CONVERGENCE OR DIVERGENCE?

THE EMPIRICAL EVIDENCE

BY

SHARI ORRIS GARMISE

Paper presented to the second annual conference of the European Community, 22-24 May 1991 at George Mason University, Fairfax, Virginia.

The Single European Act has affirmed the reduction of regional economic disparities as a necessary step to achieve the social and political cohesion of the Community as a whole. To better understand the problem of regional disparities, the Commission has been actively studying the situation for the past decade in the publication 'The periodic reports of the social and economic situations of the regions of the Community'. The third report (1987) best summarizes the EC's view of the overall situation:

> Real convergence is one of the Community's fundamental objectives and is essential for its cohesion. As a result of the first oil shock and the major worldwide disequilibria of the last fifteen years, the process of real convergence was interrupted and partly reversed. It needs to be set in motion again. To achieve convergence in living standards, the countries and regions lagging behind need to record above-average rates of income generation, i.e. of employment and productivity....But real convergence is a process than can produce results that will become discernible only gradually. For this reason, regional policy must take a long view, short-term successes being no measure of effectiveness. (1987: 52-53)

In their analysis, the periodic reports have compared the differences in regional output between the strongest and weakest regions to determine if the regions are converging or diverging. Although their goal has not been to provide solutions but to point out the elements important for designing more in depth research, I would argue that this focus does not give them the appropriate information to accomplish this objective. My intent is to examine the regions with the same indicators but with a focus that will provide a framework better suited for informing future study concerning the causes of regional disparity. My goal is to identify those regions that have experienced a steady trend of improvement or decline relative to the other European regions. A comparison between strong and weak, especially if the regions in these groups remain fairly constant over time, lends itself only to a tautological explanation of the differences between the two groups. Conversely, recognizing the regions experiencing real change in living standards and relative ranks, allow us to ask what are they doing that supports these changes. I will hypothesize that these movements can only be explained by examining the social and political situations in the regions.

Before moving on to the heart of this paper, I would like to discuss this hypothesis in more detail because it, in effect, assumes that the region is an important socioeconomic and political body in its own right.[1] I submit that the social and political configurations of the region are as important (if not more important) as the economic factors for understanding and explaining regional disparities. How each region individually manages the constraints and opportunities offered by the common international market is a political question. It would be absurd to assume that the same shocks which challenged national institutions did not also challenge subnational institutions, especially as the capacity of the nation-state to meet demand was being downloaded onto subnational levels of government during the past decades. Moreover, industrial sectors are often regionally based, leaving the region with the most direct responsibility for adjustment and adaptation. Examining the sociopolitical situation is also necessary to help explain the mysteries that economic indicators flush out. How can find regions with comparable

---

[1] I am making no assumption here that the EC regional political institutions possess equivalent political capacity.

incomes and rates of growth but very different unemployment rates? How can regional income decline but standard of living increase? Economists do not seem to offer compelling answers to these critical questions. I would contend that economic disparity is highly correlated with disparities in the political capabilities of subnational governments. I think it no trivial coincidence that the strongest economic regions in the Community, the German regions, have the most extensive political powers while the weakest regions, found in Greece, Portugal, and Ireland, have regional bodies in name only, if they exist at all. In other words there is some suggestion here that, at the regional level, economic disparity parallels disparity in political power. This point will be discussed in more detail in the conclusion.

The rest of the paper will be structured as follows: The first half will briefly examine the conclusions of the periodic reports put out by the European Commission. The second part will look at selected indicators of economic growth in order to pinpoint the regions that have experienced steady improvement or decline in rank, relative to the other regions. The majority of the regions, especially the strongest and weakest, have remained more or less stable over time. Having identified which regions are converging towards the strongest or diverging from them, we can then study those regions to understand their successes and failures to gain knowledge useful for informing community and member-state regional policy formulation.

Part 1: The Periodic Reports

The Community's purpose in undertaking the periodic reports,[2] was to assess the "regions' capabilities to adapt their economies to changing circumstances and to develop their indigenous resources to the fullest extent possible."(1st report, 1981:2) My intention here is to put together the conclusions of the various reports to give a complete overview of the regional economic picture over the past several decades.

First, we should briefly examine the changes brought about by the second and third enlargements that led from EC(9) to the EC(12). The enlargement to the EC (12) led to a clear increase in disparities so that many EC(9) regions improved their relative positions slightly as a result. In the new EC 12, average regional income has declined, the ratio of the ten strongest to the ten weakest regions has been inflated, there is a larger number of sparsely populated mountainous zones, mediterranean zones with weak agricultural structures, and areas comprised of traditional industries or industry which require restructuring and modernizing, and an appreciable increase in the number of regions coping with strong demographic pressures and high rates of unemployment and underemployment. In other words, the periphery of Europe has expanded considerably. In 1981, Spain, Greece, and Portugal generated GDP's that were, respectively, 59%, 45%, and 30% of the EC average. Compare that to Italy, 73% and Ireland, 58% which had previously contained the weakest regions in the EC(9).

---

[2] The first report came out in 1981, the fourth in 1991.

The fourth report begins with an overview of trends in GDP per head which measures prosperity and per person employed which measures productivity from the sixties through the mid eighties. Two phases were noted. First was a convergence, indicated by a decline in the gap between weakest and strongest, both between member states and regions, which ended in the mid-seventies during the recession. This led to the second phase where the low growth resulting from the recession had returned the levels of inter-regional disparities to the those existing at the late sixties, early seventies. In the mid-eighties, the trend toward increasing divergence had stabilized somewhat. Nevertheless, the differences in GDP in the ten strongest in 1988 was three times that of the ten weakest(mostly Portugal and Greece). The average position of the bottom 25 improved slightly with respect to the EC average. No improvement, however, occurred in the weakest ten since the mid-80s. At the member-state level, Ireland, Spain and Portugal are experiencing slight convergence toward the EC average, especially in 1986-87 while Greece has been clearly worsening with respect to the European mean. In sum, it indicates some convergence at the national level, but divergence at the regional level.

Looking at rates of growth of GDP per head, more positive trends are readily apparent. Growth above the European average is viewed by the EC reports as an essential precondition for convergence. The second periodic report examined growth at the member-state level (EC 10) between 1958 and 1973 and then again between 1974 and 1983. In both periods, Italy, Greece and France, were ranked among the top with the UK at the bottom. Ireland moved from low in the first period to high in the second. At the regional level however, all countries had more or less equal shares of regions above and below the Community average. The mix, according to the report, is not explainable in any type of theoretical terms such as the rich getting richer and the poor getting poorer. The fourth report noted that, at the member-state level, Spain, Portugal and Ireland were experiencing rates of growth above the average in 86-87 although Greece's position was worsening in relation to the rest of the community. More progress seems to be happening at the nation-state level than at the regional level. While this may appear encouraging at first glance, convergence at the national level cannot be interpreted as convergence at the regional level. For example, if the weaker regions within one country remain stable but the stronger areas within the nation-state prosper, convergence will be the result at the national level because the strong regions will bring the country mean up but divergence would be the outcome at the regional level because the regional mean would also be increased.

The earlier EC reports attributed regional and national disparities, measured by GDP per capita, to differences in four sets of factors: 1)labor productivity, 2)labor force participation, 3)the population's age structure, and 4) employment and unemployment rates. Disparities between member-states and regions have been due mostly to differences in productivity.

Having discussed GDP and productivity, we can look at changes in employment activity. The first periodic report noted that in the sixties, employment growth was particularly important for explaining regional disparities. Significantly, increasing employment was responsible for narrowing the gaps in regional output during this decade. The seventies, however, experienced a strong rise in unemployment for three reasons: 1) employment remained stagnant during this period, 2) there was a steady increase in the number of young people entering the work force, and 3) the notable rise in female participation rates.

This gap between regions concerning unemployment continued to widen in the first half of the eighties. The second half of the 80s was much more positive although the distances between highest, 22%, and lowest, 2.5%, was still quite large. Since 1984, employment in the Community as a whole has increased around 1.25% a year leading to the creation of about 9.5 million jobs, 6 million more jobs than were lost due to the recession at the beginning of the decade. Only in Ireland, did job creation not exceed job loss. However, despite this promising trend, there is no real evidence that the employment increases in the Community is helping the large unemployment problems in the poorer regions especially since these areas tend to be where we find higher birth rates resulting in a faster growing labor force.

