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EUROPEAN COHESION POLICY AFTER 2006: SOME COMMENTS ABOUT CURRENT PROPOSALS

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Abstract:

EU regional policy is in a challenging and dynamic period of change. Not only are there significant administrative problems to overcome in both the current and the new Member States, but there is also a major ongoing debate about the reform of EU regional policy after 2006. Post 2006, the principal challenge concerns economic and social cohesion in an enlarged Union. Enlargement will lead to a severely unbalanced EU territory in terms of the widening disparities between Member States and regions. The degree to which EU regional policy can meet these challenges will be determined by budgetary constraints. The period of successive increases in EU regional policy ended at the Berlin Council in March 1999. Aspects of the current debate concern not only the EU regional policy budget for 2007-2013 but also the possible allocations. In this context, the paper has two main objectives: a) To identify regional disparities in the forthcoming enlarged Europe using multivariate statistical analysis techniques. b) To assess different proposals arising from the Commission open debate on future Cohesion Policy.

The data used in the analysis is Newcronos-REGIO database elaborated by EUROSTAT. As a result, a classification of all regions (NUTsII) in the EU-25 is obtained through factor and cluster analysis techniques. Results obtained show that regional disparities cannot be exclusively explained by GDP per capita. Other factors linked to the behaviour of the labour market and to the demographic characteristics of the territories are also of a great importance

Key words: Economic and Social Cohesion, Regional Policy, Cluster Analysis

1. Introduction and goals

The European Council of Copenhagen, held on December 12 and 13, 2002 heralded an unprecedented historical milestone, marked by the end of European Commission negotiations on membership for Cyprus, the Czech Republic, Hungary, Estonia, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia. These States will be embraced as member countries of the Union as of May 1, 2004, an achievement reflecting the determination of the people of Europe to join together in a Union which constitutes the driving force behind European stability and prosperity.

This enlargement represents a critical challenge for the fifteen EU member states, not merely in political terms but also from the economic standpoint. As regards the first point, the new countries will become fully-fledged members of community institutions, leading to a modification in the influence wielded by Mediterranean countries in the decision making process of the Commission. As to the second point, this enlargement will imply greater pressure on the community budget in its most relevant financial chapters: Common Agricultural Policy, and Economic and Social Cohesion Policy.

The goal of this paper is to establish a typology for European regions (NUTS 2), to assess the Commission proposal reflected in the Third Economic and Social Cohesion Report.

The methodology used is based on the application of exploratory multivariate statistical techniques, such as *cluster* analysis (using hierarchical and non-hierarchical procedures) as well as factor analysis, mainly, principal component analysis.

2. Territorial disparities in the enlarged European Union

To identify current regional imbalances within the enlarged EU, a set of variables has been used that aim to reflect socioeconomic aspects of the regions. These are practically the same as those considered in the various cohesion reports published by the European Commission, although the introduction of certain modifications has proved necessary. Information has been drawn from the Newcronos-REGIO database, supplied by the European Communities office for Statistics (EUROSTAT). The variables considered are shown in *Table 1*.

The code used for each of the NUTS2 statistical units is that established in EC Regulation Num. 1059/2003 of the European Parliament and Council (26 May 2003)¹.

Table 1. Variables used in the analysis

GDP pc	GDP per inhabitant (UE15=100) 2000
INCREGDP pc	GDPper inhabitant Difference between 2000 and 1995 (EU15=100)
EMPLAGR	Employment in Agriculture. Percentage of the total. 2001
EMPLIND	Employment in Industry. Percentage of the total. 2001
EMPLSER	Employment in the Service Sector. Percentage of the total. 2001
TUNEMR	Total Unemployment Rate. Percentage. 2001.
LTUNEM	Long Term Unemployment Rate. Percentage. 2001
FUNEM	Female Unemployment Rate. Percentage. 2001
YUNEM	Youth Unemployment Rate. Percentage. 2001
TEMPL	Total Employment Rate. Percentage of the population between 15 and 64. 2001
FEMPL	Female Employment Rate. Percentage of the population between 15 and 64. 2001
DENSI	Population Density. 2000
POPVAR	Population Variation between 1997 and 2000
BIRTHR	Birth Rate. 1999
POBU15	Population aged under 15. Percentage. 2000
DEPEND	Level of dependency. 2000 (over 65-year-olds/population between 15 and 64)
LOWQ	Low level of qualifications. Percentage. 2001
MEDQ	Medium level of qualifications. Percentage. 2001
HIGHQ	High level of qualifications. Percentage. 2001

Although it would have proved desirable to have wider information available, this has not been possible since the sources consulted either do not possess it or if they do, (for example, REGIO has other indicators which might prove to be of great interest for the study) such a large amount of data is missing that using it was not advisable.

The goal for constructing the data matrix was to obtain as complete information as possible, without any missing data either for the regions of the EU15 or for the regions of the accession countries. In fact, of the 211 regions belonging to the EU15 only four, corresponding to the French departments overseas, are excluded from the analysis since certain values are missing in some of the variables: *fr91 Guadeloupe (FR)*, *fr92 Martinique (FR)*, *fr 93 French Guyana (FR)* and *fr94 Reunion (FR)* and all 41 regions of the accession countries have been included with the exception of: *cy Cyprus* and *mt Malta* for the same reason. Thus, 246 NUTS2 regions of the enlarged European Union have been embraced. Given the available sources, we were also unable to achieve an even distribution of the information included in the matrix in terms of time, although this is not significant for the objective we are pursuing.

¹ See http://europa.eu.int/eur-lex/pri/es/oj/dat/2003/l_154/l_15420030621es00010041.pdf

Given the existence of important correlations among many of the variables considered, Principal Component Analysis was first performed, which provided factors (principal components) characterised by being (synthetic) inter-related indicators with a similar explanatory capacity to the original set of variables.

Thus, once the correctness of this type of factor analysis had been established by means of statistics and relevant tests (lineal correlation coefficient tests, Barlett test, KMO and MSA measurements, etc.), five components accounting for 77.56% of total variance were obtained after application of orthogonal rotation using the Varimax method.

Presented below is the description of the information gathered by these five indicators (components or factors) based on the analysis of saturations or factor loads indicating the correlation existing between the original variables and the factors obtained (*Table 2*)

F1 LABOUR MARKET FACTOR

This factor accounts for 27.76% of the variance and reflects variables related to the labour market. As can be seen, it offers high positive correlations with the variables that measure unemployment: *total unemployment rate*, *female unemployment*, *youth unemployment* and *long term unemployment* and also shows high negative correlations (in absolute terms), with those variables that measure employment: *total rate of employment* and *rate of employment among women*. It therefore contrasts those regions with high unemployment rates (serious structural problems) on the positive part of the factor axis as opposed to the high employment rates (efficient markets) on the negative part of the axis.

F2 ECONOMIES OF AGGLOMERATION FACTOR

This explains around 16.00% of variability and shows information provided by variables related to employment in the primary (agriculture) and tertiary (service) sectors, levels of qualifications, population density of the regions and GDP per inhabitant. Positive correlations can be seen with *employment in the service sector*, with *population density*, with *GDP per inhabitant* and *further qualifications* whereas *employment in agriculture* is negative. It thus compares those regions with a more highly qualified population, a higher population density and a greater GDP per inhabitant, variables that are closely linked to the existence of economies of agglomeration, to those which are less qualified and have higher levels of employment in the primary sector.

