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EMU and the Regions

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I. Introduction

At the time of writing, European integration has suffered a surprise setback: the rejection of Maastricht in a Danish referendum has unleashed a powerful wave of second thoughts across the European Community (EC). These second thoughts are, however, mostly political. Danish voters, British MPs and Gaullists fear economic and monetary union (EMU) will be a step toward a political union for which they are not ready. Few question the desirability of economic and monetary union itself.

Yet the case for EMU, even on narrow economic grounds, is not as robust as widely imagined. There will be efficiency gains from completing the internal market and eliminating the transaction costs associated with separate national currencies. However, two kinds of cost must be set against these gains:

- there may be problems of interregional *equity* — Not all regions of Europe will gain equally, or at all, from the increasingly integrated market. Progress toward "cohesion" (Eurospeak for narrowing of interregional differences in living standards), while rapid before the mid-1970s, has since ground to a halt or even reversed; and
- there will be problems of *adjustment* — Within a European monetary union, regions will have difficulty coping with the secular shifts in advantage associated with integration

and the random shocks that will hit increasingly specialized local economies.

The great concern is that European institutions may be unprepared for an integrated continental economy. In the United States much of the downside of integration is avoided through extraordinarily high labor mobility, which is in turn one aspect of a highly flexible (if often brutal) labor market. The ability to cope with regional shocks is further enhanced by a powerful system of fiscal federalism. Meanwhile, European labor markets remain characterized by "Eurosclerosis," where labor mobility has virtually ceased since the mid-1970s; and the Community budget provides almost no insulation from regional shocks.

We are not suggesting the European integration process be halted or even slowed pending major institutional reform. Rather, the purpose of this paper is to warn about some of the economic land mines the European integration process may trigger over the rest of this decade.

The rest of this paper is divided into five sections. The next section, Section II, reviews conceptual issues about "cohesion": reasons why the European integration process may fail to narrow, and might in fact widen, income differentials among regions. Then Section III summarizes the generally disappointing European experience with disparities in regional performance. Section IV describes current European regional policies. Section V turns to the somewhat different, but related, issue of the economics of monetary union. The final section offers some conclusions.

II. "Cohesion": Conceptual Issues

A major EC objective is to make the nations and regions of the Community more similar in two senses:

- the poorer regions should catch up in income to the wealthier areas; and
- the inflation and macroeconomic performance of the most troubled economies should improve toward the standard of the best performers — to allow for monetary union among other things.

Economists often refer to both types of movement toward similarity as convergence, but in this paper we will follow the European Commission jargon where "convergence" refers to the macroeconomic and monetary side (the province of Maastricht), while "cohesion" refers to the longer-term issue.

Will market integration promote cohesion? At first sight, it seems it must. Perfect integration will bring perfect cohesion. In an imperfect world, however, half a loaf may not be much better than none. Moves toward integration will offer few benefits to lagging or declining regions and may even leave them worse off.

Cohesion through integration: the optimistic case

In the international trade model that dominated most aca-

demic work until 1980, one would have expected the European markets integration to narrow income differentials. The reason is that the standard "Heckscher-Ohlin" model attributes international differences in income, and international specialization, to differences in resource endowments. For example, the difference in per capita income between Germany and Greece would have been attributed to Germany's higher capital-labor and skilled-unskilled labor ratios.

In this model, one would expect both trade in goods and services and the mobility of factors of production to narrow the income gap. The role of factor mobility is obvious: capital and skilled workers from rich northern regions would move south, while unskilled labor would move north, tending to equalize the relative factor endowments, and thus per capita income. Trade in goods and services would work in the same direction: capital-abundant regions would export capital-intensive products and import labor-intensive ones, thus indirectly exporting the services of their capital and importing the services of lagging-region labor.

In this simple model of international trade and factor mobility, European market integration would favor interregional equity as well as efficiency. Unfortunately, this model is inadequate. It depends crucially on two assumptions:

- comparable efficiency in production among European regions; and
- the absence of significant economies of scale.

Neither assumption is true and, regrettably, relaxing them to allow for either efficiency differences, scale economies, or both introduces the possibility that closer integration will reduce rather than enhance cohesion.