High unemployment rates in the weaker regions are related to demographic trends, which is the third factor explored by the community reports in their attempt to understand regional disparities. The first report noted 3 important features. First, the EC, as a whole, experienced a clear slow down in population growth at the end of the seventies. Second, migration flows have changed. Emigration has declined and reversals were readily apparent. This has lead to a "damming up" of the population in the weaker and highly agricultural regions. While this may actually strengthen their demographic structure in the long run, the local economies cannot necessarily sustain the extra population in the short term. Last, there are obvious changes in the patterns of urbanization. Populations are moving away from large urban areas (except Naples and Athens) toward smaller, more peripheral urban centers. This trend is quite favorable for encouraging a geographical balance because it blurs the distinctions between urban center and periphery. It also provides a base for economies of scale in the industrial and service sectors in these smaller areas.

The fourth report notes that the EC population will remain stable until 2000 and then will decline at about 1.25 per year.[3] Within countries the trend is more varied. Germany, Luxembourg, Belgium and Denmark all have declining populations. Greece, Italy, and Portugal have populations which will remain stable until 2000, after which it is expected to decline. The populations of France, Spain, the UK and the Netherlands will grow until about 2000 and then level off. Only Ireland is expected to grow until 2015. Looking at Spain, Portugal and Ireland, the increase in their labor force will make it hard to reduce unemployment rates where the rates are already high. Migration is not considered to be a regional problem because, statistically, Community nationals are not choosing to move to other countries in great numbers. However, immigration from

---

[3] The addition of East Germany is excluded in this assessment.

third countries increased in the 80's and may be a potential difficulty in the future.

So far we have been discussing the indicators of regional disparities. Now we must briefly review the causes of these disparities according to the fourth periodic report.[4] Competitive factors are employed as the predominate explanatory variables. These include differences in: the quality of infrastructure, availability of qualified personnel and/or training facilities to produce requisite skills and qualifications, availability of local credit, effects of local taxation conditions, and concentration of R&D, providing firms with the capacity to innovate. A community survey indicated that the cost of credit or interest rates was a major problem in weaker areas. In addition to that complex application procedures, lack of management skills, poor evaluation skills of local banks and shortages of available capital were common to these localities. All regions, however, lamented about: income and corporate taxes, lack of skilled labor, high indirect labor costs, overregulation of the labor market and low rates of growth. Lack of skilled labor and disparities in education and training was viewed as one of the most important elements in determining regional competitiveness. The first report noted that long term unemployment, especially in the problem regions in southern Italy, Northern Ireland, Ireland and others was due to a mismatch between skills available and qualifications demanded. To demonstrate the disparities in 1990, in the age

[4] These elements were also discussed in previous reports but not in such fine detail.

group 15-19, Portugal had less than 40% (lowest) in education and training while Germany, Netherlands and Denmark(highest) had 85%. Even assuming the required schooling could be provided immediately,the time lag between construction and improved labor force would be lengthy.

The next important factor was research and development. Weaker Member States tend to spend less, and what they do spend tends to be concentrated in the relatively more well-to-do areas. Madrid receives 50% of all Spanish R&D expenditure, the Italian Northwest accounted for 72% and the Portuguese coastal regions, 93%. In the Community as a whole, 75% of all R&D expenditure, private and public, is concentrated in Germany, France and the UK. From this the Community concluded that the slow progress of regional development is attributable in part due to this skewed concentration of R&D.(Or is R&D concentration skewed because of the slow progress of development? This demonstrates how this type of analysis is always subject to accusations of tautology.) The last element discussed in the fourth report is oil dependence. While it affects the entire community, Portugal, Greece, Spain and Italy are the most highly dependent.

The overall prognosis is not very encouraging. The hope is that the changes ushered in as a result of the consolidation of the Single European Market will present new opportunities to bolster the regions that lag behind. It will also provide new constraints. The overall comparison between strong and weak has only provided us with a checklist of what the poorer regions do not have. But whether they are weak because they do not have them or they do not have them because they are weak is not a question so easily answered. Instead, what we need to examine is which regions have moved from weaker to stronger or vice versa so we can learn how that improvement was possible.

II. Flyers and Divers

The purpose of this section is to look more in depth at the actual changes occurring over time in the rankings of regions according to two indicators: GDP per head at market prices and exchange rates and GDP per head measured in purchasing power standards(PPS). What must be reiterated as we enter into our investigation is that while I am doing nothing particularly original with this data with respect to the EC periodic reports, I am using it to pose slightly different, and I would argue, more fitting questions in our objective to understand and then redress regional disparities. As noted earlier, the emphasis of the EC periodic reports was to assess the potential of the regions to both adapt to changes in the international economy and develop indigenous resources to the highest degree possible.

To undertake this analysis, GDP per head measured at current market prices and exchange rates was chosen in the first periodic report as the key indicator because it demonstrates the income generating capacity of an economic unit in the international arena. The assumption that underpins this logic is that integration is succeeding if all firms take the levels and changes of international prices as a reference point.(1st report, 1981) This is particularly relevant because the EC faces increasing challenges from the international economy and, even if an area is not directly involved in international markets, international prices affect regional producers through interregional linkages.[5]

The fourth report, alternatively, applied GDP per head in purchasing power standards as its key indicator for income disparities. Purchasing power standards (PPS) compares prices for the same basket of goods and services in the different Member States. Income is expressed in terms of its ability to purchase that basket. PPS is, then, an indicator of the standard of living because it examines the internal purchasing power of a region's residents. The first report argues that it is not an adequate indicator for comparing economic performance and potential. However, it may be a better indicator of development especially as the objective of the Community is a convergence of living standards not just income. This change in emphasis from market prices to PPS in the fourth report was not explained.[6] This analysis will employ both in order to draw a more complete picture.

The EC reports concentrate on the question; Are the regions of the Community as a whole converging or diverging? However, if the purpose of these investigations is to understand how

---

[5] There are certain problems noted by the Commission reports regarding this indicator. First, short run exchange rate variations may draw a skewed picture of real economic activity. Second, this indicator cannot account for internal price differentials, especially of services and goods not traded on the international market.

[6] The third periodic report ranked the regions according to a synthetic index of the intensity of regional problems they devised. The index was comprised of several variables including GDP and employment rates. Why it was not repeated in the fourth report is unknown.

regions adapt to change and maximize their development potential, we need to examine where changes actually occur, not the continuity we witness in the list of strongest and weakest regions. Therefore, the crucial question is not "is there convergence or divergence," but rather, "which regions are converging and which are diverging?" Only by answering this question first, can we progress to where they are, when does this change occur, and most importantly, how and why does change occur? Only by answering the how and why can we inform future policy.

Using the REGIO database as my source, I used both GDP per head according to market prices and PPS to classify the regions. I then compared how the rankings changed over the years to spot the flyers (those that improved) and the divers (those that declined). One(1) indicates the strongest region and 167 the weakest. There are 170 regions but the data for Corsica, the Azores and Madeira was unavailable so they were excluded.[7] Before 1981, the data for Spain, Greece and Portugal was not available.[8] The core of the comparison will be the decade of the eighties complemented by references to several years in the seventies for the EC(9).Since the Greek, Portuguese and Spanish

[7] There are 170 regions at NUTS level II, the standard EC categorization of regions. See the periodic reports and the REGIO codebook for more information.

[8] Additionally, the classification of British regions was recategorized for the decade of the eighties making comparisons with the seventies somewhat awkward. In 1970 and 1977, using the older, larger classifications, there was not a single region above the European mean. In 1981, after the recategorization, there were two in the top 25 and eleven above the mean, which is a change not entirely attributable to the entry of Greece, Portugal, and Spain.

regions constitute the bulk of the weaker regions, including these earlier years will help us distinguish between absolute and relative changes, especially since the addition of these three countries must naturally pull down the EC mean. The years examined, 1970, 1977, 1981, 1984, 1986, and 1987 were chosen according to data availability. [9]

The first step will be to briefly review the changes at the top and bottom of the rankings. We may examine these regions from 1970 after first acknowledging the reclassification of British regions (see footnote 7) and certain other areas which had originally contained large cities. Of importance for our analysis, Brussels is listed independently of Brabant and Storkobenhavn is Hovedstadsregionen in 1981 and after. As is obvious from appendix 1, the top regions remain more or less stable over time. The only clear change is the entry of Italy from 0 regions in 1970 and ending up with two, Valle D'Aosta and Liguria, in 1987. Luxembourg drops out in 1981 and France goes from four regions in 1970 to 1 in 1987. The rest remain rather stable on the average. As for the bottom 25, once Spain, Greece and Portugal enter in 81, they comprise the bottom tier with an Italian region or 2 for company. In the 1970s, the Italian Mezzogiorno dominated the bottom 25. While these regions leave this category in the 1980s because of the enlargements, these regions have remained substantially below the EC average.