F3 DEFICIT IN QUALIFICATIONS FACTOR

This third factor accounts for 13.42% of variance due to the variables that measure the percentage of the population with medium or low levels of qualifications, a positive correlation existing with the variable of *low qualifications* and negative with *medium qualifications*. As a result, it shows a positioning of those regions with a greater deficit in the levels of education on the positive part of the axis and the regions with a medium deficit on its negative part.

F4 DEMOGRAPHIC FACTOR

The fourth factor, accounting for 12.76% of variance, reflects all of the indicators related to demographic aspects. In this instance, positive and high correlations can be seen with the variables of: *birth rate*, *population below 15 years of age* and *variation of population* and a high negative correlation (in absolute terms) with *level of dependency*. This is a factor that measures population dynamics and contrasts regions with a high level of young population with those where the population is older.

F5 DEVELOPMENT FACTOR (CONVERGENCE)

Finally, the fifth factor accounts for 7.63% of residual variance and offers a positive correlation with the variable that measures *increase in GDP per capita* and a negative correlation with *employment in industry*. It therefore contrasts regions that have undergone an increase in GDP per capita with those where a certain specialisation in industry is apparent and where no such increase has been experienced.

Table 2. Factor Loads

Principal Component Analysis. Rotation Method: Varimax Normalisation with Kaiser.

	F1	F2	F3	F4	F5
TOTAL UNEMPLOYMENT RATE	0.933	-0.101	-0.152	1.033E-02	7.140E-02
FEMALE UNEMPLOYMENT RATE	0.924	-0.116	7.707E-02	-6.284E-02	8.982E-02
YOUTH UNEMPLOYMENT RATE	0.920	-0.148	2.485E-02	4.781E-02	0.145
TOTAL EMPLOYMENT RATE	-0.908	0.141	-0.178	9.119E-02	0.145
FEMALE EMPLOYMENT RATE	-0.810	0.149	-0.431	9.260E-02	0.143
LONG TERM UNEMPLOYMENT RATE	0.653	-3.759E-02	-7.094E-02	-6.964E-02	-0.355
SERVICE SECTOR EMP.	-0.217	0.875	3.689E-02	5.813E-02	0.159
POPULATION DENSITY	0.119	0.718	7.051E-03	0.178	-8.419E-02
GDPpc 00 (EU15=100)	-0.502	0.667	0.147	-2.879E-02	-6.994E-02
HIGHER QUALIFIC.	-0.306	0.644	-0.224	-2.650E-02	0.382
AGRICULTURE EMP.	0.394	-0.616	0.210	-3.739E-02	0.374
LOW QUALIFIC.	0.180	-0.165	0.946	-7.329E-02	-3.261E-02
MEDIUM QUALIFIC.	-4.435E-02	-0.138	-0.911	9.200E-02	-0.152

POP. UNDER 15	-3.482E-02	-1.500E-04	-0.200	0.871	0.179
BIRTH RATE	-0.197	0.293	0.228	0.847	8.334E-02
DEPENDENCY LEVEL	-0.205	2.383E-02	0.351	-0.742	4.337E-02
POP.VAR. (97-00)	-0.329	0.105	0.407	0.536	0.154
GDP INCREASE (95-00)	-4.482E-02	-4.343E-02	1.753E-02	0.154	0.699
INDUSTRY EMP.	-7.876E-02	-0.533	-0.271	-8.410E-02	-0.589

Subsequently, once the factor scores of the enlarged 246 European Union NUTS2 regions had been calculated, a typology was defined for the regions, classifying them into conglomerates or clusters.

There are several methods or algorithms for forming clusters, which can be divided into two large groups: hierarchical and non-hierarchical methods. Both types of techniques have been used in this work in a complementary manner so as to benefit from the advantages each can provide and find the best solution.

Thus, a hierarchical analysis using the Ward method was initially performed. Among the hierarchical procedures available, this method is based on achieving the minimum increase in intra-group variance in the formation of groups, which is in line with the aim of seeking the most homogeneous groups.

This technique was applied with two goals in mind: firstly to decide the appropriate number of clusters for our objectives and obtain an initial classification and secondly to calculate the centroids, in other words the means of the variables in each of the clusters that will be used as the seeds of the following phase.

In the second phase a non-hierarchical (k-means) analysis was performed with the known seeds, which offered a significant advantage over the previous method, namely the absence of hierarchy and thus restriction. In other words, in non-hierarchical algorithms relocation of the elements throughout the successive iterations is possible. In this way, should an element (a region) be incorrectly allocated to a group at an initial stage, the algorithm would allow it to be moved to another more closely connected group.

By proceeding in this way, we were able to identify the 15 clusters into which the NUTS2 regions were classified. *Table 3* shows the most relevant information in each group: the size of the cluster (number of regions of which it is comprised) and the distance of each of the regions to the centre of the cluster (as a measure of the

adaptation of each of the regions to its group profile²). Moreover, the means and typical deviations of the factors in each group are shown as well as a relative measure of the group dispersion (MDG) with regard to its size³. From the analysis of this information a profile of each group is obtained according to its characteristics. The following conclusions can be drawn from the analysis performed:

CLUSTER 1 (3 regions) This cluster is made up of three clearly atypical regions (Brussels, Inner London and Ceuta and Melilla) which are quite different to the rest of those in the EU25. The regions in this group show a very high (mean) score in the second factor with values way above the overall mean in population density, a high percentage of population with a high level of studies, a great deal of employment in the service sector and little in agriculture, and, with the exception of the region of Ceuta and Melilla, a high GDP per capita. Although this group only comprises three regions, it has an extremely high relative group dispersion coefficient, mainly due to the long distance of Ceuta and Melilla from the centroid, indicating the existence of significant differences among these three regions in other variables (such as for instance the existence of differing unemployment rates). In this case, their classification in the same cluster is due to the difference, in comparison to other regions, rather than the similarities among them.

CLUSTER 2 (13 regions) This group is characterised through having a relatively high mean score in the second factor (high population density, high GDP per capita as well as intense specialisation in the service sector) in addition to recording a negative mean score in factor five, mainly due to a significant drop in GDP per capita, between 1995 and 2000. In this case, the relative dispersion coefficient of the cluster is striking, indicating relative heterogeneity among the regions in this group. The tremendous

² The profile or description of each cluster is performed using the centroids or mean values of the variables considered in the analysis for the regions in each group. To do this, those regions with the greatest values in distance to the centroid are not shown well by the information provided by the centroid (means of the variables). This fact should be taken into account in any individual analysis that may be carried out on each region. Moreover, observing these distances and comparing them with the distances existing between centroids provides us with an insight into the homogeneity or heterogeneity of the groups.

³ A measure of the homogeneity-heterogeneity of the cluster based on the Ward coefficient has been defined. Formally, this measure calculated from the factor scores (to avoid negative influence due to the different scale among the variables) is obtained as the quotient between the square root of the sum of the Euclidean distances (to the square) to the centroid, divided by the number of regions in the group. This definition prevents the different sizes of the groups obtained from affecting the measure of their heterogeneity. A comparison of the values in this statistical measure calculated for all the clusters is a key element in the identification of the most homogeneous and most heterogeneous clusters and also indicates that in the most heterogeneous groups significant differences will exist between the regions in some of the variables considered.

distance from the centroid of some of the regions such as Berlin (the furthest away), Hamburg, Corsica or Vienna is also worthy of special note.

CLUSTER 3 (26 regions) The regions in this cluster in general show medium values in all the variables, similar to the overall means in the EU25. The most salient feature may be that they have undergone a negative increase in GDP per capita, in the period taken as a reference, as well as unemployment rates (total, long term and female) below the overall means. The cluster dispersion coefficient is fairly low, denoting significant homogeneity in the regions comprising the group.