Differences in efficiency

Suppose production in Germany is more efficient than in Greece. German per capita income is higher not just because German workers have more education and work with more capital, but because even a given bundle of productive resources yields more in Germany.

Such international differences in "total factor productivity" are pervasive in empirical studies of international income differences. Why they exist is something of a mystery — indeed arguably it is *the* key economic mystery. To some extent government policies may make the difference; localized knowledge may also matter; but it is difficult to avoid invoking "soft" factors such as social norms as well. (Robert Solow points out that discussing international differences in productivity ends up in a "blaze of amateur sociology.") In any case, suppose we take them for granted. Will market integration, in this case, increase or reduce cohesion?

The answer depends on the form that integration takes:

- Integration of markets for goods and services — One may expect mutual gains from international trade, even if one trading partner is more efficient than another. It is no longer obvious, however, that the effect of international trade will be to raise disproportionately the earnings of labor in the poorer nation. Trade patterns may be dominated by differences in productivity rather than differences in factor intensity.

  For example, in the early postwar period, when the United States had much higher per capita income than other industrial nations, studies of US trade patterns consistently showed US exports were slightly *less* capital-intensive than US imports — the "Leontief paradox." Presumably, US comparative advantage was determined primarily by technological advantage rather than factor intensity, and US technological leadership was more pronounced in sectors with moderate capital intensity than those with the highest capital-labor ratios. The Leontief paradox posed no real threat to the view that international trade was a good thing, but it did qualify the judgement of its effects: it implied that while US trade may have benefitted the United States and the rest of the world, it had little effect in promoting a convergence of factor prices. Specifically, there was no reason to suppose that international trade promoted "cohesion" in the sense of narrowing the gap between real wages in the United States and elsewhere.

- Integration of capital markets — In the hypothetical world in which all countries share the same technology, trade in goods is a substitute for the movement of capital. If some countries are more efficient, however, this is no longer the case. In particular, capital may well flow from poorer to richer regions, not the other way around; the lower wage rate in the poorer region may be more than offset by the lower productivity there.

  So increased capital mobility among regions could actually widen rather than narrow income differentials, as capital flows *out* of low-wage, low-efficiency regions. This is only a possibility — even with differences in regional productivity, the more optimistic scenario is also possible. But, in principle, capital mobility can work against cohesion, rather than in its favor.
- Integration of labor markets — Sufficiently high labor mobility would ensure near equality of per capita income: some regions might be nearly depopulated, but the few people who stayed would have incomes close to those found in more populous areas. This is a reasonable description of the United States, where declining regions do shed population en masse — to such an extent that there is serious discussion of returning a central area somewhat larger than California to the buffalo.

However, as we describe in Section III, labor mobility is limited in Europe. In that circumstance, increased labor movement may not have an equalizing effect. The reason is that highly skilled, educated labor may be more mobile than unskilled. This high-skill labor thus behaves like capital: it may flow toward efficient regions, constituting a "brain drain" that impoverishes the regions left behind.

So, the point of these scenarios is that they show how differences in underlying efficiency, or total factor productivity, among regions may undermine the comfortable assumption that European market integration will necessarily foster cohesion as well as growth.

The picture is further clouded by the role of economies of scale to which we now turn.

Economies of scale and external economies

The standard model of international trade assumes constant returns to scale and an absence of external economies. However, both are significant in the context of the European economy. At the firm level, Neven (1990) finds that the distribution of firm size across countries varies greatly and that the more industrialized European countries have firms larger and closer to minimum efficient scale than those which are less developed. For evidence of the importance of spatially limited external economies, look at a satellite photo of Europe at night, and see the concentration of economic activity in the so-called "hot banana" stretching from London to Milan. (Cuadrado and de la Dehesa, 1992).

Economies of scale and external economies tend to promote agglomeration. Firms tend to cluster, to be close to the markets and input supplies they provide each other, and to take advantage of the pools of skilled labor and specialized knowledge available at geographic centers of economic activity.

Several authors point out European integration may well increase rather than reduce such agglomerative tendencies.[1] Their point is similar to the one we have already made about exogenous efficiency differences: advantages of proximity to markets and of agglomeration at the center can outweigh the diseconomies of higher factor costs and congestion.

