

## STRUCTURAL FUNDS AND REGIONAL DISPARITIES IN EUROPE

**The reform of the Structural Funds, aimed at favouring the catch-up of Europe's poorer regions, is a major issue for the Union. At the same time, Europe is preparing for enlargement, which will increase regional disparities, while the Union's net contributor countries are seeking to reduce their financial transfers to Europe. An examination of the trends in national and regional disparities shows that while income differentials between countries have been reduced, such is not the case for regional disparities. The reason for this is to be found in the rising wealth of Europe's richest regions, and it leads to questions concerning the optimal allocation of structural funds. This is essentially a political matter, as neither economic theory nor empirical analysis provide clear answers to these problems. It is an issue touching on the economic and social objectives of Europe's regional policy.**

The aim of the Structural Funds is to enforce regional cohesion in Europe. They strive to reduce the development disparities across regions, to regenerate industrial and rural areas that are in decline, as well as to reduce long term unemployment. In 1999, their resources amounted to 36% of the Community budget, equivalent to 0.45% of the EU-15 GNP. These Funds are mainly allocated to infrastructural projects, the improvement of the productive environment and human resources.

While the Structural Funds were first set up in the 1960s, they have primarily been deployed in new, lesser-developed Member States<sup>1</sup>, since the 1970s. Included in the Single Act in 1985, these Funds<sup>2</sup> were reformed and provided with substantial resources in 1989 (see Box 1). Now, the perspective of the next enlargement of the European Union to five countries in Central Europe<sup>3</sup>—whose per capita GDP, at purchasing power parity, is only a little more than one third of the Community level—again raises questions concerning the effectiveness of Europe's regional policy, given the twofold objective of national and regional convergence.

### Country catch-up and regional disparities

An examination of GDP per capita data over the last fifteen years immediately bears out the catch-up of the Union's four least-developed countries (see Graph 1). Calculated in terms of purchasing power parity (using the

#### Box 1 - THE INSTRUMENTS OF REGIONAL POLICY

The Agenda 2000 draws together Structural Funds into three objectives. The first includes nearly 70% of these resources, and focuses on regions that are less developed (especially in Greece, Portugal, Ireland, most of Spain, southern Italy, Corsica and French Overseas Territories, the new German *Länder*, and Northern Ireland). To be eligible, a region's per capita GDP SPP must be less than 75% of the Community average, over the last three years. The second objective relates to structural mutations in the industrialised and rural zones. The third draws together training and employment policy. In addition to these three objectives, the Cohesion Fund, which was created in 1994, is aimed at financing inter-regional transport infrastructure and environmental protection, in countries whose per capita GDP SPP is less than 90% of the Community average. The resources of this fund are about 10% of the Structural Funds' total. Spain, Greece, Ireland and Portugal benefit from it. During the period from 1994 to 1999, overall Community support amounted to 1.7% of GDP in Spain, 2.8% in Ireland, and 4% in Greece and Portugal.

The European Union's own budget is limited to 1.27% of the Union's total GDP. For 2000 to 2006, the total resources to be allocated to the Structural and Cohesion Funds should run to euro 275 billion, at 1997 prices. This would constitute a 37.5% rise with respect to 1994-1999. Structural Funds going to any Member State may not exceed 4% of its GDP. Under the new programming, at least nine regions will henceforth move above the eligibility threshold, for Objective 1: Lisbon in Portugal, Valencia in Spain, Sardinia and Poulles in Italy, Hainaut in Belgium, Flevoland in the Netherlands, and the Republic of Ireland. The next enlargement of the European Union to Eastern Europe will be accompanied by financial aid, taking euro 45 billion out of the total budget of euro 275 billion.

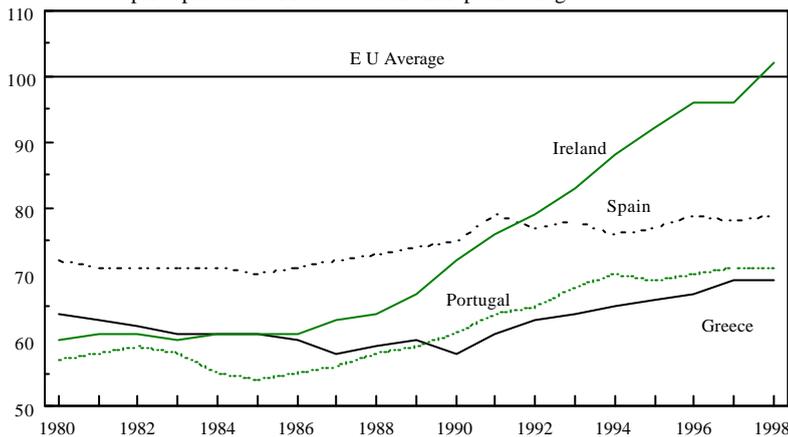
1 See European Union (1999) "Sixième rapport périodique sur la situation et l'évolution socio-économique des régions de l'Union européenne", chapter "Les fonds d'objectif 1".