CLUSTER 4 (12 regions) This group is characterised by a fairly high mean score in factor two, including regions with high (mean) values in GDP per capita, in population density, medium-high levels of studies, high levels of employment in the tertiary sector and very little in the primary. They have also undergone an increase in GDP per capita and show levels of unemployment below the overall mean. With regard to the relative dispersion coefficient of the group, it can be seen that it is a cluster with certain differences among the regions. In this case, those which are furthest from the group mean are the Community of Madrid, Luxemburg and the South East region of Ireland.

CLUSTER 5 (44 regions) This is an extremely homogeneous group with a negative mean score in the first factor (labour market) which includes demographic variables. This group specifically includes some Nordic and British regions which are experiencing serious problems of depopulation.

CLUSTER 6 (32 regions) This is also an extremely homogeneous cluster with a negative score in factor five (convergence), indicating that its regions have undergone a fall in GDP per capita in the time lapse considered. This is despite the fact that it includes regions that are above the EU average. Most of these are in Germany, as a result of which their behaviour reflects the situation the country is experiencing at the moment.

CLUSTER 7 (11 regions) This is a small homogeneous group made up of nine German regions, one Swedish and one of the regions of the accession countries (Prague), showing highly negative values in the mean scores, both in factor three as well as four, mainly due to certain demographic difficulties (characterised by the fall in population through having a below average percentage of under 15-year-olds). These groups do not show any deficit in terms of levels of studies as they have the highest level of

population with medium level qualifications and the lowest number with the poorest level.

CLUSTER 8 (26 regions) This cluster, which contains eleven Spanish regions, is an extremely heterogeneous group characterised by its significant positive average score in factor three (deficit in qualification reflected by the high percentage of population with a low level of studies) and also by an extremely small negative average score in factor four (demographic factor), an indicator that reflects an ageing population. It can also be seen that these regions have a low population density, a GDP per capita below the EU25 average, a high level of specialisation in agriculture and above average unemployment levels. In this case, a significant group of Spanish and Greek regions are currently Objective 1 regions, although, in the former case, they will all lose this condition in the new period of planning 2007-2013, with the exception of Extremadura and Galicia which are likely to maintain this status in the future. Castilla La Mancha and Asturias will also continue to receive support, due to the statistical effect of enlargement.

CLUSTER 9 (12 regions) This group includes the three Spanish regions of the Canary Islands, Murcia and the Balearic Islands. It is a group with a very high mean score in the third component (with a significant deficit in education) and which also shows a high positive mean score in the demographic factor. As a result these are regions with a relatively young population, a birth rate above the EU25 average and which have undergone an increase in population. Moreover, in general these are regions in which the agricultural sector plays a key role. However, despite not being a numerous group, it does show high heterogeneity, with some of the regions very far away from the average profile previously described (Flevoland, Central Portugal or Northern Portugal)

CLUSTER 10 (7 regions) Together with the Italian Mezzogiorno regions, this group also includes the region of Andalusia. It is an extremely small but relatively heterogeneous cluster, characterised by a high mean score in factor one (labour market) and in factor three (deficit in qualifications). The regions comprising this group show high rates of unemployment, above the EU25 and a population with relatively few qualifications. In this case, it is precisely the region of Andalusia which is furthest from the centre, being different from the other regions in its group due to the increase it has undergone in GDP per capita, with a higher rate than the rest of the regions, which in some cases, such as Sicily and Sardinia, have recorded a slight drop.

CLUSTER 11 (11 regions) This is a fairly homogeneous group which includes Catalonia, together with other regions in Northern Italy. It shows (mean) negative scores both in factor four as well as five, in other words, on the one hand there are low birth rates, levels of dependency above the EU25 average, percentages of under 15-year-old population below those corresponding to the EU25, and on the other, they have experienced a fall in GDP per capita, in which the industrial sector plays a key role. Moreover, the positive and relatively high score in factor three indicates that these regions suffer a significant deficit in education. Once again, it is the Spanish region which is the furthest from the centroid with smoother (although also negative) mean scores in factors four and five, mainly due to a positive increase in GDP per capita and a birth rate and percentage of under 15-year-olds slightly higher than those characterising its group.

CLUSTER 12 (8 regions) This group contains five accession candidate regions, most of which are Nordic together with Finnish regions. Its main characteristic is the significant increase in GDP per capita, although it should also be pointed out that in 2000 this was below the GDP per capita corresponding to the EU25. These regions possess a highly skilled labour force.

CLUSTER 13 (9 regions) This cluster is also small and fairly homogeneous. Its main features can be summed up in the low negative score in component one and in the high positive score in factor five. They therefore have low unemployment rates and high employment rates as well as an extremely high GDP per capita in comparison to the EU25 average, together with an increase in this value between 1995 and 2000.

CLUSTER 14 (14 regions) This group is homogeneous and is made up of regions in the accession countries. It shows low negative mean scores in factors two and five. These regions are specialised in the industrial sector and record a mean GDP per capita value below the enlarged Union average together with a fall in this value in the period of reference (negative increase), a low population density, and a low percentage of population with high levels of studies.

CLUSTER 15 (18 regions) Finally, this group is slightly more heterogeneous than the five previous ones as it is made up solely of candidate regions. Its most striking feature is the positive mean score in factors one and four, a young population with high levels of unemployment and low negative mean scores in factors two and three, indicating the

significant weight of the agricultural sector, a GDP per capita below the EU25 average, although it has undergone an improvement (the increase in GDP per capita is positive and much higher than the overall average), low population density, together with a population with mainly medium levels of studies. Differences can also be observed within the regions in this group, reflected by the distances of some of the regions from the centre of the group (Lubelskie, Slaskie,...)