Contrasting the rates of growth of the EC, and the top and

[9] Only the data for GDP per head according to market prices was available for 1977 so PPS is not included for that year. In addition, the data for Stuttgart was not available in 1981 for PPS so only 166 regions were ranked.

the bottom 25 regions in the eighties, the evidence is not promising. Table 1 below shows that between 1981 and 1984 and 1984 and 1986, the strong regions have a higher growth rate. From 1986-1987, the distance between the two has closed greatly with the growth rate of the stronger 25 only .11% higher than the weaker 25. Notably, the weaker 25's growth rate between 86-87 was higher than the Community average. Convergence, as noted earlier, depends upon the weaker regions having the faster rate of growth than the Community mean.

TABLE 1
GROWTH RATES IN THE 1980S ACCORDING TO GDP AT MARKET PRICES(ECU) AND PURCHASING POWER STANDARDS(PPS) PER INHABITANT
in percent

UNIT	1981-1984		1984-1986		1986-1987	
MEAN	ECU	PPS	ECU	PPS	ECU	PPS
EC(12)	25.0	33.4	13.1	17.0	4.9	6.6
TOP 25	26.6	35.4	16.4	18.2	5.6	6.0
BOTTOM 25	22.8	33.6	8.6	17.2	5.4	6.7

Looking at GDP according to PPS standards in appendix 2, again we see the same degree of stickiness for both highest and lowest 25 since 1981. What is interesting however is the number of Italian regions in the top 25---6 or 7, constituting the second highest number of regions for one country (Germany had the largest number). Comparing PPS to market prices, we see that the Italian regions are replacing German regions, the others are more or less the same. This suggests that the national context in which these regions function may hold some important clues as to why certain regions thrive and others do not. Turning to growth rates, (see table 1 above) the distance between stronger and weaker 25 is much closer using PPS. In all cases, the weaker 25 average growth rate is higher than the EC average which suggests that some convergence of living standards in the EC 12 is being slowly realized. In 86-87, it is higher than the strongest 25 although only by .71%. Significantly, the average of the top 25 was lower then both the EC and bottom 25 means. This underscores the above conclusion than convergence is being achieved.

To finish up this brief look at convergence or divergence of the Community as a whole one more set of statistics needs to be examined---the number of regions above the mean(see table 3 below). Looking at GDP at market prices, a disturbing trend is immediately evident--the percent of regions above the Community mean is decreasing. In 1981, 48% or 83 regions had incomes above the mean. In 1987, 42% or 71 regions were above. Table 3 shows a steady downward trend in the 80's. This would suggest that the wealthier regions are getting wealthier and pulling up the mean. Looking at PPS, the number of regions above the mean remains fairly stable, if anything it increases going from 38% in 1981 to 39% in 1987. Although every year there are fewer regions above the mean according to this indicator, it is here we are witnessing a stronger trend towards convergence.

TABLE 2
PERCENTAGE OF REGIONS ABOVE THE MEAN
ACCORDING TO GDP AT MARKET PRICES(ECU) AND PPS
IN PER CENT

1970		1977		1981		1984		1986		1987	
ECU	PPS	ECU	PPS	ECU	PPS	ECU	PPS	ECU	PPS	ECU	PPS
43%	37%	58%	NA	48%	38%	47%	39%	43%	40%	42%	39%

We now turn to the heart of this study, convergence or divergence of individual or groups of regions. Many Italian and British regions have experienced marked changes in ranks. I should first mention that both Italy and Britain endured vast economic and political upheaval during the 1970s, more so than most of the other Community Member States. This makes the success of the Italian regions especially deserving of notice. We will first examine GDP at market prices. Below is a list of Italian flyers, regions which have risen steadily in position in the 1980's.

TABLE 3
LIST OF REGIONAL RANKING AND PERCENTAGE OF EC MEAN(EC=100)

	1981 rank	1981 % of mean	1987 rank	1987 % of mean	Change rank	EC--48% S25-55% W25-40% % of change between 81--87 (growth rate)
Liguria	65	104	23	129	+42	83%
Lombardy	58	109	26	128	+32	75%
Piedmont	69	102	37	121	+32	75%
Emilia-Romagna	63	96	31	126	+32	77%
Friuli-V.-G.	95	95	44	117	+51	75%
Lazio	121	86	61	106	+60	81%
Tuscany	106	93	46	114	+60	78%
Veneto	119	87	68	102	+51	74%
Trentino-A.-A.	107	93	52	110	+56	76%
Umbria	122	85	74	99	+48	71%
Marche	124	81	81	96	+43	71%

The growth of these Italian regions is impressive. All have growth rates well above the EC mean and the average of the top 25 regions. Six regions have moved above the mean and two others right up to it in a period when the number of regions above the mean is decreasing. The regions in the Mezzogiorno, however, still remain at the bottom rankings.

Britain had quite a different experience during this decade. All regions sustained some degree of decline with only a couple exceptions. Significantly, the regions above the mean in 1981 all followed a consistent downward trend ending up below the mean in 1987 except for the two ranked in the top 25. Below is a partial list of British regions consisting only of those above the mean in 1981.

TABLE 4
LIST OF REGIONAL RANKING AND PERCENTAGE OF EC MEAN(EC=100)

	1981		1987		Change	EC--48% S25-55% W25-40%
	rank	% of mean	rank	% of mean	rank	% of change between 81—87 (growth rate)
Leice-Nhampt	80	101	99	89	-19	27%
Manchester	78	101	103	82	-25	21%
Derby-Nott	77	102	107	82	-30	19%
Highlands	75	101	114	77	-39	13%
Borders	67	103	102	84	-17	22%
Cumbria	62	106	98	86	-36	21%
Bdfrd-Hrt	55	110	79	96	-24	30%
Berk-Oxf	54	110	83	95	-29	29%
Cheshire	52	110	85	94	-33	31%
Avon	64	105	89	92	-25	30%
Hampshire	42	113	91	91	-49	19%
London	6	158	17	136	-11	27%
Grampian	24	124	55	108	-31	30%

The most striking fact illustrated by the above data is that the rate of growth of all the regions, including London which is ranked as one of the top regions in Europe, is well below the means of the EC, the strongest 25, and more alarming, of the weakest 25. The rest of Britain, already below the mean, suffered this same steady decline. Not one British region improved its position between 81 and 87 although one or two did manage to hold their position.

Many French regions remained more or less stable in terms of relative rank. However, France did have a notable number of divers.

TABLE 5
LIST OF REGIONAL RANKING AND PERCENTAGE OF EC MEAN(EC=100)

	1981 rank	1981 % of mean	1987 rank	1987 % of mean	Change rank	EC--48% S25-55% W25-40% % of change between 81--87 (growth rate)
Chmpgne-Ardnne	26	122	47	112	-21	37%
Lorraine	42	112	72	99	-30	31%
Nord-pas d.c.	61	107	77	98	-16	36%
Picardy	39	114	67	103	-28	33%
Frnche-Cmpte	40	114	60	106	-20	38%
Alpes-C.D'az.	37	116	56	108	-19	38%

Like the British divers, all these regions have growth rates below the EC, top 25 and bottom 25 averages. Lorraine and Nord Pas de-Calais were also much higher ranked in 1970, 34 and 38 respectively which makes their fall even more severe.

The German regions, which make up a major fraction of the strongest regions, kept their positions. Several of them which had been located relatively lower did improve noticeably. All had growth rates above the EC mean and the top 25 mean but below the growth rates of the Italian regions which average 76%

TABLE 6
LIST OF REGIONAL RANKING AND PERCENTAGE OF EC MEAN(EC=100)

	1981 rank	1981 % of mean	1987 rank	1987 % of mean	Change rank	EC--48% S25-55% W25-40% % of change between 81--87 (growth rate)
Schwaben	51	112	25	129	+26	70%
Kassel	52	111	35	123	+17	64%
Lunenberg	118	88	84	95	+34	60%
Niederbayern	87	98	49	111	+38	68%

I will examine the rest of the countries together because only a few regions moved significantly. These can be examined from 1970 until 1987. In Belgium, Liege, West Flanders, Hainault, and Namur Province all underwent fairly serious decline moving from 36 to 71, 41 to 64, 60 to 108, and 62 to 104 respectively. The movement of Hainault and Namur Province to well below mean in 80s is disturbing because they both hugged the mean in the 70s and the mere addition of Greece, Spain and Portugal in the accounting should have bumped them up. This shows absolute not just relative decline. Two Dutch regions also suffered such decline between the 70's and 80's. Gelderland fell from 68 to 100 and South Holland went from 30 to 51. One Dutch regions showed marked improvement, Drenthe rose from 91 in 1970 to 48 in 1987. However earlier in the 80's it was actually ranked at 34 so it has been experiencing some fluctuation.

