUBLIKA	**:**	**48,6**	**47,7**	**8,1**	**39,4**	**52,4**	**:**	**:**	**16,4**	**50,7**	**16,4**	**33,8**

Employment rate (% popn 15-64), 1999			Demography					Education			Region
					% population aged: (1998)			Educational attainment of those aged 25-59 (% total), 1999			
Total	Women	Men	Population (000), 1998	Popn density (inh./km²), 1998	Under 15	15-64	65+	Low	Medium	High	
74,2	67,8	80,5	1068	159,4	17,6	62,4	20,0	16	57	27	DEVON
66,1	60,0	72,1	2933	141,2	19,1	63,5	17,4	23	53	25	WALES
63,2	58,0	68,3	1868	142,3	19,0	63,1	18,0	25	52	23	WEST WALES & THE VALLEYS
71,0	63,3	78,9	1066	139,4	19,6	64,2	16,2	20	53	27	EAST WALES
68,5	63,4	73,7	5120	65,5	18,6	66,1	15,3	20	50	30	SCOTLAND
79,4	73,3	85,5	504	68,7	:	:	:	16	50	35	NORTH EASTERN SCOTLAND
71,7	65,8	77,6	1895	105,3	:	:	:	18	51	31	EASTERN SCOTLAND
62,7	58,4	67,1	2352	180,5	:	:	:	24	49	27	SOUTH WESTERN SCOTLAND
74,4	69,9	79,0	370	9,3	:	:	:	16	53	31	HIGHLANDS & ISLANDS
64,0	57,3	70,7	1689	119,2	23,1	63,9	13,0	30	48	22	NORTHERN IRELAND
54,1	**:**	**:**	**8257**	**74,3**	**16,3**	**67,9**	**15,9**	**:**	**:**	**:**	**BALGARIJA**
:	:	:	1187	955,9	:	:	:	:	:	:	SOFIA STOLITSA
:	:	:	3205	66,0	16,3	67,4	16,3	:	:	:	SEVERNA BALGARIJA
:	:	:	3865	63,1	:	:	:	:	:	:	YUZHNA BALGARIJA
69,4	**:**	**:**	**746**	**80,7**	**24,2**	**64,7**	**11,1**	**:**	**:**	**:**	**KYPROS**
65,6	**57,4**	**74,0**	**10295**	**130,5**	**17,4**	**69,0**	**13,6**	**13**	**76**	**11**	**CESKA REPUBLIKA**
73,1	68,3	78,2	1197	2412,4	14,7	69,1	16,3	6	70	24	PRAHA
67,1	57,2	77,1	1107	100,5	17,0	68,7	14,3	13	78	9	STREDOCESKY
67,6	58,9	76,3	1179	66,9	17,4	69,0	13,6	12	78	11	JIHOZAPAD
61,7	53,0	70,5	1131	130,8	18,1	70,1	11,9	18	74	8	SEVEROZAPAD
66,3	58,2	74,6	1491	119,9	17,8	68,6	13,6	13	78	9	SEVEROVYCHOD
65,4	57,1	73,7	1661	118,7	17,8	68,3	13,9	12	76	12	JIHOVYCHOD
64,4	54,9	74,0	1242	136,5	17,8	68,9	13,3	13	78	9	STREDNI MORAVA
59,9	51,7	68,2	1285	231,4	18,5	69,5	12,0	14	77	9	OSTRAVSKY
62,0	**58,0**	**66,3**	**1450**	**33,4**	**19,2**	**66,7**	**14,1**	**12**	**58**	**30**	**EESTI**
55,4	**48,8**	**62,4**	**10114**	**108,7**	**17,5**	**68,1**	**14,4**	**24**	**61**	**15**	**MAGYARORSZÁG**
59,6	53,4	66,6	2862	413,7	15,8	69,0	15,2	17	60	22	KOZEP-MAGYARORSZAG
58,5	51,4	65,7	1112	98,8	18,0	69,2	12,7	23	64	14	KOZEP-DUNANTUL
63,0	55,3	70,8	990	88,5	16,9	68,4	14,7	23	65	13	NYUGAT-DUNANTUL
52,7	46,9	58,9	983	69,1	17,5	68,1	14,4	27	63	10	DEL-DUNANTUL
48,1	41,6	54,9	1280	95,3	18,6	67,0	14,4	28	60	12	ESZAK-MAGYARORSZAG
48,6	42,8	54,4	1532	86,3	19,7	67,0	13,3	30	58	12	ESZAK-ALFOLD
54,7	46,5	63,2	1354	74,2	17,4	67,3	15,3	29	60	11	DEL-ALFOLD
65,0	**61,4**	**68,9**	**3702**	**56,7**	**20,8**	**66,5**	**12,7**	**:**	**:**	**:**	**LIETUVA**
59,5	**54,1**	**65,4**	**2449**	**37,9**	**19,3**	**66,5**	**14,3**	**13**	**68**	**18**	**LATVIJA**
53,8	**:**	**:**	**385**	**1158,4**	**21,3**	**67,0**	**11,8**	**:**	**:**	**:**	**MALTA**
57,5	**51,6**	**63,6**	**38666**	**123,7**	**20,3**	**67,8**	**11,9**	**19**	**70**	**11**	**POLSKA**
56,1	50,6	61,8	2984	149,6	18,8	69,3	11,9	18	70	12	DOLNOSLASKIE
56,2	49,9	62,6	2099	116,8	21,0	68,0	11,1	21	70	9	KUJAWSKO-POMORSKIE
58,9	54,3	63,5	2241	89,2	21,3	65,4	13,3	22	67	11	LUBELSKIE
51,9	43,8	60,5	1021	73,0	21,1	68,5	10,4	17	75	9	LUBUSKIE
59,4	53,6	65,5	2668	146,4	18,3	67,7	14,1	24	66	10	LODZKIE
59,9	54,8	65,0	3211	212,1	21,4	66,7	11,9	16	69	15	MALOPOLSKIE
61,6	56,0	67,3	5066	141,8	19,1	67,3	13,6	18	68	14	MAZOWIECKIE
54,7	45,6	64,6	1091	115,9	19,8	69,2	10,9	21	72	7	OPOLSKIE
56,8	52,6	60,7	2120	118,5	23,0	65,6	11,4	18	71	12	PODKARPACKIE
58,8	52,5	65,3	1224	60,6	21,8	65,1	13,1	26	63	12	PODLASKIE
57,3	50,0	64,7	2182	119,3	21,4	68,3	10,3	17	71	12	POMORSKIE
54,8	47,6	62,2	4890	397,3	18,9	70,2	10,9	14	75	10	SLASKIE
57,6	54,3	60,7	1327	113,7	20,3	66,2	13,5	21	69	11	SWIETOKRZYSKIE
51,7	46,5	57,1	1462	60,4	22,4	67,7	9,9	24	67	9	WARMINSKO-MAZURSKIE
59,5	52,7	66,5	3348	111,8	21,3	67,6	11,1	18	72	11	WIELKOPOLSKIE
53,8	47,9	59,9	1731	75,2	20,3	69,3	10,3	22	69	9	ZACHODNIOPOMORSKIE
65,0	**59,7**	**70,4**	**22503**	**94,4**	**19,2**	**68,0**	**12,7**	**29**	**62**	**9**	**ROMÂNIA**
67,9	64,3	71,5	3825	103,8	21,8	66,1	12,1	33	60	7	NORD-EST
60,8	54,1	67,6	2949	82,5	19,5	68,6	11,9	30	60	10	SUD-EST
67,5	60,9	74,1	3500	101,6	18,7	67,1	14,1	33	60	7	SUD
70,6	66,7	74,6	2424	83,0	19,0	67,0	14,0	28	65	7	SUD-VEST
63,9	59,4	68,6	2038	63,6	18,4	68,9	12,6	30	61	9	VEST
64,0	60,1	68,1	2856	83,6	19,8	68,2	12,1	28	64	9	NORD-VEST
61,8	56,1	67,6	2647	77,6	19,4	68,7	11,9	26	67	7	CENTRU
62,0	55,2	69,5	2264	1243,3	15,6	71,1	13,2	17	63	19	BUCURESTI
62,5	**58,1**	**66,8**	**1983**	**97,9**	**17,0**	**69,7**	**13,2**	**24**	**60**	**16**	**SLOVENIJA**
60,8	**53,8**	**68,0**	**5391**	**109,9**	**21,0**	**67,7**	**11,2**	**:**	**:**	**:**	**SLOVENSKÁ REPUBLIKA**