Table 3. Classification of the regions in the clusters

NUTS2		F1	F2	F3	F4	F5	DIST	
C1	be10 Bruxelles-Capitale	1.5	4.8	1.2	0.7	-1.9	1.84	
	es63_4 Ceuta y Melilla (ES)	3.1	3.2	1.4	2.7	-0.2	2.15	
	uki1 Inner London	1.0	5.9	0.5	2.2	0.4	1.90	
N=3	Cluster Mean	1.9	4.6	1.1	1.8	-0.5		
MDG	Cluster Std. Dev.	1.1	1.4	0.5	1.1	1.2		
5.8	TOTAL Mean (UE25)	0.0	0.0	0.0	0.0	0.0		
	TOTAL Std. Dev. (UE25)	1.0	1.0	1.0	1.0	1.0		
NUTS2		F1	F2	F3	F4	F5	DIST	
C2	be21 Antwerpen	-0.1	1.3	0.7	-0.2	-0.9	1.06	
	be32 Hainaut	1.3	0.9	0.7	0.1	-0.9	1.10	
	be33 Liège	0.8	1.0	0.8	0.1	-0.8	0.82	
	be35 Namur	0.9	1.1	0.7	0.5	0.0	1.09	
	de30 Berlin	1.2	3.0	-1.0	-0.9	-1.5	2.37	
	de50 Bremen	0.4	1.7	-0.6	-1.3	-0.8	1.44	
	de60 Hamburg	0.0	2.4	-0.4	-1.0	-0.9	1.62	
	gr30 Attiki	1.1	1.1	0.2	-0.2	-0.2	0.59	
	fr81 Languedoc-Roussillon	0.9	0.8	0.8	-0.1	0.7	1.50	
	fr82 Provence-Alpes-Côte d'Azur	0.8	1.2	0.7	0.0	0.2	0.91	
	fr83 Corse	1.3	1.0	1.3	-0.6	0.6	1.67	
	ite4 Lazio	1.3	1.3	0.9	-0.5	-1.0	0.99	
	at13 Wien	-0.1	2.4	-0.4	-0.4	-0.5	1.47	
N=13	Cluster Mean	0.7	1.5	0.3	-0.4	-0.5		
MDG	Cluster Std. Dev.	0.5	0.7	0.7	0.5	0.7		
2	TOTAL Mean (UE25)	0.0	0.0	0.0	0.0	0.0		
	TOTAL Std. Dev. (UE25)	1.0	1.0	1.0	1.0	1.0		
NUTS2		F1	F2	F3	F4	F5	DIST	
C3	be22 Limburg (B)	-0.5	0.1	0.7	0.4	-0.7	0.66	
	be34 Luxembourg (B)	0.0	0.7	0.9	0.9	0.1	1.14	
	fr21 Champagne-Ardenne	0.1	-0.3	0.5	0.6	-0.1	0.77	
	fr22 Picardie	0.4	-0.2	0.5	1.3	-0.9	1.07	
	fr23 Haute-Normandie	0.3	0.3	0.4	1.1	-0.5	0.80	
	fr24 Centre	-0.4	-0.3	0.4	0.2	-0.8	0.83	
	fr25 Basse-Normandie	0.0	-0.2	0.3	0.4	0.0	0.78	
	fr30 Nord - Pas-de-Calais	1.0	0.4	0.6	1.6	-0.7	1.64	
	fr41 Lorraine	-0.1	0.0	0.2	0.6	-1.0	0.67	
	fr42 Alsace	-0.8	-0.2	0.3	1.3	-1.0	0.82	
	fr43 Franche-Comté	-0.6	-0.5	0.4	0.7	-0.9	0.77	
	fr51 Pays de la Loire	-0.4	-0.3	0.4	0.9	-0.2	0.45	
	fr71 Rhône-Alpes	-0.3	0.2	0.1	0.8	-0.1	0.42	
	nl11 Groningen	-0.6	0.8	0.2	0.3	-0.4	1.01	
	nl12 Friesland	-0.7	-0.1	0.3	1.0	-0.2	0.39	
	nl13 Drenthe	-0.9	-0.2	0.4	0.9	-0.4	0.54	
	nl21 Overijssel	-1.0	-0.1	0.4	1.4	-0.2	0.84	
	nl22 Gelderland	-1.0	0.3	0.3	1.1	0.1	0.87	
	nl34 Zeeland	-0.9	0.1	0.4	0.4	-0.6	0.72	
	nl41 Noord-Brabant	-1.0	0.1	0.3	1.2	0.0	0.82	
	nl42 Limburg (NL)	-0.7	0.1	0.2	0.3	-0.2	0.74	
	at34 Vorarlberg	-1.1	-0.8	-0.2	1.2	-0.8	1.29	
	ukg3 West Midlands	0.1	1.1	-0.2	1.1	-0.8	1.42	
	ukn Northern Ireland	-0.1	0.2	0.0	1.8	-0.2	1.08	
	at33 Tirol	-0.7	-0.3	-0.3	0.6	-0.2	0.87	
	itd1_2 Trentino-Alto Adige	-1.0	-0.2	1.4	0.2	-0.6	1.36	
N=26	Cluster Mean	-0.4	0.0	0.3	0.9	-0.4		
MDG	Cluster Std. Dev.	0.5	0.4	0.4	0.4	0.4		
0.9	TOTAL Mean (UE25)	0.0	0.0	0.0	0.0	0.0		
	TOTAL Std. Dev. (UE25)	1.0	1.0	1.0	1.0	1.0		
NUTS2		F1	F2	F3	F4	F5	DIST	
C4	be24 Vlaams Brabant	-0.5	1.5	0.2	-0.4	0.9	1.28	
	be31 Brabant Wallon	0.3	1.6	0.3	0.5	1.0	0.77	
	es30 Comunidad de Madrid	0.3	1.2	0.9	-0.3	0.9	1.46	
	fr10 Île de France	0.0	2.1	0.2	1.3	-0.1	1.36	
	nl31 Utrecht	-1.0	1.4	0.3	1.3	1.1	0.88	
	nl32 Noord-Holland	-0.9	1.3	0.1	0.8	0.8	0.54	
	nl33 Zuid-Holland	-0.9	1.0	0.3	0.9	0.4	0.72	
	ukd5 Merseyside	0.6	1.5	-0.7	0.2	0.5	1.46	
	uki2 Outer London	-0.3	2.2	-0.3	1.3	1.0	1.15	
	ukd3 Greater Manchester	-0.5	1.0	-0.5	0.8	0.3	0.97	
	ie02 Southern and Eastern (Ireland)	-0.5	0.0	0.4	2.1	1.4	1.98	
	lu00 Luxembourg	-0.8	0.7	1.2	1.2	1.6	1.53	
	N=12	Cluster Mean	-0.3	1.3	0.2	0.8	0.8	
	MDG	Cluster Std. Dev.	0.5	0.6	0.5	0.7	0.5	
	1.7	TOTAL Mean (UE25)	0.0	0.0	0.0	0.0	0.0	
		TOTAL Std. Dev. (UE25)	1.0	1.0	1.0	1.0	1.0	
	NUTS2		F1	F2	F3	F4	F5	DIST
C7	de41_2 Brandenburg-Nordost	0.5	0.5	-1.3	-0.9	0.2	0.77	
	de80 Mecklenburg-Vorpommern	0.8	0.5	-1.6	-1.3	0.4	0.52	
	ded1 Chemnitz	0.5	0.1	-1.7	-2.0	-0.3	0.78	
	ded2 Dresden	0.6	0.6	-1.6	-1.7	0.2	0.16	
	ded3 Leipzig	0.7	0.8	-1.5	-1.7	-0.3	0.57	
	dee1 Dessau	1.1	0.3	-1.8	-2.0	-0.2	0.85	
	dee2 Halle	1.2	0.6	-1.8	-1.9	0.1	0.79	
	dee3 Magdeburg	0.9	0.3	-1.8	-1.6	0.4	0.52	
	deg0 Thüringen	0.4	0.2	-1.7	-1.6	0.3	0.42	
	se07 Mellersta Norrland	-0.5	0.7	-1.0	-1.5	0.0	1.21	
	cz01 Praha	-0.4	1.6	-1.5	-1.4	0.7	1.52	
N=11	Cluster Mean	0.5	0.6	-1.6	-1.6	0.1		
MDG	Cluster Std. Dev.	0.6	0.4	0.3	0.3	0.3		
0.7	TOTAL Mean (UE25)	0.0	0.0	0.0	0.0	0.0		
	TOTAL Std. Dev. (UE25)	1.0	1.0	1.0	1.0	1.0		
NUTS2		F1	F2	F3	F4	F5	DIST	
C8	gr11 Anatoliki Makedonia, Thraki	0.3	-1.7	1.5	-0.3	1.1	1.53	
	gr12 Kentriki Makedonia	0.9	-0.6	0.9	-0.1	0.7	1.23	
	gr13 Dytiki Makedonia	1.4	-1.0	1.0	-0.4	0.2	1.40	
	gr14 Thessalia	1.2	-0.9	1.2	-0.9	1.8	1.31	
	gr21 Ipeiros	1.4	-0.8	1.4	-1.3	1.0	0.94	
	gr22 Ionia Nisia	-0.2	-1.1	1.8	-1.0	1.9	1.53	
	gr23 Dytiki Ellada	1.1	-1.2	1.4	-0.6	0.9	1.15	
	gr24 Sterea Ellada	1.4	-1.1	1.3	-1.4	-0.4	1.59	
	gr25 Peloponnisos	0.6	-1.6	1.1	-1.9	2.3	1.96	
	gr43 Kriti	-0.1	-1.4	1.5	0.0	1.8	1.89	
	es22 Comunidad Foral de Navarra	-0.7	-0.4	1.1	-0.9	0.8	1.35	
	es23 La Rioja	-0.6	-0.8	1.4	-1.2	0.1	1.29	
	es42 Castilla-la Mancha	0.6	-0.8	1.8	-0.6	0.4	0.93	
	es43 Extremadura	1.7	-0.5	1.6	-0.6	1.5	1.52	
	es52 Comunidad Valenciana	0.1	-0.4	1.5	-0.1	0.1	1.40	
	itf2 Molise	1.4	-0.1	0.9	-1.2	-0.3	1.47	
	pt18 Alentejo	-0.4	-0.6	2.3	-1.7	0.2	1.60	
	gr41 Voreio Aigaio	0.6	-0.5	1.5	-1.5	1.0	0.44	
	es11 Galicia	0.8	-0.6	1.2	-1.9	0.9	0.68	
	es12 Principado de Asturias	1.0	0.0	1.0	-2.5	0.6	1.48	
	es13 Cantabria	0.7	-0.1	1.0	-1.5	0.9	0.65	
	es21 Pais Vasco	0.4	0.5	0.4	-1.5	0.5	1.37	
	es24 Aragón	-0.1	-0.3	1.2	-2.0	0.6	1.05	
	es41 Castilla y León	0.7	-0.2	1.0	-2.3	0.7	1.20	
	fr63 Limousin	-0.4	-0.1	0.2	-1.8	0.4	1.63	
itc3 Liguria	0.3	0.8	1.0	-3.0	-0.1	2.40		
N=26	Cluster Mean	0.5	-0.6	1.2	-1.2	0.8		
MDG	Cluster Std. Dev.	0.7	0.6	0.4	0.8	0.7		
2.1	TOTAL Mean (UE25)	0.0	0.0	0.0	0.0	0.0		
	TOTAL Std. Dev. (UE25)	1.0	1.0	1.0	1.0	1.0		
NUTS2		F1	F2	F3	F4	F5	DIST	
C9	pt16 Centro (P)	-1.4	-2.4	2.4	-0.4	0.3	2.51	
	gr42 Notio Aigaio	0.3	-0.2	1.7	0.6	0.9	1.58	
	es62 Murcia	0.3	-0.7	1.7	1.0	0.7	1.24	
	es70 Canarias (ES)	0.6	0.2	1.9	1.4	0.4	1.61	
	ie01 Border, Midland and Western	-0.3	-1.0	0.9	1.9	0.4	1.45	
	nl23 Flevoland	-1.3	-0.3	1.6	4.6	-0.3	3.46	
	es53 Illes Balears	-0.8	0.1	2.0	1.0	0.2	1.05	
	pt11 Norte	-1.0	-2.0	2.2	1.3	-1.7	2.06	
	pt17 Lisboa e Vale do Tejo	-0.6	-0.1	2.0	0.2	-0.5	1.28	
	pt15 Algarve	-1.0	-0.6	3.2	0.5	-0.5	1.55	
	pt20 Açores (PT)	-0.4	-1.4	2.5	1.9	-0.7	1.21	
	pt30 Madeira (PT)	-0.4	-1.2	2.1	1.2	-0.6	0.61	
	N=12	Cluster Mean	-0.5	-0.8	2.0	1.3	-0.1	
MDG	Cluster Std. Dev.	0.6	0.8	0.6	1.2	0.7		
3.5	TOTAL Mean (UE25)	0.0	0.0	0.0	0.0	0.0		
	TOTAL Std. Dev. (UE25)	1.0	1.0	1.0	1.0	1.0		
NUTS2		F1	F2	F3	F4	F5	DIST	
C10	es61 Andalucía	2.0	0.0	1.4	0.5	1.0	1.39	
	itf3 Campania	3.2	0.7	1.0	1.1	-0.7	1.35	
	itf4 Puglia	2.0	-0.1	1.4	0.3	-0.6	0.89	
	itf5 Basilicata	2.0	-0.5	1.1	-0.3	-0.7	1.22	
	itf6 Calabria	3.3	0.7	0.7	-0.3	0.5	1.24	
	itg1 Sicilia	2.9	0.7	1.3	0.3	-0.1	0.57	
itg2 Sardegna	2.5	0.5	1.1	-0.6	-0.3	0.79		
N=7	Cluster Mean	2.6	0.3	1.2	0.1	-0.1		
MDG	Cluster Std. Dev.	0.6	0.5	0.2	0.6	0.7		
1.4	TOTAL Mean (UE25)	0.0	0.0	0.0	0.0	0.0		
	TOTAL Std. Dev. (UE25)	1.0	1.0	1.0	1.0	1.0		