1. Ireland, Greece, Spain and Portugal. As of 1994, these so-called Cohesion countries have also received Cohesion Funds (see Box 1).

2. The **European Regional Development Fund** (ERDF) finances projects linked to investment in disadvantaged regions (infrastructure, R&D, education and health). The other funds are the **European Social Fund**, the **European Agricultural Guidance and Guarantee Fund** (EAGGF) **Guidance Section**, and the **Financial Instrument for Fisheries Guidance** (FIFG).

3. Hungary, Poland, Estonia, the Czech Republic and Slovenia.

Graph 1 - The Catch-up of Cohesion Countries per capita GDP SPP as a % of the European average



Source : REGIO database, authors' calculations.

Commission's method), the per capita GDP SPP<sup>4</sup> of these countries ranges from 69% (Greece) to 102% (Ireland) of the Community average. Convergence for Spain, Portugal and Ireland began during the 1980s, and has been particularly rapid. In contrast, Greek living standards have only grown more quickly than the European average since 1991 (at 2% points above the average).

The picture of regional GDP trends, however, is more complex. A preliminary observation can be made simply by classing 151 European regions according to per capita GDP SPP in deciles of equal population size (see Box 2). The growth of the three poorest deciles in 1980 appears to be significantly faster than the European average (see Graph 2). These results are similar to those of D. Quah<sup>5</sup>. They showed that, on average, several indicators for the period 180-1989 did not reveal that regions in Cohesion countries are fated to remain poor. Furthermore, a regression analysis of growth and initial income levels was conducted for this article, for the years 1980-1995, and covering the 151 European regions. It clearly demonstrates a trend to convergence. On average, the lower the level of income in 1980, the faster the growth was in the fifteen following years<sup>6</sup>. However, it is also to be noted that growth by Europe's richest decile is greater than the European average. Between these two extremes, relative per capita income falls only slightly, down from 2.7 in 1980 to 2.4 in 1996. Overall, and given the variety of trends observed within each decile, summary indicators of income diversity (such as a weighted Gini coefficient or a variation coefficient) do not demonstrate a significant reduction in disparities across European regions<sup>7</sup>.

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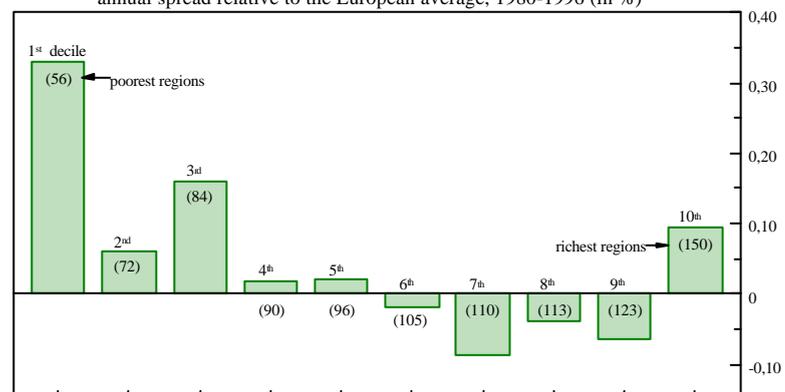
Nor does there seem to be any general tendency for regional disparities to fall, when these are examined within each county (Graph 3). It may also be noted that there is no link between a country's average income per capita and the scale of regional inequalities: Italy has Europe's greatest regional inequalities; Spain's situation is similar to that of France and Belgium. By contrast, Greece has very limited regional inequalities. Moreover, among the Cohesion countries, Spain and Portugal are experiencing diverging trends. In Portugal, regional disparities have been falling since entry into the EU (1986), due to especially strong growth in the poorest

regions. In comparison, Spain's regional inequalities are more on the rise: the poorer regions are not progressing sufficiently to close the gap with the richer regions. Regional disparities are also growing in rich countries like Italy and France. In Italy, the richest regions are growing more strongly than the poorer regions. In France, the richest region (Ile-de-France) is undergoing faster growth than in all regions except the poorest (the Overseas Territories and Corsica).