One last region deserves mention---Baleares in Spain. Whereas its improvement has not been remarkable, from 130 or 72% of the EC mean in 1981 to 112 or 80% of the mean in 1987, it is the only region in any of the three later countries, Greece, Spain and Portugal, which has demonstrated steady improvement. Its growth rate is 66% which is above both the EC and top 25 means.

Let us now look at the regions which have changed positions using GDP per head at purchasing power standards from 1981 to 1987. One encouraging find is that the rate of growth of the bottom 25 between 1981 and 1987 which was 70% is higher than the both EC rate at 66% and the mean of the strongest 25 at 67. As noted previously, this variable indicates increasing convergence of living standards.

Looking now at the data, the top 25 and bottom 50 show a high degree of steadfastness. Italy represents a large and very stable percentage of the top 25-30 regions in the decade of the 80's. Improvement can be noted if we compare the positions from 1970, 1981 and 1987.

TABLE 7
RANKING OF ITALIAN REGIONS

Region	1970	1981	1987
Valle D'Aosta	25	5	5
Emilia-Romagna	55	11	13
Piedmont	33	14	16
Friuli-V.-G.	62	22	22
Tuscany	70	28	25
Trentino-A.-A.	85	29	27
Lazio	69	42	35
Umbria	98	52	56
Veneto	80	40	41

Both France and the Netherlands had a large number of regions that declined due to growth rates lower than the means of the Community, the bottom and the top 25 regions. This downward trend was not so apparent for the Netherlands or as many French regions when GDP at market prices was surveyed.

TABLE 8
LIST OF REGIONAL RANKING AND PERCENTAGE OF EC MEAN(EC=100)

	1981		1987		Change	EC--66% S25-67% W25-70%
	rank	% of mean	rank	% of mean	rank	% of change between 81--87 (growth rate)
Chmp-Ardnn	35	110	59	103	-24	55%
Frnch-Compte	54	103	74	97	-20	56%
C. Alps D'Az.	47	105	69	99	-22	56%
Lorraine	58	102	96	91	-38	48%
Picardy	53	104	84	94	-31	51%
Bourgogne	65	99	81	95	-16	59%
Pays Loire	67	99	87	93	-20	56%
N.Pas d. C.	75	97	105	90	-30	54%
Utrecht	37	107	70	98	-33	52%
Zeeland	38	107	62	101	-24	57%
Overjissel	82	94	112	89	-30	56%
Gelderland	96	92	125	83	-29	51%
Friesland	118	86	136	78	-18	51%

The decline of some of these regions started back in the 1970's. In 1970, Lorraine, North Pas de Calais were 40 and 47 respectively while Overjissel, Gelderland, and Zeeland were positioned at 63, 51,and 28. Several other Dutch regions need to be discussed. Drenthe appears to dive in eighties moving from position 30 to 42 but in 1970 it was ranked at 79 so it has in effect, improved. South-Holland declines from 15 in 1970 to 47 in 1987 but the fall does not seem so harsh if one only looks at the 80s. It has been a steady trend downward however. The same occurred with North Brabant which went from position 39 in 1970 to 89 in 1987.

The United Kingdom presents the most provocative results. Fifteen regions experienced upward movement of a minimum of 15 ranks with five regions surpassing the mean during this decade. Two regions, Highlands and South Yorkshire declined by 20 positions. The other 18 British remained stable in their ranking. This is particularly interesting because of Britain's poor performance when employing GDP at market prices. Below are several examples of the regions that improved. Notably, their rate of growth is indeed dynamic---easily surpassing the means of the EC and the top 25.

TABLE 9

LIST OF REGIONAL RANKING AND PERCENTAGE OF EC MEAN(EC=100)

	1981		1987		Change	EC--66% S25-67% W25-70%
	rank	% of mean	rank	% of mean	rank	% of change between 81—87 (growth rate)
N. Yorkshire	93	91	43	106	+50	94%
East Anglia	78	95	49	105	+29	83%
London	6	150	4	161	+2	78%
Avon	62	100	37	109	+55	81%
Cheshire	48	105	31	112	+17	77%
Berk-Oxford	49	105	29	113	+20	80%
Bedford-Hrt	51	105	28	115	+23	82%

Making a quick comparison with GDP at market prices, Cheshire fell in rank 33 places but here improved by 17. Berkeley-Oxford fell 29 spots but here flies up twenty places. Before their growth rates were well below all three means, here they are above them. One possible explanation behind this mystery is that consumption is growing at a much greater rate than production. GDP per head according to PPS can also be interpreted as consumption because it determines how much the average citizen is able to consume. If this is indeed the case, then we must be cautious about interpreting the above results positively because it would indicate actually an increase in indebtedness because consumption is greater than production.

Germany also presents us with a few mysteries when we compare the two indicators. In GDP at market prices, the German regions monopolize the top positions and most movement we noticed was clearly upward. Using PPS, Germany has fewer regions in the top 25 (although it still has the highest number) and most changes experienced by the Germany regions were in the downward direction. All decline can be charted from 1970.

TABLE 10
RANKING OF REGIONS FOLLOWED BY
PERCENTAGE OF EUROPEAN MEAN IN PARENTHESES(EC=100)

Region	1970	1981	1987	EC-66%, T25-70%, B25-67% %change 1981-1987
Detmold	31	44(106)	60(102)	61%
Frieburg	27	39(107)	51(104)	63%
Munster	54	60(102)	80(95)	56%
Oberfranken	42	63(100)	76(97)	60%
Weser-Ems	64	85(93)	109(88)	58%
Trier	81	98(91)	118(86)	57%

The rates of growth are below all three means. Several other regions showed marked decline between 1970 and 1981 but have held their positions stable in the 80s. These are:

TABLE 11
RANKING OF GERMAN REGIONS IN PPS

Region	1970	1981	1987
Koln	13	32	33
Tubingen	23	41	46
Schlswg-Hlstn	50	72	82
Arnsberg	24	43	52
Koblenz	60	94	98
Hannover	21	34	36

Two regions demonstrated marked improvement. These were the two which improved when looking at GDP at market prices. The first is Niederbayern which moves up to 92 from 113 in 1981 with a growth rate of 74%. just slightly above all three means and Schwaben which moves from 64 in 1981 to 45 in 1987. Schwaben's growth rate during this period was 77%. However, Schwaben was ranked at 38 in 1970 so despite the dynamic growth rate it has not yet returned to its earlier strong position. The rest of the German regions have remained relatively stable.

Only a few more regions need to be checked. Looking at the Danish regions of Vest for Storebaelt and Ost for Storebaelt, they are found hovering around the mean when this indicator was employed. In 1981 they are 98 and 93 percent of the EC mean and in 1987 they are 104 and 101 per cent respectively. Using GDP at market prices, they appear stronger. Vest for Storebaelt moves from 117 to 137 per cent of the EC mean in the 80s while Ost moves from 112 to 132. While in both cases they fluctuate a bit, there was decline in the 70s leading to improvement in the 80s. We can conclude that they are basically strong regions that are recovering from the recession and economic shocks experienced during those years.

Last, the Baleares in Spain again makes significant improvement moving from rank 87 or 92% of the mean to rank 48 at 105%. This is the first movement above the mean for a Spanish region. The rate of growth is an impressive 90%. Despite its wonderful showing in both indicators, the income is generated predominately from tourism.

Some striking differences emerge when we compare this indicator and GDP in market prices. This will serve to stimulate some provocative questions and hypotheses. First, many of the British regions which declined using the first indicator, improved according purchasing power standards. Second, the top 25 positions were shared in the eighties by Germany and Italy when PPS was employed while when market prices were used Germany was incontestably dominant. Third, there were many more German regions below the mean, and some Spanish regions were at the mean or even above (Baleares). Denmark's region were lower placed, and more French and Dutch regions show decline where they had demonstrated stability using GDP at market prices. What these discrepancies suggest is that growth and development are not synonymous concepts. I will now turn to the conclusion to elaborate this point.