The story is complicated somewhat by labor immobility, which will not change in the near future. Reducing the barriers to trade within the EC may make it more attractive to produce in low-wage locations. However, matters are not that simple, because reduced barriers to trade also make it more profitable to concentrate production in a few locations to achieve economies of scale — and as long as there remain significant costs of transportation and transactions across space, these concentrations may be chosen for market access rather than low cost. Moreover, in Europe, poorer regions, in general, are relatively distant from larger markets. As Krugman and Venables (1990) point out, trade liberalization therefore has an ambiguous effect on production and wages in these "peripheral" regions.

One might expect modern communication and transportation technologies would abolish the role of distance and geography. In fact, shifts in economic forces seem to be moving in the opposite direction. With the spread of "just in time" manufacturing systems and the need in business services for direct contact with clients, there are good reasons for believing the pull of core regions will be enhanced by integration (Begg, 1989).

Aside from broad core-periphery issues, European market integration may also help form a geographic concentration of particular industries. The importance of industrial "clusters" has been emphasized by Porter (1990); he emphasizes the advantages of information flows, visibility, reputation, efficiency, specialization, availability of specialized work force and improvement and innovation. Krugman (1991) shows European industries are currently much less concentrated geographically than their US counterparts; one can thus expect clustering to take place as the market integrates.

As European industries cluster, some regions will be left behind. Such regions may not be low-wage, but will become pockets of high unemployment. In the EC Commission's jargon, they will join the second category of problem region: "declining" as opposed to "lagging".

Summary

This brief survey of conceptual issues makes one main point: European market integration need not, in principle, help the cohesion process. Except in an idealized world in which there are neither efficiency differences between regions nor significant economies of scale and external economies, it is possible that increased integration will widen rather than narrow regional disparities — and Europe does not fit this ideal at all.

These concerns are not news to all Europeans. Indeed, the EC's 1985 White Paper on the "single market" stated: "The Commission is however conscious that there may be risks

that, by increasing the possibility for human material and financial services to move without obstacle to areas of greater economic advantage, existing discrepancies between regions could be exacerbated and, therefore, the objective of convergence [sic] jeopardized."

What fails in theory may work in practice; although integration can widen income disparities, in reality it may not. We must therefore turn to the empirical evidence, and look at the generally disappointing progress of Europe's lagging regions.

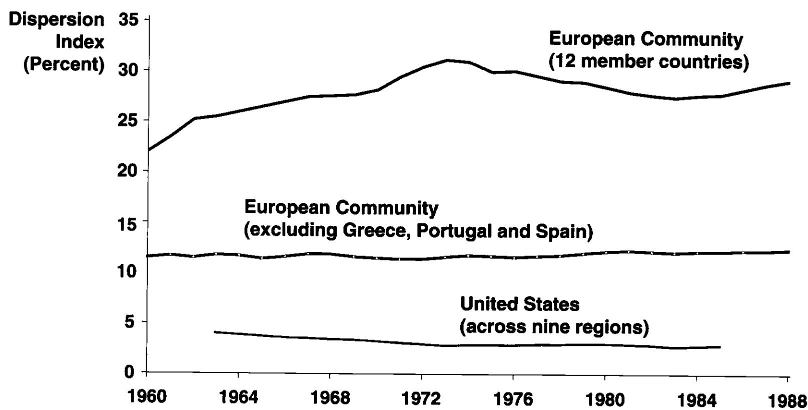
III. Regional Disparities in the EC

The EC is characterized by large differences in income between regions, at least when compared to the United States. Chart 1 (overleaf) measures dispersion of real output per capita. The deviation of output among European nations is seven times that among comparably-sized US regions. Even if one excludes Greece, Portugal and Spain the European deviation is far higher than that in the United States.

There has been little tendency toward income equality. Chart 2 (overleaf) shows the trend in regional disparities in the EC, based on GDP per capita adjusted by purchasing power parity standards (PPS) and in unadjusted European Currency Units (ECUs). Inequality declined during the 1960s and early 1970s, but there has been little movement at least in real terms since then.