#### Box 2 - REGIONAL CLASSIFICATION

The indicators presented here relate to 151 regions. Depending on the availability of statistics, the regions are defined by the NUTS I and NUTS II classifications. Ireland, Denmark and Luxembourg are classed as single regions. French Overseas Territories are taken into account, whereas the east-German *Länder*, the Azores and Madera are not.

Graph 2 - Growth in Income Per Capita in the Richest and Poorest Regions: annual spread relative to the European average, 1980-1996 (in %)



Note: Each decile is made up of regions grouped together according to their per capita GDP SPP, in 1980, and accounting for 10% of Europe's population. For each decile, the weighted average of per capita GDP SPP is given in brackets, as a % of the European average in 1980.

Source: Eurostat, REGIO database, authors' calculations.

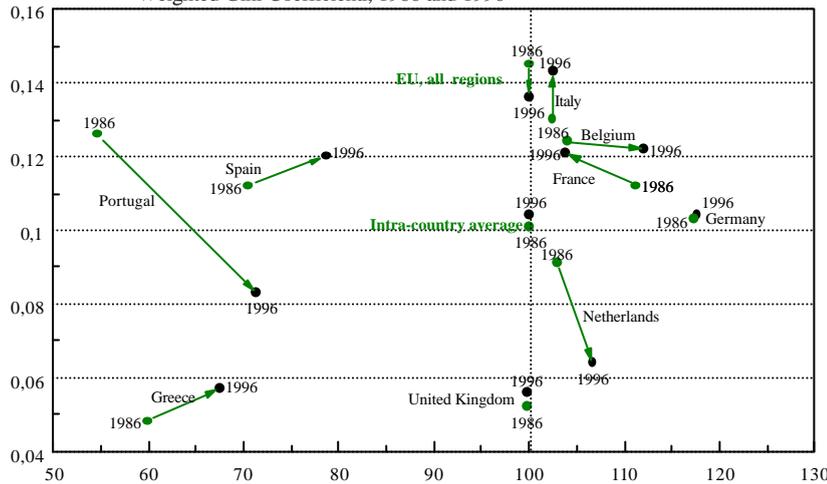
4. GDP calculated in current prices at standard purchasing parities.

5. D. Quah, "Regional Cohesion from Local Isolated Actions: I. Historical Outcome", London School of Economics, study for the Commission, 1996.

6. The coefficients of the equation of absolute convergence were highly significant: the Student's t was respectively 6.1 for the constant and -5.9 for the initial GDP per capita coefficient, although the equation only explains variance to a very limited extent (R<sup>2</sup> = 19%).

7. See also the OECD, "Evolution du revenu et du chômage dans les régions de l'OCDE", Groupe de travail n°6, décembre 1998.

Graph 3 - Regional Inequalities within Countries  
Weighted Gini Coefficient, 1986 and 1996



Note: The weighted Gini coefficient for populations relates the weighted sum of the spreads between regions and the weighted average of per capita GDP SPP. The coefficient runs from 0 to 1, the greater the number the greater inequality.

For each country the formula is: 
$$\frac{1}{2\bar{y}} \sum_{i=1}^N \frac{N_i}{N} \sum_{j=1}^N \frac{N_j}{N} |y_i - y_j|$$

where y is per capita GDP

(y : national average), N: population, i and j: regions.

Source: Eurostat, REGIO database, authors' calculations.

The convergence of average national incomes per capita, throughout the Union, also manifests significant regional diversity. Certain poor regions are being increasingly marginalised, while the richest regions may benefit from agglomeration effects that reinforce the gap with the other regions in each country. This raises two questions for Community regional policy: What impact have the Structural Funds had on the catch-up of the poorer countries? and Is the concentration of resources in the poorest regions justified from an economic point of view? The answers to these questions are delicate, in as far as they run up against the limits of empirical analysis while theoretical reasoning may lead to differing conclusion. According to the neo-classical growth model, countries or regions should converge on a long term level of per capita income, given diminishing returns. This level is positively related to the level of investment and the skills levels of the labour force. If the Structural Funds improve these factors on a permanent basis then they should raise the long term income level, and hence favour the catch-up of lesser developed countries or regions. But, if the Structural Funds only have a transitory impact on physical and human capital, then the long term income level will not be modified: growth is temporarily accelerated, but the long term gap with other countries or regions is not reduced. According to endogenous growth theory, which is based on non-diminishing returns, the improvement in investment and training levels accelerates long term growth. Structural Funds are therefore capable of helping regions with catch-up.