CONCLUSION

Economic growth, which is actually measured with GDP at market prices, is not always equivalent to real development. Growth is solely an economic notion. For instance, both

Groningen(NL) and Grampian(UK) have extremely high regional outputs but in both cases it comes from the extraction of natural resources: gas (Groningen) and oil (Grampian). They may be wealthy regions, but they are not necessarily developed. Development is a multi-dimensional process which centers as much on changes in structures and institutions as on economic growth and output. (Baster, 1984) For example, the study The Regions and European Integration: the Case of Emilia-Romagna examined the concurrent growth in institutional performance and economic prosperity of one Community region, Emilia-Romagna, and clearly demonstrated both the multi-dimensional character of development and the significant role played by subnational levels of government. (Leonardi and Nanetti, 1990)

By re-examining the results of section 2, we can see that there is some evidence for arguing that regional development, leading to true convergence of the European regions, may be strongly promoted by regional government activity. First, the strongest regions, found in Germany, have the most developed regional institutions with the most wide-spread powers. Second, the weakest regions, found in Portugal, Ireland and Greece have regional bodies in name only. Third, the most dynamic regions, found in Italy, have had regional governments growing in institutional capability over the past two decades. Here economic and political development appears to be growing hand in hand. Fourth, the strongest regions in Spain, which is the fastest growing country of the weakest group, have the greatest degree of autonomous powers in the Spanish context. Fifth, the regions showing an alarming decline of output, the British areas, also experienced during the same period a centralization of power toward the national government away from the subnational institutions. Why we see an improvement in the standard of living in Britain is not readily answerable without further research. France may be experiencing a similar pull of resources toward the center which may explain why many regions experienced decay. Although France regionalized in 1985, there is still some question as to whether the decision-making authority has actually been decentralized.

In this framework, my objective is to generate several important hypotheses for future research. Peter Katzenstein's excellent study, Small States in World Markets offers the most compelling criterion for measuring successful adjustment to economic change by gauging, "...the extent to which social coalitions, political institutions, and public policies facilitate or impede shifts in the factors of production that increase economic efficiency with due regard to the requirements of political legitimacy." (Katzenstein, 1985: 29) Although the regulation of socioeconomic conflict at the regional level may or may not be a variant of the democratic corporatism that Katzenstein discusses, the study of interest mediation as a key variable for explaining economic development and management of industry at the subnational level has been receiving increasing attention. (Trigilia: 1986, Bellini: 1990)

Using these ideas, I would like to put forth several hypotheses for future research suggested by the findings of this paper. First, the regions that have demonstrated obvious improvement have had regional institutions able to combine economic flexibility and sociopolitical stability in the face of the unstable economic times experienced in the 1970s and early 80s.[10] Second, those which declined experienced similar decay in the capability of their subnational political institutions. Third, economic strength is highly correlated with strong, autonomous political capability and an institutional capacity for interest mediation at the subnational level. Last, the economically weaker regions have less effective political bodies, if any at all, which rely more on clientalistic-based relationships rather than institutional mediation of interests.

As the deadline for the implementation of the Single European Market approaches we must ask if the regions do indeed have the capability to adapt to the changes which will most certainly come. Given the size of the existing disparities, it seems that the answer for many regions is regrettably 'no'. To redress this problem, further investigation along the lines I have outlined may provide some direction.

[10] These ingredients were essential to the success of the small states in Katzenstein's work.

APPENDIX 1.1
TOP 25 RANKED REGIONS ACCORDING TO GDP AT MARKET PRICES
RANKED FROM STRONGEST TO WEAKEST

RANK70	RANK77	RANK81
HAMBURG	GRONINGEN	GRONINGEN
ILE DE FRANCE	HAMBURG	HAMBURG
BREMEN	BREMEN	ILE DE FRANCE
STORKOBENHAVN	ILE DE FRANCE	BRUXELLES*
DUESSELDORF	STORKOBENHAVN	BREMEN
OBERBAYERN	BERLIN (W)	LONDON*
STUTTGART	ANTWERPEN	DARMSTADT
DARMSTADT	STUTTGART	HOVEDST**
BERLIN (WEST)	KARLSRUHE	OBERBAYERN
KARLSRUHE	DUESSELDORF	STUTTGART
KOELN	OBERBAYERN	W. BERLIN
HAUTE-NORMAN.	DARMSTADT	KARLSRUHE
LUXEMBOURG (GD)	BRABANT	DEUSSELDORF
MITTELFRANKEN	MITTELFRANKEN	ANTWERPEN
BRABANT (B)	V.F. STOREBAELT	HAUTE-NORMANDIE
HANNOVER	RHEINHESSEN-PF	RHEIN-PF
ANTWERPEN PRO	HANNOVER	BRABANT
TUEBINGEN	OST F. STOREBAELT	MITTELFRANKEN
ARNSBERG	NOORD-HOLLAND	NOORD-HOLLAND
RHEINHESSEN-PF	ZUD-HOLLAND	ALSACE
FREIBURG	KOELN	KOELN
DETMOLD	TUEBINGEN	HANNOVER
RHONES-ALPS	HAUTE-NORMANDIE	RHN-ALPES
VEST-FOR- (DK) STOREBAELT	ZEELAND	GRAMPIAN*
CHAMPAGNE-ARDE	LUXEMBOURG (GD)	VAL D'AOSTA

* NOT CLASSIFIED SEPARATELY IN 70 OR 77.
** INCLUDES STORKOBENHAVN

RANK84	RANK86	RANK87
GRONINGEN	GRONINGEN	GRONINGEN
HAMBURG	HAMBURG	HAMBURG
ILE DE FRANCE	ILE DE FRANCE	DARMSTADT
DARMSTADT	DARMSTADT	ILE DE FRANCE
BREMEN	BREMEN	BREMEN
HOVEDST	HOVEDST	HOVEDST
OBERBAYERN	BRUSSELS	OBERBAYERN
BRUSSELS	OBERBAYERN	BRUSSELS
STUTTGART	STUTTGART	STUTTGART
LONDON	W. BERLIN	W. BERLIN
W. BERLIN	VAL D'AOSTA	VAL D'AOSTA
VAL D'AOSTA	DUESSELDORF	DUESSELDORF
DUESSELDORF	MITTELFRANKEN	MITTELFRANKEN
MITTELFRANKEN	KARLSRUHE	KARLSRUHE
KARLSRUHE	V. STOREBAELT	V. STOREBAELT
RHEIN-PF	LONDON	KOELN
KOELN	KOELN	LONDON
V. STOREBAELT	O. STOREBAELT	RHEIN-PF
HANNOVER	RHEIN-PF	HANNOVER
NOORD-HOLLAND	HANNOVER	O. STOREBAELT
GRAMPIAN	ANTWERPEN	ANTWERPEN
ANTWERPEN	HAUTE-NORMANDIE	BRAUNSCH
BRAUNSCH	BRAUNSCH	LIGURIA
TUEBINGEN	LIGURIA	SAARLAND
SCHWABN	SAARLAND	SCHWABN

APPENDIX 1.2
BOTTOM 25 REGIONS ACCORDING TO GDP AT MARKET PRICES
LISTED WEAKEST TO STRONGEST

1970	1977	1981	1984	1986	1987
CALABRIA(I)	CALABRIA(I)	CENTRO(P)	CENTRO(P)	NORTE(P)	NORTE(P)
MOLISE (I)	SICILIY (I)	NORTE (P)	ALGRAVE(P)	ALENTEJO(P)	ALENTEJO(P)
BASILIC.(I)	CAMPANIA(I)	ALENTEJO(P)	CENTRO(P)	ALGRAVE(P)	ALGRAVE(P)
SICILY(I)	MOLISE(I)	ALGRAVE(P)	ALENTEJO(P)	CENTRO(P)	CENTRO(P)
PUGLIA(I)	PUGLIA(I)	THRAKI(GR)	LISBOA(P)	THRAKI(GR)	THRAKI(GR)
CAMPANIA(I)	BASILIC.(I)	N.A.AIG.(GR)	THRAKI(GR)	IPEIROS(GR)	IPEIROS(GR)
ABRUZZI(I)	IRELAND	IPEIROS(GR)	C-MELIL.(S)	N.A.AIG.(GR)	N.A.AIG.(GR)
IRELAND	SARDEGNA(I)	EX-MAD.(S)	EX-MAD.(S)	THESSAL.(GR)	THESSAL.(GR)
SARDEGNA(I)	ABRUZZI(I)	KRITI(GR)	IPEIROS(GR)	KRITI(GR)	KRITI(GR)
UMBRIA	N.IRELAND(UK)	C-MELIL.(S)	N.A.AI.(GR)	C-MELIL.(S)	MACEDON.(GR)
MARCHE(I)	MARCHE(I)	LISBOA(P)	ANDALUC.(S)	MACEDON.(GR)	PELEPON.(GR)
N.IRLND(UK)	UMBRIA(I)	ANAT.M.(GR)	THESS.(GR)	LISBOA(P)	C-MELIL.(S)
NORTH(UK)	LAZIO(I)	THESSAL.(GR)	LAMANCHA(S)	PELEPON.(GR)	LISBOA(P)
TRENTINO(I)	WALES(UK)	ANDALUC.(S)	KRITI(G)	EX-MAD.(S)	ANAT.M.(GR)
FRSLND(NL)	E.ANGLIA(UK)	MACEDON.(GR)	MACED.(GR)	ANAT.M.(GR)	ANAT.S.(GR)
VENETO(I)	VENETO(I)	PELEPON.(GR)	PELOPO.(GR)	ANAT.S.(GR)	EX-MAD.(S)
DRENTHE(NL)	S.WEST(UK)	LAMANCHA(S)	GALICIA(S)	ANDALUC.(S)	ANDALUC.(S)
BRETAGNE(F)	NORTH(UK)	ANAT.S.(GR)	MURCIA(S)	LAMANCHA(S)	LAMANCHA(S)
LUXEMB.(B)	TUSCANY(I)	CANARIAS(S)	ANAT.M.(GR)	MURCIA(S)	MURCIA(S)
WALES(UK)	YRKSHR-H(UK)	GALICIA(S)	ANAT.S.(GR)	GALICIA(S)	GALICIA(S)
MIDI-PYR.(F)	E.MDLNDS(UK)	MURCIA(S)	CANARIAS(S)	CANARIAS(S)	CANARIAS(S)
S.WEST(UK)	N.WEST(UK)	CALABRIA(I)	CAS-LEON(S)	CAS-LEON(S)	CAS-LEON(S)
LAN.ROUS.(F)	SCOTLAND(UK)	CAS-LEON(S)	VALENCIA(S)	VALENCIA(S)	VALENCIA(S)
E.ANGLIA(UK)	W.MDLNDS(UK)	VALENCIA(S)	ASTURIAS(S)	CALABRIA(I)	CALABRIA(I)
LIMOUSIN(F)	FRIULI(I)	SICILY(I)	CALABRIA(I)	CANTABRIA(S)	CANTABRIA(S)