The same trend is evident in the performance of the four least developed EC countries. Table 1 (see p. 14) shows that only Ireland and Spain have caught up much since 1980. But even so they have barely regained their 1975 levels of relative income. Portugal has recovered from a severe slide in the early 1980s; but Greece has been steadily slipping ever since it joined the EC in 1978. Since joining the EC, the net gain in relative GDP per capita has been 7 points for Spain, 6 points for Portugal and 1 point for Ireland. Greece lost 6 points.

Chart 1
Dispersion of Real Output Per Capita



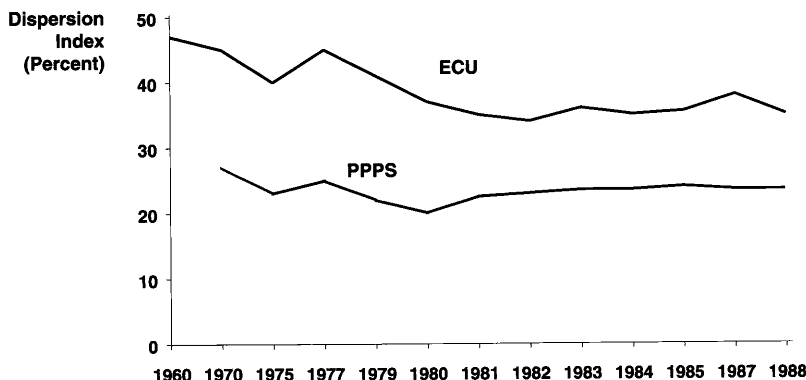
Note: The Dispersion Index for an area such as the European Community is a measure of the variation of a given variable across regions within that area. First, a weighted standard deviation is calculated, weighting the variances for individual regions by their share of the total population of the area. The Index is that statistic expressed as a percentage of the average for the entire area.

Source: Barry Eichengreen (1990 b).

Chart 3 (see p. 15) shows the evolution of income per capita disparities in the EC between 1980 and 1990 using several additional measures. While after 1986 the distribution of income per capita in PPS terms improved slightly among regions and a little more among member countries, it worsened after 1987 in terms of GDP per person employed. In other words, productivity was not converging. The income convergence was therefore a matter of increases in national and EC transfers, combined with an increase in employment: all good things, but not the start of a fundamental trend.

Table 2 (see p. 16) demonstrates that movements in the relative income of the of less developed member countries is the result of

Chart 2
Regional Imbalances in the EC



Note: Refer to Chart 1 for general description of the Dispersion Index. In this case, there are two variables: real output per capita measured in ECUs and also measured using Purchasing Power Parity Standards (PPPS) which take into account the variation in price structure across regions to produce a measure of the dispersion of real as opposed to nominal income.

Source: Cuadrado and de la Dehesa (1992).

GDP growth and not changes in population growth rates. In fact, population growth rates are falling more rapidly in the southern regions than in the northern ones.

Table 3 (see p. 17) shows that the extremes of regional wealth and poverty have increased at the sub-national level. The increase in dispersion is small but still perceptible.

Turning to unemployment, Chart 4 (see p. 18) shows the EC average unemployment rate dropped since 1986 by almost 4 points, but the dispersion of regional unemployment levels, which was high, did not decrease. In 1990, the average unemployment rate of the 10 regions with higher unemployment was 22% while the average of the 10 regions with lower unemployment only 2.5% — almost 10 times lower. Part of these differences may be due to

Table 1
GDP Per Capita
(as percent of the EC average)

	Greece	Ireland	Portugal	Spain
1960	40	64	40	60
1970	54	62	53	75
1980	62	65	60	73
1985	59	62	55	72
1986	58	60	56	72
1987	57	62	58	74
1988	57	61	58	75
1989	57	62	60	77
1990	56	66	62	78
1991	56	66	62	79
Maximum	62	66	62	82
Year	1978	1975	1991	1975
Net gain (or loss) since joining	(6)	1	6	7