Table 3 continuation

NUTS2		F1	F2	F3	F4	F5	DIST
C5	fr26 Bourgogne	-0.1	0.0	0.3	-0.4	0.0	1.12
	fr52 Bretagne	-0.4	0.0	0.3	0.2	0.4	0.87
	fr53 Poitou-Charentes	-0.1	-0.2	0.4	-0.4	0.1	1.11
	fr61 Aquitaine	0.0	0.3	0.5	-0.4	0.4	1.22
	fr62 Midi-Pyrénées	0.0	0.4	0.3	-0.3	0.3	1.07
	fr72 Auvergne	0.0	0.0	0.1	-0.8	0.5	1.16
	uk11 West Wales and The Valleys	-0.4	0.0	-0.2	-0.1	0.3	0.46
	dk00 Denmark	-1.1	0.4	-0.4	0.6	0.6	0.79
	de21 Oberbayern	-1.0	0.5	-0.4	-0.2	0.1	0.63
	at11 Burgenland	-0.9	-0.9	-0.1	-0.8	0.0	1.35
	at12 Niederösterreich	-1.0	-0.8	-0.5	-0.3	0.7	0.95
	at21 Kärnten	-0.6	-0.5	-0.6	-0.3	0.0	0.83
	at22 Steiermark	-0.9	-0.9	-0.6	-0.5	0.1	1.13
	at31 Oberösterreich	-1.1	-0.9	-0.4	0.2	0.0	1.18
	at32 Salzburg	-1.1	-0.2	-0.4	0.5	0.3	0.78
	se02 Östra Mellansverige	-0.9	0.1	-0.8	-0.5	0.3	0.56
	se04 Sydsvetige	-0.7	0.3	-0.6	-0.5	1.0	0.75
	se09 Småland med öarna	-1.3	-0.5	-0.5	-0.4	-0.1	1.08
	se0a Västsverige	-1.0	0.1	-0.8	-0.4	0.9	0.71
	ukc2 Northumberland, Tyne and W	-0.2	0.6	-0.6	-0.2	0.3	0.86
	ukd2 Cheshire	-1.0	0.6	-0.7	0.2	0.8	0.77
	ukd4 Lancashire	-0.8	0.2	-0.7	0.3	-0.1	0.73
	uke1 East Riding and North Lincoln	-0.3	0.0	-0.7	0.1	0.3	0.55
	uke3 South Yorkshire	-0.3	0.3	-0.5	0.4	0.3	0.69
	uke4 West Yorkshire	-0.6	0.6	-0.4	0.9	0.2	1.13
	ukf1 Derbyshire and Nottinghamsh	-0.6	0.1	-0.4	0.3	0.2	0.50
	ukf2 Leicestershire, Rutland and N	-1.1	0.0	-0.5	0.8	0.3	1.01
	ukf3 Lincolnshire	-1.1	-0.1	-0.3	-0.3	0.7	0.46
	ukg1 Herefordshire, Worcestershire	-1.3	0.1	-0.6	0.1	0.8	0.68
	ukg2 Shropshire and Staffordshire	-1.0	-0.2	-0.5	0.4	0.5	0.63
	ukh1 East Anglia	-1.3	0.2	-0.5	0.1	1.0	0.84
	ukh3 Essex	-1.2	0.2	-0.5	0.5	1.0	0.90
ukj4 Kent	-1.1	0.2	-0.5	0.6	0.5	0.76	
ukk2 Dorset and Somerset	-1.4	0.1	-0.5	-0.8	1.1	1.16	
ukk3 Cornwall and Isles of Scilly	-0.8	0.0	-0.2	-0.6	1.4	1.08	
ukk4 Devon	-1.2	0.2	-0.6	-0.7	1.0	0.92	
ukl2 East Wales	-0.7	0.7	-0.2	0.3	0.3	0.77	
ukm1 North Eastern Scotland	-1.3	0.3	-0.7	0.3	0.0	0.89	
ukm2 Eastern Scotland	-0.7	0.8	-0.7	-0.2	0.8	0.83	
ukm3 South Western Scotland	-0.2	0.6	-0.5	0.0	0.6	0.78	
ukm4 Highlands and Islands	-0.8	0.0	-0.7	-0.2	0.5	0.32	
se08 Övre Norrland	-0.6	0.5	-1.1	-0.8	-0.2	1.21	
hu01 Közép-Magyarország	-0.3	0.3	-0.7	-0.8	0.3	0.92	
fi18 Etelä-Suomi	-0.4	-0.1	-0.5	-0.2	1.2	0.89	
N=44	Cluster Mean	-0.7	0.1	-0.4	-0.1	0.4	
MDG	Cluster Std. Dev.	0.4	0.4	0.3	0.5	0.4	
0.8	TOTAL Mean (UE25)	0.0	0.0	0.0	0.0	0.0	
	TOTAL Std. Dev. (UE25)	1.0	1.0	1.0	1.0	1.0	
NUTS2		F1	F2	F3	F4	F5	DIST
C6	be23 Oost-Vlaanderen	-0.5	0.4	0.6	-0.2	-0.7	1.11
	be25 West-Vlaanderen	-0.8	0.3	0.5	-0.5	-0.5	1.12
	ukd1 Cumbria	-0.7	0.1	-0.6	0.3	-0.3	0.77
	de11 Stuttgart	-1.0	-0.3	-0.4	0.2	-1.1	0.69
	de12 Karlsruhe	-0.8	0.2	-0.5	-0.3	-1.0	0.31
	de13 Freiburg	-0.9	-0.4	-0.4	0.1	-0.9	0.67
	de14 Tübingen	-1.0	-0.4	-0.4	0.5	-1.3	1.04
	de22 Niederbayern	-1.2	-0.8	-0.4	0.3	-1.4	1.25
	de23 Oberpfalz	-0.9	-0.7	-0.5	0.3	-0.8	1.03
	de24 Oberfranken	-0.8	-0.5	-0.6	-0.5	-1.3	0.72
	de25 Mittelfranken	-0.8	0.1	-0.5	-0.3	-0.7	0.42
	de26 Unterfranken	-0.8	-0.4	-0.6	0.0	-1.2	0.60
	de27 Schwaben	-1.0	-0.3	-0.4	0.2	-1.3	0.80
	de71 Darmstadt	-0.6	1.0	-0.4	-0.5	-0.7	1.03
	de72 Gießen	-0.4	0.2	-0.7	-0.3	-1.0	0.28
	de73 Kassel	-0.2	0.1	-0.7	-0.6	-1.2	0.60
	de92 Hannover	-0.3	0.5	-0.6	-0.6	-0.8	0.70
	de93 Lüneburg	-0.4	0.1	-0.3	0.3	-0.9	0.54
	de94 Weser-Ems	-0.3	-0.1	-0.4	0.7	-1.3	0.97
	dea1 Düsseldorf	0.0	0.8	-0.5	-0.7	-1.1	1.05
	dea2 Köln	-0.2	0.8	-0.3	-0.1	-1.3	0.87
	dea3 Münster	-0.1	0.1	-0.5	0.2	-1.4	0.73
	dea4 Detmold	-0.6	0.0	-0.5	0.1	-1.2	0.42
	dea5 Arnsberg	-0.1	0.2	-0.5	-0.4	-1.4	0.63
	deb1 Koblenz	-0.5	-0.1	-0.3	-0.2	-1.4	0.46
	deb2 Trier	-0.4	0.0	-0.3	-0.4	-1.0	0.31
	deb3 Rheinhessen-Pfalz	-0.4	0.0	-0.4	-0.3	-1.3	0.32
	dec0 Saarland	0.1	0.4	-0.7	-1.0	-1.6	1.26
	def0 Schleswig-Holstein	-0.3	0.6	-0.5	-0.2	-0.7	0.62
	ukc1 Tees Valley and Durham	-0.1	0.2	-0.5	0.5	-0.6	0.93
	de91 Braunschweig	0.0	0.1	-0.9	-0.7	-0.6	0.94
	se06 Norra Mellansverige	-0.6	0.1	-0.9	-1.2	-0.4	1.23
N=32	Cluster Mean	-0.5	0.1	-0.4	-0.2	-1.0	