APPENDIX 1.3
GDP PER HEAD AT MARKET PRICES

REGION	1981	1984	1986	1987	1970	1977
GRONINGEN	1	1	1	1	26	1
HAMBURG	2	2	2	2	1	2
ILE DE FRANCE	3	3	3	4	2	4
BRUSSELS	4	8	7	8	--	--
BREMEN	5	5	5	5	3	3
LONDON	6	10	16	17	--	--
DARMSTADT	7	4	4	3	8	12
HOVEDST	8	6	6	6	4	5
OBERBYRN	9	7	8	7	6	11
STUTTGART	10	9	9	9	7	8
W. BERLIN	11	11	10	10	9	6
KARLSRUHE	12	15	14	14	10	9
DUSSELDORF	13	13	12	12	5	10
ANTWERPEN	14	22	21	21	17	7
HAUTE-NORMND	15	32	22	28	12	23
RHEIN-PF	16	16	19	18	20	16
BRABANT	17	43	40	39	15	13
MITLFKN	18	14	13	13	14	14
N-HOLLAND	19	20	26	33	32	19
ALSACE	20	27	30	34	28	41
KOLN	21	17	17	16	11	21
HANNOVER	22	19	20	19	16	17
RHNES-ALPES	23	37	36	38	23	37
GRAMPIAN	24	21	48	55	--	--
VAL. D'AOSTA	25	12	10	11	39	51
CHMP-ARDN	26	45	43	47	25	39
LUXEMBOURG-GD	27	33	33	36	13	25
FREIBURG	28	28	31	29	21	26
TUBINGEN	29	24	29	27	18	22
ARNSBERG	30	30	32	30	19	29
SAARLAND	31	31	25	24	48	35
DETMOLD	32	35	35	32	22	34
BRAUNSCH	33	23	23	22	29	32
DRENTHE	34	44	42	48	91	61
Z. HOLLAND	35	38	44	51	30	20
V. STOREBAELT	36	18	15	15	24	15
ALP-C. AZUR	37	51	52	56	45	62
AQUITAINE	38	40	39	42	56	64
PICARDY	39	63	63	67	40	47
FRN-CMTE	40	62	56	60	49	40
MUNSTER	41	48	46	41	44	28
HAMPSHIRE	42	75	93	91	--	--
CENTRE	43	49	45	50	46	48
W-VLAANDRN	44	78	66	64	41	48
LORRAINE	45	66	70	72	34	50
UTRECHT	46	52	62	66	61	33
OBERFRKN	47	47	41	40	35	30
ZEELAND	48	41	54	58	43	24
O. STOREBAELT	49	36	18	20	27	18
VLAAMS-G	50	69	60	59	--	--
SCHWABN	51	25	27	25	31	27

REGION	1981	1984	1986	1987	1970	1977
KASSELL	52	39	37	35	50	52
CHESHIRE	53	50	78	85	--	--
BERK-OXF	54	53	84	83	---	---
BEDFRD-HRT	55	57	82	79	---	---
BOURGOGNE	56	68	59	65	53	54
PAYS-LOIRE	57	70	65	69	59	65
LOMBARDY	58	26	28	26	37	76
SCHL-HOLS	59	46	47	43	42	43
LIEGE	60	88	73	71	36	31
N.PASDECALAIS	61	82	74	77	38	53
CUMBRIA	62	72	99	98	---	---
EMILIA-ROMAGNA	63	34	34	31	71	81
AVON	64	67	91	89	---	---
LIGURIA	65	29	24	23	33	78
WESER-EMS	66	65	61	57	54	44
BORDERS	67	86	101	102	---	---
KOBLENZ	68	60	58	54	52	49
PIEDMONT	69	42	38	37	51	80
BSSE-NORMNDY	70	59	67	70	65	69
O.VLAANDRN	71	92	77	73	58	42
TRIER	72	74	69	63	67	60
UNTERFRANKEN	73	54	50	45	55	45
GIESSEN	74	64	57	53	---	---
HIGHLANDS	75	103	113	104	---	---
BRETAGNE	76	84	76	80	90	77
DERBY-NOTT	77	99	104	107	---	---
MANCHESTER	78	97	102	103	---	---
W. MIDLANDS	79	89	96	97	63	84
LEICE--NHAMPT	80	79	94	99	---	---
MIDI-PYR	81	81	72	75	87	75
LIMBURG (B)	82	91	81	76	78	38
E. ANGLIA	83	71	98	94	84	93
N. BRABANT	84	80	75	78	57	46
POIT. CHRNTES	85	90	79	82	74	70
AUVERGNE	86	83	83	86	70	72
NIEDERBAYERN	87	55	53	49	75	58
OVERJSL	88	96	88	90	76	55
OBERPFZ	89	77	68	62	69	57
S-YORKSHIRE	90	119	119	123	---	---
E-W SUSSEX	91	87	97	95	---	---
ESSEX	92	107	110	111	---	---
N-YORKSHIRE	93	76	90	93	---	---
LANG-ROUS	94	94	92	92	---	---
FRIULI	95	56	49	44	77	83
GELDERLAND	96	105	95	100	68	63
DORSET	97	102	111	110	---	---
WALLONE	98	116	100	96	---	---
DUMFRIES	99	109	116	116	---	---
N-UMBERLAND	100	110	120	120	---	---
W-YORKSHIRE	101	104	103	105	---	---
LIMOUSIN	102	93	87	88	83	74
LIMBURG (NL)	103	95	85	87	82	59
CLEVE-DURHM	104	115	125	127	---	---
KENT	105	117	123	127	---	---

REGION	1981	1984	1986	1987	1970	1977
TUSCANY	106	58	51	46	81	89
TRENTINO-A-A	107	61	55	52	94	82
LANCASHIRE	108	108	114	115	---	---
NERSEYSIDE	109	113	117	119	---	---
HUMBERSIDE	110	111	108	113	---	---
LINCOLN	111	106	115	117	---	---
NAMUR	112	123	107	104	62	56
FRIESLAND	113	114	105	106	93	71
LUXEMBOURG(B)	114	121	106	101	89	67
HAINAULT	115	126	109	108	60	66
GWENT-GLA	116	118	121	125	---	---
CORNWALL	117	112	122	121	---	---
LUNENBURG	118	100	89	84	72	68
VENETO	119	85	71	68	92	92
SALOP	120	122	127	120	---	---
LAZIO	121	73	64	61	79	95
UMBRIA	122	98	80	74	98	96
HERFRD-WORC	123	120	126	128	---	---
MARCHE	124	101	86	81	97	97
CLWD-DGP	125	124	131	132	---	---
N. IRELAND	126	128	133	137	96	98
PS VASCO	127	138	136	134	---	---
NAVARRA	128	137	137	136	---	---
RIOJA	129	133	129	124	---	---
BALEARES	130	127	118	112	---	---
ABRUZZI	131	125	112	109	101	99
MADRID	132	140	139	140	---	---
CATALUNA	133	139	140	139	---	---
CANTABRIA	134	142	143	143	---	---
MOLISE	135	129	124	118	106	105
ASTURIAS	136	144	142	142	---	---
IRELAND	137	135	138	141	100	101
SARDEGNA	138	130	128	125	99	100
BASILICATA	139	130	130	129	105	102
PUGLIA	140	132	132	131	103	103
ARAGON	141	141	141	140	---	---
CAMPANIA	142	134	134	132	102	105
SICILY	143	136	135	135	104	106
VALENCIA	144	145	145	145	---	---
CAST-LEON	145	146	146	146	---	---
CALABRIA	146	143	144	144	107	107
MURCIA	147	150	149	149	---	---
GALICIA	148	151	148	148	---	---
CANARIAS	149	147	147	147	---	---
ANAT. STERA	150	148	152	153	---	---
LA MANCHA	151	155	150	150	---	---
PELOPONS-ST	152	152	155	157	---	---
MACEDONIA	153	153	157	158	---	---
ANDALUCIA	154	157	151	151	---	---
THESSALONIKA	155	156	160	160	---	---
ANAT. MAKE.	156	149	153	154	---	---
LISBOA-VT	157	163	156	155	---	---
C-MELILLA	158	161	158	156	---	---
KRITI	159	154	159	159	---	---