However, the economic geography aspects of such theory stress that the development of transport infrastructure may actually be unfavourable to poor regions: as regions open up, companies can migrate to richer regions to benefit from agglomeration effects. Furthermore, even if Structural Funds benefit poor regions, it may be economically more efficient to deploy them in rich regions where returns on investment are higher.

From an empirical point of view, microeconomic studies<sup>8</sup> are unable to show up the overall effectiveness of regional policy. As for macroeconomic assessments, they are based on counterfactual simulations of the economic situation without Structural Funds. Thus, while short term demand-side effects can be identified easily, it is much more difficult to specify the medium- to

long term supply-side effects. In addition, such estimations are constrained by a lack of regional data, notably with respect to capital stocks and infrastructure; the resources are not always allocated on a regional basis. Yet, despite all these limitations, some studies still provide interesting conclusions, which are summarised below.

## The Effectiveness of Structural Funds

A preliminary indication of the impact of Structural Funds is provided by simple convergence equations. To be sure, the regression of growth rates against initial GDP per capita levels has only a limited explanatory value, especially when it is carried out for a short period of time. Nevertheless, when the Structural Funds are introduced into the convergence equation presented above, they appear to have had a positive impact: they account for half the convergence observed between 1989 and 1993<sup>9</sup>.

For its assessment report on Structural Funds, the European Commission used various macro-econometric models<sup>10</sup>. According to these results, European aid between 1994 and 1999 increased annual growth in Spain by 0.8 percentage points of GDP, by 0.7 points in Greece, by 0.6 points in Ireland, by 0.5 points in the east-German *Länder*, and by 0.3 points in southern Italy.

A. de la Fuente and X. Vives<sup>11</sup> demonstrate that in Spain different human capital and infrastructural endowments

8. See in particular, A. Venables and M. Gasiorek, "Evaluating Regional Infrastructure: a Computable Equilibrium Approach", in *Study of the Socio-Economic Impact of Projects Financed by the Cohesion Fund: Final Report*, London School of Economics, 17 December 1996.

9. On this point, see H. Capron, "Evaluation de l'impact des politiques structurelles sur la cohésion économique et sociale de l'Union : étude de convergence", Université Libre de Bruxelles, *Working Paper*, November 1995.

10. European Commission, *Bilan à mi-parcours 1994-1999* January 1999.

11. A. de la Fuente and X. Vives, "Infrastructure and Education as Instruments of Regional Policy: Evidence from Spain", *Economic Policy*, No 20, April 1995.

account for one third of regional inequalities. Reducing such differences should thus make it possible to correct regional disparities in productivity and income. Hence, Structural Funds invested in infrastructure have contributed one third of the fall in the productivity gap across Spanish regions, observed during the 1980s. Both authors, however, stress that such redistribution efforts carry efficiency costs. Thus, if all Spanish public investment had been allocated to regions according to the redistributive principles of the Structural Funds, then the reduction in inequalities would have been twice as large, but GDP would have been lower by 1.2%

The efficiency-equity dilemma is also borne out in the work by C. Pissarides and E. Wasmer<sup>12</sup>. They demonstrate that the effect of transport infrastructure on private investment is positive in the four Cohesion countries. Nevertheless, the results obtained for Portugal indicate that this effect is more important when investment is carried out in the relatively richer regions rather than the poorer ones. Similarly, P. Martin<sup>13</sup> has pointed out that while public infrastructural spending has reinforced convergence among countries, this has been done by accelerating growth in the more favoured regions of the poorer countries.

Though all studies agree that European regional policy contributes significantly to the catch-up of poorer countries, some studies draw attention to the fact that European support for these regions may not actually bring about the desired goal of regional cohesion. Furthermore, such support may not be effective, in certain circumstances. It is therefore important that the European Union identifies clearly the economic and social objectives of its regional policy. Should it favour

economic catch-up among members, while leaving to national governments the task of reducing regional disparities in per capita income levels? The priorities written into the programme for 2000-2006, which stress the development of "highly peripheral" regions, suggest that such a stance has not been adopted.

**Philippine Cour  
Laurence Nayman**

**Vient de paraître**

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13. See P. Martin, "Convergence et politiques régionales en Europe", **La Lettre du CEPII**, No 159, July 1997.

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