MDG	Cluster Std. Dev.	0.3	0.4	0.3	0.4	0.3	
0.7	TOTAL Mean (UE25)	0.0	0.0	0.0	0.0	0.0	
	TOTAL Std. Dev. (UE25)	1.0	1.0	1.0	1.0	1.0	
NUTS2		F1	F2	F3	F4	F5	DIST
C11	es51 Cataluña	-0.4	-0.2	1.0	-0.6	-0.2	1.26
	itc1 Piemonte	-0.3	-0.3	1.1	-1.5	-1.5	0.41
	itc2 Valle d'Aosta	-0.8	0.2	1.6	-1.0	-1.5	0.80
	itc4 Lombardia	-0.5	-0.2	1.2	-0.6	-2.1	1.02
	itd3 Veneto	-0.8	-0.6	1.3	-0.6	-1.6	0.92
	itd4 Friuli-Venezia Giulia	-0.5	0.1	1.0	-1.9	-1.2	0.72
	itd5 Emilia-Romagna	-0.9	-0.4	1.2	-1.8	-1.0	0.71
	ite1 Toscana	-0.3	-0.2	1.3	-1.8	-0.8	0.77
	ite2 Umbria	-0.3	-0.2	0.9	-1.7	-1.1	0.62
	ite3 Marche	-0.6	-0.7	1.2	-1.3	-1.5	0.56
	itf1 Abruzzo	0.1	-0.3	1.3	-1.0	-1.4	0.67
N=11	Cluster Mean	-0.5	-0.2	1.2	-1.3	-1.3	
MDG	Cluster Std. Dev.	0.3	0.3	0.2	0.5	0.5	
0.7	TOTAL Mean (UE25)	0.0	0.0	0.0	0.0	0.0	
	TOTAL Std. Dev. (UE25)	1.0	1.0	1.0	1.0	1.0	
NUTS2		F1	F2	F3	F4	F5	DIST
C12	fi13 Itä-Suomi	0.5	0.0	-0.7	-0.8	1.3	0.82
	fi14 Väli-Suomi	-0.2	-0.3	-0.5	-0.1	1.2	0.94
	fi1a Pohjois-Suomi	0.3	0.1	-0.6	0.9	1.3	1.18
	ee Estonia	0.6	-0.4	-1.5	-0.4	0.9	0.70
	lt Lithuania	1.1	-0.1	-1.3	0.1	2.0	0.90
	lv Latvia	0.9	-0.7	-1.3	-0.6	1.1	0.81
	pl07 Mazowieckie	0.9	-1.0	-1.1	0.2	2.2	1.26
	sk01 Bratislavský	0.0	0.4	-1.6	-0.4	0.8	1.20
	N=8	Cluster Mean	0.5	-0.3	-1.1	-0.1	1.4
	MDG	Cluster Std. Dev.	0.5	0.5	0.4	0.5	0.5
	1.1	TOTAL Mean (UE25)	0.0	0.0	0.0	0.0	0.0
	TOTAL Std. Dev. (UE25)	1.0	1.0	1.0	1.0	1.0	
NUTS2		F1	F2	F3	F4	F5	DIST
C13	ukc1 Gloucestershire, Wiltshire and	-1.3	0.7	-0.6	0.3	1.1	0.94
	fi16 Uusimaa (suuralue)	-1.1	1.0	-0.1	1.1	2.2	0.97
	fi20 Åland	-1.8	0.0	0.0	0.1	3.2	1.50
	se01 Stockholm	-1.5	1.1	-0.5	0.5	2.9	1.00
	uke2 North Yorkshire	-1.2	0.3	-0.5	-0.3	1.6	0.88
	ukh2 Bedfordshire, Hertfordshire	-1.2	0.6	-0.6	1.0	1.3	0.97
	ukj1 Berkshire, Bucks and Oxfor	-1.5	0.7	-0.6	1.0	1.8	0.66
	ukj2 Surrey, East and West Susse	-1.4	0.8	-0.4	-0.3	2.2	0.71
	ukj3 Hampshire and Isle of Wight	-1.4	0.2	-0.7	0.2	1.9	0.48
	N=9	Cluster Mean	-1.4	0.6	-0.5	0.4	2.0
	MDG	Cluster Std. Dev.	0.2	0.4	0.2	0.5	0.7
1	TOTAL Mean (UE25)	0.0	0.0	0.0	0.0	0.0	
	TOTAL Std. Dev. (UE25)	1.0	1.0	1.0	1.0	1.0	
NUTS2		F1	F2	F3	F4	F5	DIST
C14	cz02 Střední Čechy	-0.3	-1.2	-0.8	0.1	-1.2	0.47
	cz03 Jihozápad	-0.4	-1.4	-1.3	0.1	-1.6	0.71
	cz04 Severozápad	0.6	-0.9	-1.2	0.7	-2.5	1.40
	cz05 Severovýchod	-0.4	-1.6	-1.3	0.4	-1.8	0.88
	cz06 Jihovýchod	0.0	-1.1	-1.4	0.1	-1.5	0.54
	cz07 Střední Morava	0.2	-1.3	-1.4	0.3	-2.0	0.83
	cz08 Moravskoslezsko	0.9	-0.7	-1.4	0.6	-2.5	1.64
	hu02 Közép-Dunántúl	-0.5	-1.8	-0.7	0.3	-0.6	1.13
	hu03 Nyugat-Dunántúl	-0.5	-1.4	-0.8	-0.3	-0.6	1.10
	hu04 Dél-Dunántúl	0.4	-0.9	-0.4	-0.1	-0.7	0.94
	hu05 Észak-Magyarország	0.7	-0.9	-0.5	0.3	-1.3	0.84
hu06 Észak-Alföld	0.6	-0.9	-0.2	0.8	-1.0	1.14	
hu07 Dél-Alföld	0.0	-1.3	-0.4	-0.2	-0.8	0.83	
si Slovenia	-0.1	-1.1	-0.8	0.0	-0.6	0.79	
N=14	Cluster Mean	0.1	-1.2	-0.9	0.2	-1.3	
MDG	Cluster Std. Dev.	0.5	0.3	0.4	0.3	0.7	
1.1	TOTAL Mean (UE25)	0.0	0.0	0.0	0.0	0.0	
	TOTAL Std. Dev. (UE25)	1.0	1.0	1.0	1.0	1.0	
NUTS2		F1	F2	F3	F4	F5	DIST
C15	pl01 Dolnoslaskie	2.3	-0.5	-1.4	0.3	0.5	1.26
	pl02 Kujawsko-Pomorskie	1.8	-1.3	-1.1	1.1	0.4	0.25
	pl04 Lubuskie	2.2	-0.7	-1.4	1.2	0.2	0.81
	pl05 Łódzkie	1.8	-1.1	-1.2	0.0	0.6	1.07
	pl08 Opolskie	1.5	-1.7	-1.4	0.6	0.2	0.68
	pl0b Pomorskie	1.4	-0.7	-1.0	1.4	0.4	0.74
	pl0c Slaskie	2.0	-0.7	-1.6	0.5	-1.1	1.79
	pl0e Warminko-Mazurskie	2.2	-0.9	-0.9	1.6	0.2	0.92
	pl0g Zachodniopomorskie	1.9	-0.4	-1.2	0.9	0.3	0.86
	sk02 Západné Slovensko	1.4	-0.9	-1.5	0.8	-1.0	1.55
	sk03 Stredné Slovensko	1.6	-1.0	-1.5	1.4	-0.9	1.38
sk04 Východné Slovensko	2.0	-0.7	-1.3	2.3	-0.6	1.78	
pl03 Lubelskie	1.1	-2.1	-0.8	0.7	2.1	2.04	
pl06 Malopolskie	0.9	-1.7	-1.0	1.2	1.0	1.15	
pl09 Podkarpackie	1.6	-1.9	-1.1	1.6	0.9	1.07	
pl0a Podlaskie	1.4	-2.0	-0.8	0.7	1.9	1.74	
pl0d Swietokrzyskie	1.8	-1.9	-0.9	0.6	1.3	1.30	
pl0f Wielkopolskie	1.4	-1.7	-1.2	1.3	0.9	0.80	
N=18	Cluster Mean	1.7	-1.2	-1.2	1.0	0.4	
MDG	Cluster Std. Dev.	0.4	0.6	0.3	0.6	0.9	
1.7	TOTAL Mean (UE25)	0.0	0.0	0.0	0.0	0.0	
	TOTAL Std. Dev. (UE25)	1.0	1.0	1.0	1.0	1.0	