REGION	1981	1984	1986	1987	1970	1977
EX-MADURA	160	160	154	152	---	---
IPEIROS	161	159	162	162	---	---
N.A. AIGAIOU	162	158	161	161	---	---
THRAKI	163	162	163	163	---	---
ALGRAVE	164	166	165	165	---	---
ALENTEJO	165	164	166	166	---	---
NORTE	166	165	167	167	---	---
CENTRO	167	167	164	164	---	---

APPENDIX 2.1

TOP 25 REGIONS ACCORDING TO PPS
LISTED FROM STRONGEST TO WEAKEST

1970	1981	1984	1986	1987
HAMBURG(G)	GRONING.(NL)	GRONING.(NL)	GRONING.(NL)	GRONING.(NL)
ILE-D-FRNC(F)	HAMBURG(G)	HAMBURG(G)	HAMBURG(G)	HAMBURG(G)
BREMEN(G)	ILE-D-FRNC(F)	ILE-D-FRNC(F)	ILE-D-FRNC(F)	ILE-D-FRNC(F)
STRKBNHVN(D)	BRUSSELS(B)	BRUSSELS(B)	LONDON(UK)	LONDON(UK)
DUSSELDORF(F)	VAL-D'AOS.(I)	VAL'D'AOS.(I)	VAL-D'AOS.(I)	VAL-D'AOS.(I)
OBERBAYERN(G)	LONDON(UK)	LONDON(UK)	BRUSSELS(B)	BRUSSELS(B)
STUTTGART(G)	BREMEN(G)	DARMSTADT(G)	DARMSTADT(G)	DARMSTADT(G)
DARMSTADT(G)	DARMSTADT(G)	BREMEN(G)	BREMEN(G)	BREMEN(G)
W.BERLIN(G)	OBERBAYERN(D)	OBERBAYERN(G)	HOVEDST.(D)	LIGURIA(I)
KARSRUHE(G)	LOMBARDY(I)	HOVEDST.(D)	LIGURIA(I)	LOMBARDY(I)
LUXEMBOURG(GD)	EMILA-RMGN(I)	STUTTGART(G)	OBERBAYERN(G)	OBERBAYERN(G)
GRONING.(NL)	HOVEDST.(D)	LOMBARDY(I)	LOMBARDY(I)	HOVEDST.(D)
KOLN(G)	LIGURIA(I)	LIGURIA(I)	STUTTGART(D)	EMILIA-RMGN(I)
HT-NRMNDY(F)	PIEDMONT(UK)	GRAMPIAN(UK)	EMILIA-RMGN(I)	STUTTGART(G)
S.HOLLAND(NL)	ANTWERPEN(B)	EMILIA-RMGN(I)	GRAMPIAN(UK)	GRAMPIAN(UK)
BRABANT(B)	W.BERLIN(G)	W.BERLIN(G)	W.BERLIN(G)	PIEDMONT(I)
MTTLFRNKN(G)	KARLSRUHE(G)	ANTWERPEN(B)	LUXEMBOURG(GD)	W.BERLIN(G)
LIGURIA(I)	DUSSELDORF(G)	PIEDMONT(I)	PIEDMONT(I)	LUXEMBOURG(GD)
N.HOLLAND(NL)	N.HOLLAND(NL)	DUSSELDORF(G)	ANTWERPEN(B)	ANTWERPEN(B)
ANTWERPEN(B)	HT-NRMNDY(F)	LUXEMBOURG(GD)	DUSSELDORF(G)	DUSSELDORF(G)
HANNOVER(G)	GRAMPIAN(UK)	MTTLFRNKN(G)	MTTLFRNKN(G)	MTTLFRNKN(G)
RHEIN-PF(G)	FRIULI(I)	N.HOLLAND(NL)	N.HOLLAND(NL)	FRIULI(I)
TUBINGEN(G)	BRABANT(B)	KARLSRUHE(G)	KARLSRUHE(G)	KARLSRUHE(G)
ARNSBERG(G)	ALSACE(F)	FRIULI(I)	FRIULI(I)	N.HOLLAND(NL)
LOMBARDY(I)	LUXEMBOURG(GD)	TUSCANY(I)	HT-NRMNDY(F)	TUSCANY

APPENDIX 2.2
BOTTOM 25 REGIONS ACCORDING TO PPS
LISTED FROM WEAKEST TO STRONGEST

1970	1981	1984	1986	1987
CALABRIA(I)	CENTRO(P)	CENTRO(I)	NORTE(P)	NORTE(P)
MOLISE(I)	THRAKI(GR)	ALGRAVE(P)	THRAKI(GR)	THRAKI(GR)
BASILICATA(I)	NORTE(P)	THRAKI(GR)	ALENTEJO(P)	IPEIROS(GR)
SICILY(I)	ALENTEJO(P)	NORTE(P)	ALGRAVE(P)	ALENTEJO(P)
PUGLIA(I)	EX-MADURA(S)	ALENTEJO(P)	IPEIROS(GR)	ALGRAVE(P)
CAMPANIA(I)	N.A.AIGA.(GR)	IPEIROS(GR)	C-MELILLA(S)	N.A.AIGA.(GR)
ABRUZZI(I)	IPEIROS(GR)	C-MELILLA(S)	N.A.AIGA(GR)	C-MELILLA(S)
IRELAND	C-MELILLA(S)	N.A.AIGA.(GR)	CENTRO(P)	CENTRO(P)
SARDEGNA(I)	ALGRAVE(P)	EX-MADURA(S)	EX-MADURA(S)	THESSAL.(GR)
UMBRIA(I)	KRITI(GR)	THESSAL.(GR)	THESSAL.(GR)	EX-MADURA
BRETAGNE(F)	ANAT.M.(GR)	KRITI(GR)	KRITI(GR)	KRITI(GR)
MARCHE(I)	ANDALUCIA(S)	MACEDONIA(GR)	MACEDONIA(GR)	MACEDONIA(GR)
LUXEMBOURG(B)	THESSAL.(GR)	ANDALUCIA(S)	ANDALUCIA(S)	PELEPON.(GR)
MIDI-PYR.(F)	MACEDONIA(GR)	LAMANCHA(S)	PELEPON.(GR)	ANAT.M.(GR)
LANG.-ROUS.(F)	PELEPON(GR)	PELEPON(GR)	LAMANCHA(S)	ANAT.S.(GR)
LIMOUSIN(F)	LAMANCHA(S)	ANAT.M.(GR)	ANAT.M.(GR)	ANDALUCIA(S)
N.IRELAND(UK)	CANARIAS(S)	ANAT.S.(GR)	ANAT.S.(S)	LAMANCHA(S)
NIEDERBYRN(G)	GALICIA(S)	GALICIA(S)	MURCIA(S)	CALABRIA(I)
LIMBURG(B)	ANAT.S.(GR)	CALABRIA(I)	CALABRIA(I)	MURCIA(S)
POIT.-CHRT.(F)	MURCIA(S)	MURCIA(S)	GALICIA(S)	IRELAND
LUNENBERG(G)	CALABRIA(I)	CANARIAS(S)	IRELAND	GALICIA(S)
NORTH(UK)	IRELAND	IRELAND	CANARIAS(S)	CANARIAS(S)
TRENTINO(I)	CAST-LEON(S)	LISBOA(P)	LISBOA(P)	LISBOA(P)
AUVERGNE(F)	LISBOA(P)	SICILY(I)	SICILY(I)	SICILY(I)
OBERPFALZ(G)	SICILY(I)	CAST-LEON(S)	CAST-LEON(S)	CAMPANIA(I)