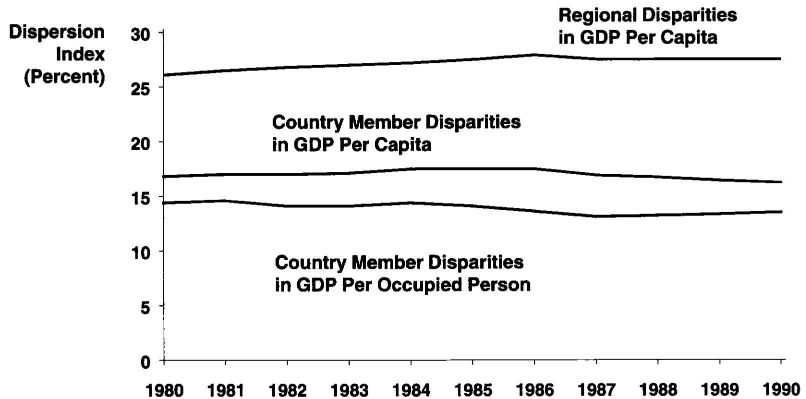
Source: The GDP per capita values (adjusted for purchasing power standards) used in calculating these percentages are taken from the blue pages of the *European Economy* No. 46. The figures for 1990 and 1991 are Commission forecasts.

different fertility rates in the long run, but they mainly reflect a lack of labor mobility in the EC (see Table 4, on p. 19).

Why are regional disparities in the EC so large, especially compared to the United States?

- The EC is still a fragmented area, unlike the United States. Although legal barriers to trade and factor mobility have largely been removed, 12 sovereign political entities have different levels of development, large cultural and custom differences and nine different languages.
- Deep seated antipathy toward labor mobility blocks such movement not only between but also within European nations.

Chart 3
Evolution of Regional Disparities in the EC
(1980-1990)



Note: Refer to Chart 1 for a general description of the Dispersion Index. In this case, the variables measured are GDP per capita and GDP per occupied person.
Source: The Regions in the 1990s, EC Commission, 1991.

Matters were not always thus. Labor mobility helped reduce income disparities during the 1950s and 1960s — the era of "Bread and Chocolate" was a period in which southern European workers increased their earnings by heading north but also helped, through their remittances, to finance domestic development. Such migration has nearly halted. Chart 5 (see p. 20) shows that since 1980 a significant number of people have left Ireland. Greece, Portugal and Spain, however, are net recipients of labor reflecting the return of previous emigrants from other EC areas. In 1990 only 4.7% of the total resident population in member countries was foreign and of this percentage only one-third originated in other EC countries. That is, out of 12 million immigrants in the EC, eight million are of non-EC origin (see Table 5, on p. 21).

There are various reasons for such a lack of mobility. One is that the convergence in wage rates in the 1960s and 1970s was enough

Table 2
Evolution of GDP and GDP Per Capita in the Member Countries During the 1980s

	Annual Growth of GDP							Average Annual Population Growth Rate	GDP Per Capita	
Country	1982-1985	1986-1990	1986	1987	1988	1989	1990	1986-1990	1986 [a]	1990 [a]
Greece	1.6	1.8	0.8	-0.1	4.0	2.9	1.6	0.3	56	53
Ireland	1.5	3.7	-0.3	4.9	3.7	5.7	4.6	0.1	63	65
Portugal	0.9	4.5	4.1	5.3	3.9	5.4	4.0	0.3	53	56
Spain	1.8	4.5	3.3	5.5	5.0	4.9	3.8	0.4	72	77
Total (EC 4)	1.9	4.2	2.9	4.8	4.7	4.8	3.6	0.3	66	69
Total (EC 8) [b]	1.8	3.0	2.6	2.6	3.7	3.2	2.9	0.3	108	107
EC12	1.8	3.1	2.6	2.9	3.8	3.4	3.0	0.3	100	100

Notes: (a) The last two columns show GDP per capita expressed as a percentage of the EC average. (b) Total (EC 8) refers to the eight member countries *not* tabulated above.

for sociological, cultural and psychological factors to compensate for the remaining wage differentials. It is clear that cultural factors are important, for migrant flows tend to be concentrated between countries with the same language or culture — Ireland and the United Kingdom, Belgium and France, the Netherlands and Denmark and Germany. This cannot be the whole explanation however, because we know there is very limited migration even *within* European nations: for example, from the north to the south of England. In the 1980s, some migrant flows within European nations have declined — by one half, in Italy — and reversed — in Spain, where Catalonia and the Basque Country are now exporting labor to the south instead of importing it as before.

An equally important reason is the continuing rigidity of European labor markets: firms are reluctant to hire new workers

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