From the analysis performed on the previous pages it may be concluded that:

- The situation which the European economy is currently experiencing, especially in countries such as France and Germany, is reflected in the behaviour of the European regions, as a group of regions situated above the mean GDP of the EU can be seen to be suffering from a significant deceleration in growth rate. This is mirrored in the loss of positions, with regard to the mean reference. This fact supports some European Commission proposals in the sense that the Union's future priority should be to ensure growth⁴.
- Likewise, it is also possible to identify a process of convergence of the less developed Spanish and Greek Mediterranean regions, brought about by the EU policy of Structural Funds⁵ and, given the variable used to measure convergence, GDP per capita, by the fall in population⁶, which, in agreement with the analysis performed, also accounts for the existing disparities in the EU.
- One problem which needs to be addressed in Europe is that of demographic ageing, as it is one which a wide number of regions, regardless of their structural characteristics are faced with. Nevertheless, if the clusters are sorted, significant differences can be observed.
- Clusters C7, C11 and C8, are those which suffer most from the problems of depopulation in the enlarged EU. Both group eleven (C11) as well as group eight (C8) make up an important number of Spanish regions. Together with those in cluster seven, are the regions of the former East Germany in addition to some from the accession countries (Nordic and Polish). Yet, if a general ranking of European regions is established, it should be stressed that the Spanish region of Castilla and León occupies together with Asturias, Aragon and Galicia one of the least

⁴ In October 2003 The Commission presented the report "A European initiative for growth. Investing in networks and knowledge for growth and employment". COM (2003) 579 final.