APPENDIX 2.3
RANKING OF EUROPEAN REGIONS ACCORDING TO PPS

REGION	1981	1984	1986	1987	1970
Groningen	1	1	1	1	12
Hamburg	2	2	2	2	1
Ile de France	3	3	3	3	2
Brussels	4	4	6	6	--
Val. D'Aosta	5	5	5	5	26
London	6	6	4	4	--
Bremen	7	8	8	8	4
Darmstadt	8	7	7	7	8
Oberbayern	9	9	11	11	6
Lombardy	10	12	12	10	25
Emilia-Rom	11	15	14	13	55
Stuttgart	--	11	13	14	7
Hovedst	12	10	9	12	4*
Liguria	13	13	10	9	18
Piedmont	14	18	18	16	33
Antwerpen	15	17	19	19	20
W. Berlin	16	16	16	17	9
Karlsruhe	17	23	23	23	10
Dusseldorf	18	19	20	20	5
N-Holland	19	22	22	24	19
H-Normandy	20	30	25	26	14
Grampian	21	14	15	15	--
Friuli-V-G	22	24	24	22	62
Brabant	23	28	31	32	16
Alsace	24	26	28	30	34
Luxembourg-Gd	25	20	17	18	11
Rhein-PF	26	29	33	34	22
Mittelfranken	27	21	21	21	17
Toscana	28	25	26	25	70
Trentino-A-A	29	27	27	27	85
Drenthe	30	45	38	42	79
Z-Holland	31	34	41	47	15
Koln	32	31	30	33	13
Rhn-Alpes	33	36	37	38	30
Hannover	34	33	34	36	21
Chmp-Ardn	35	49	55	59	32
Hampshr	36	55	49	40	--
Utrecth	37	61	68	70	44
Zeeland	38	40	53	62	28
Frieburg	39	46	50	51	27
Veneto	40	48	47	41	80
Tubingen	41	42	45	46	23
Lazio	42	38	36	35	69
Arnsberg	43	50	51	52	24
Detmold	44	59	57	60	31
Brauncsh	45	39	39	39	36
Saarland	46	51	42	44	56
Alp C-d'azur	47	65	69	69	53
Cheshire	48	32	29	31	--
Berk-Oxf	49	35	35	29	--
Aquitaine	50	41	48	50	65

REGION(PPA)	1981	1984	1986	1987	1970
Bedfrd-Hrt	51	37	32	28	--
Umbria	52	62	58	56	
98Picardy	53	72	81	84	48
Frn-Cmte	54	71	72	74	57
Marche	55	68	66	66	96
W Vlaandrn	56	63	70	69	43
Centre	57	60	59	61	52
Lorraine	58	77	94	96	40
Vlaams	59	58	65	65	--
Munster	60	82	77	80	54
Cumbria	61	53	64	57	--
Avon	62	44	46	37	--
Oberfrkn	63	78	75	76	42
Schwbn	64	43	44	45	38
Bourgogne	65	80	78	81	61
Liege	66	73	76	77	41
Pays Loire	67	83	85	87	73
Kassel	68	64	61	63	59
V. Storebaelt	69	47	40	53	35
Borders	70	66	67	67	--
Highlands	71	88	91	91	--
Schl-Hols	72	76	80	82	50
Derby-Nott	73	79	74	75	--
Manchester	74	75	71	71	--
N-Pasdecalais	75	94	102	105	47
W-Midlands	76	69	60	65	45
Leice-Nhampt	77	57	54	58	--
E-Anglia	78	52	63	49	74
N-Brabant	79	85	82	89	39
PS-Vasco	80	113	112	102	--
O. Storebaelt	81	74	52	64	37
Overjsl	82	107	104	112	63
Navarra	83	112	115	107	--
Rioja	84	93	79	72	--
Weser-Ems	85	104	106	109	64
O-Vlaandrn	86	81	83	83	68
Baleares	87	54	56	48	--
Bsse-Normandy	88	70	86	86	78
S-Yorkshr	89	56	103	108	--
E-W Sussex	90	67	62	54	--
Essex	91	96	89	79	--
Bretagne	92	98	105	110	97
N-Yorkshr	93	56	43	43	--
Koblenz	94	97	100	98	60
Limburg	95	84	88	86	71
Gelderland	96	117	122	125	51
Midi-pyr	97	87	101	104	94
Trier	98	114	116	118	81
Unterfranken	99	90	87	90	66
Giessen	100	100	98	97	--
Dorset	101	86	90	78	--
Dumfries	102	103	96	94	--
N-Umberland	103	108	107	100	--
W-Yorkshr	104	89	73	73	--

REGION(PPA)	1981	1984	1986	1987	1970
Limburg	105	102	97	106	89
Cleve-Durh	106	115	117	114	--
Poit.-Chrntes	107	101	108	113	88
Auvergne	108	95	115	117	84
Kent	109	118	111	103	—
Lancashire	110	99	93	93	—
Nerseyside	111	111	99	99	—
Humberside	112	106	84	85	—
Niederbayern	113	91	92	92	90
Oberplz	114	116	113	116	83
Lincoln	115	92	95	95	—
Lang.-Rous.	116	109	124	127	93
Wallone	117	122	123	124	—
Friesland	118	129	131	136	82
Limousin	119	108	119	122	92
Abruzzi	120	123	120	120	101
Gwent-Gla	121	119	109	111	—
Madrid	122	126	125	121	—
Cornwall	123	110	110	101	—
Cataluna	124	125	127	123	—
Salop	125	124	121	119	—
Namur	126	131	135	135	77
Cantabria	127	136	136	130	—
Luxembourg	128	127	129	131	95
Hainaut	129	133	137	137	72
Herfrd-Worc	130	121	118	115	—
Asturias	131	138	132	129	—
Lunenberg	132	132	134	134	87
Molise	133	134	133	133	106
Clwd-Dgp	134	128	126	128	—
Aragon	135	130	128	126	—
N. Ireland	136	135	130	132	91
Sardegna	137	137	138	138	99
Basilicata	138	139	139	139	105
Valencia	139	142	142	141	—
Puglia	140	140	140	140	103
Campania	141	141	141	143	102
Sicily	142	144	144	144	104
Lisboa-VT	143	145	145	145	—
Cast-Leon	144	143	143	142	—
Ireland	145	146	147	148	100
Calabria	146	149	149	150	107
Murcia	147	148	150	149	—
Anat. Stera.	148	151	151	153	—
Galicia	149	150	148	147	—
Canarias	150	147	146	146	—
La Mancha	151	154	153	151	—
Pelopon-St	152	153	154	155	—
Makedonia	153	156	156	156	—
Thessal	154	158	158	159	—
Andalucia	155	155	155	152	—
Anat. Make.	156	152	152	154	—
Kriti	157	157	157	157	—
Algrave	158	166	164	163	—

REGION(PPA)	1981	1984	1986	1987	1970
C. Melilla	159	161	162	161	—
Ipeiros	160	162	163	165	—
N.A. Aigaiou	161	160	161	162	—
Ex-Madura	162	159	159	158	—
Alentejo	163	163	165	164	—
Norte	164	164	167	167	
Thraki	165	165	166	166	—
Centro	166	167	160	160	—

BIBLIOGRAPHY

Baster, N. (ed.), Measuring Development, London: Frank Cass, 1984, 2nd edition.

Bellini, Nicola, "The management of the economy in Emilia-Romagna: the PCI and the regional experience," in Robert Leonardi and Raffaella Y. Nanetti, (eds.) The Regions and European Integration: The case of Emilia-Romagna, London: Pinter Publishers, 1990, pp. 109-123.

Commission of the European Communities, First Periodic Report on the Social and Economic Situation of the Regions of the Community, Luxembourg: Office for Official Publications of the European Communities, 1981.

Commission of the European Communities, Second Periodic Report on the Social and Economic Situation of the Regions of the Community, Luxembourg: Office for Official Publications of the European Communities, 1984.

Commission of the European Communities, Third Periodic Report on the Social and Economic Situation of the Regions of the Community, Luxembourg: Office for Official Publications of the European Communities, 1987.

Commission of the European Communities, Fourth Periodic Report on the Social and Economic Situation of the Regions of the Community, Luxembourg: Office for Official Publications of the European Communities, 1991.

Eurostat, REGIO: Regional data bank, Luxembourg: Office for Official Publications of the European Communities, 1990.

Katzenstein, Peter J., Small States in World Markets: Industrial Policy in Europe, Ithaca and London: Cornell University Press, 1985.

Trigia, Carlo, Grandi Partiti e Piccole Imprese, Bologna: il Mulino, 1986.

Leonardi, Robert and Raffaella Y. Nanetti, (eds.) The Regions and European Integration: The case of Emilia-Romagna, London: Pinter Publishers, 1990.