Region	Economy							Labour market				
	GDP per head (PPS), EUR15=100			Employment by sector (% total), 1999			Eur. patent applications per million inh, av 1997-98-99	Unemployment rate (%)				
	1988	1998	average 1996-97-98	Agriculture	Industry	Services		Total, 1989	Total, 1999	Long term unemployed, 1999 (% total unempl.)	Women, 1999	Youth, 1999
BRATISLAVSKÝ KRAJ	:	99,4	97,5	3,4	25,8	70,8	:	:	5,9	30,5	6,3	17,0
ZÁPADNÉ SLOVENSKO	:	44,3	44,0	9,1	41,9	49,0	:	:	15,1	52,4	15,7	32,1
STREDNÉ SLOVENSKO	:	42,1	41,3	8,7	42,7	48,7	:	:	17,6	47,6	17,6	33,5
VÝCHODNÉ SLOVENSKO	:	39,2	38,0	8,9	40,4	50,7	:	:	21,9	55,1	21,5	41,5

GDP 1988: ESA79 methodology; 1998, ESA95
GDP 1996-97-98: BG: regional estimates
Employment by sector. EL, SK: 1998; Guadeloupe, Martinique, Guyane (F); Réunion (F): 1996; BG (1997), CY: national sources
Unemployment rates: MT: 1998 (youth unemployment); BG: regional estimates for 1999
Long-term unemployment : BG, SK: 1998; IRL: 1997; EU15 and EU12 without IRL
Employment rates: LFS 1999, except SK : 1998.
Educational attainment: LFS 1999, except EL and RO: 1998; IRL: 1997

Employment rate (% popn 15-64), 1999			Demography					Education			Region
					% population aged: (1998)			Educational attainment of those aged 25-59 (% total), 1999			
Total	Women	Men	Population (000), 1998	Popn density (inh./km²), 1998	Under 15	15-64	65+	Low	Medium	High	
71,9	67,2	77,1	618	310,9	18,0	70,2	11,8	:	:	:	BRATISLAVSKÝ KRAJ
61,5	53,7	69,5	1877	123,9	19,8	68,4	11,8	:	:	:	ZÁPADNÉ SLOVENSKO
60,9	54,9	67,0	1354	83,5	21,3	67,3	11,4	:	:	:	STREDNÉ SLOVENSKO
55,0	47,0	63,3	1541	98,2	23,6	66,3	10,2	:	:	:	VÝCHODNÉ SLOVENSKO