⁵ Some authors (Rodríguez-Pose y Fratesi, 2004, p. 109) suggest that regional imbalances have remained stable within the EU15 over the last few years, the Structural Funds having played a core role in this process. However, they question the ability of the less developed regions within the EU to reduce the gap that separates them from the central regions, since resources focus mainly on infrastructure and support for business to the detriment of other objectives with more important medium and long-term effects such as the development of human capital.

⁶ A large part of the interior of Spain, in particular both Castile regions as well as Extremadura have undergone apparent convergence. Their impoverished agricultural economies, which date from 1959, have today been transformed into diversified economies, more closely aligned to the national average in terms of production per capita, although obtaining these results has depended on population loss (Collantes y Gutierrez, 2003).

favourable positions, despite the fact that it will cease to be an Objective 1 region to become one of real convergence.

- Finally, it should be highlighted that significant differences also exist between the regions of the accession countries, although to a lesser extent than in the current regions of the EU15. Those regions in the enlarged Union all tend to be grouped in clusters (C14, C15 and C12). This fact might be conditioned by the methodology used in the drawing up of the statistics, regionalisation of national data, and even the inherent common identity of the regions that make up a country. It therefore seems reasonable that regions in one country should tend to join in a single group.

3. European Cohesion Policy in the face of EU enlargement

3.1. The Commission Proposal

The adoption of the Third Cohesion Report (European Commission, 2004), establishes new priorities for Cohesion Policy in an enlarged European Union, the main elements of the management system and budget availability. Although this paves the way for new discussion which will necessarily involve political negotiation, it doubtless constitutes a key reference point in determining the Commission's position.

The report outlines three clear priorities for Cohesion Policy: a) convergence, b) regional competitiveness and employment and c) territorial cooperation.

With regard to the issue of convergence, community intervention will focus on the least developed regions within the EU, those whose GDP per capita is below the EU average, Cohesion Policy objective being the reinforcement of all factors determining real convergence. In addition, the Commission proposes adopting a transitional system of support for all those regions whose GDP per capita is below 75% of the EU15 average, but who are above that figure when the reference is the EU25, known as the *statistical effect*, support which will be transitory and which will end in 2013.

Moreover, the Report recognises that all EU member states face crucial challenges such as adaptation to economic and social change, trade globalisation and the transition to an information and knowledge based economy. In addition, the EU must deal with an ageing population, workforce shortages in key sectors as well as problems of social inclusion.

In this case, the Commission proposes a two-fold approach for implementing Cohesion Policy outside of the less developed regions:

- a) Through regional programmes cohesion policy should support regions and help regional authorities to anticipate and promote economic change in urban, rural and industrial areas, thus strengthening competitiveness.
- b) Through national programmes, cohesion policy should help people anticipate and adapt to economic change, in line with the priorities of the European Employment Strategy, supporting policies aimed at achieving full employment, quality and productivity at work in addition to social inclusion.

With regard to cohesion policy management, the Commission stresses the need to overcome certain obstacles detected in the implementation of current programmes. The proposal suggests maintaining some of the principles of community intervention, currently in force, planning, partnership, co-financing and assessment, although it does recognise that cohesion policy in an enlarged EU may be strengthened through the introduction of the following reforms: a) adopting a strategic approach to planning, b) decentralisation of Member States' responsibilities, c) strengthening of transparency in intervention through strict monitoring mechanisms and d) simplification of management systems

Finally, as regards the financial resources foreseen for 2007-2013, the Commission has proposed in Financial Perspectives (Commission of the European Communities, 2004) devoting an amount equivalent to 0.41% of the GDP of the EU-27 (equivalent to 0.46% prior to transfer to the financial instrument for fisheries). In quantitative terms, overall financial endowment would amount to 344.9 billion euros, taking into account administrative expenses and the Solidarity Fund.

A proposal has been put forward for sharing the three priorities of the enlarged EU cohesion policy: a) 78% of these resources should be allocated to the priority of convergence, bearing in mind the accession countries' capacity of absorption which has been set at 4% of GDP, b) 18% will be devoted to financing the priority of regional competitiveness and employment, c) finally 4% of resources will be devoted to the priority of territorial cooperation.

Reaction to the Commission proposal was swift in coming at the recently held ECOFIN meeting, certain countries (United Kingdom, the Netherlands, Germany) questioning

the amount of resources set out in the proposal. Net contributors maintain the idea of a cutback in resources and focusing cohesion policy on accession countries⁷, foreshadowing what promises to be an arduous process of negotiation over the next year and a half.

3.2 An assessment of the proposal

After analysing the proposal put forward by the Commission, we now move on to an appraisal of it, assessing to what degree it includes approaches reflected in previous reports, without losing sight of the effects that this may have on the Spanish economy at the current time.

Firstly, it should be pointed out that certain ideas contained in the "Second Report on Economic and Social Cohesion" (European Commission, 2001) are ratified, specifically, with regard to those priorities which may be introduced, given that cohesion policy should focus on less developed regions and that criteria for inclusion will continue to be GDP per inhabitant, as well as maintaining the limit of 75% of GDP per inhabitant, with regard to eligibility for Objective 1. In any case, as was reflected in previous pages, regional disparities in the EU may be put down to additional factors linked to labour market forces, to the current lack of skilled labour, and the demographic forces of the various regions, which may question, from the technical standpoint, the appropriateness of this criteria of eligibility.

The distribution of financial resources proposed is in agreement with the need to focus support on accession countries, although it does reflect the proposal put forward in the *Second Report* (2003) that support for Objective 1 regions of current Member States should not be abruptly withdrawn, specifically from those with an increase in relative prosperity index in an enlarged European Union (statistical effect due to enlargement).

As regards the approach reflected in the "*Second Report on Cohesion*" in the sense that future cohesion policy should not focus exclusively on the less developed regions but should continue to address the problems as well as opportunities in urban areas undergoing economic reconversion processes or suffering from natural handicaps, in addition to the crossborder dimension, the *third report* highlights the need for a cohesion policy to focus on remedying development problems in regions with

⁷ This proposal was initially put forward by the Netherlands and means that future Cohesion Policy would not be applied on a regional nature and with regional objectives. The European Union would only have to intervene when the GDP per capita fell below 90% of the Community average (Cordero, 2002).

geographical handicaps, when underlining that “*allocation of resources to the priority of regional competitiveness and employment should take into consideration such circumstances, in an effort to promote more actions in these neglected areas, given the greater cost in public investment, in per capita terms*” .

Nevertheless, the development of this approach is strongly conditioned by the amount of financial resources proposed to promote the priority of “*regional competitiveness and employment*”, in the new planning period 2007-2013. The Commission proposes a precise figure which would be around 60 billion euros, without specifying the eligibility criteria⁸ which might be applied, nor the population that would be the object of assistance within this priority. Thus, the allocation to Member States is not specified, raising certain questions which will have to be debated in the near future: a) Are the current funds allocated to objective two and three a good starting point for negotiation? b) Which indicators might be used, GDP, employment, unemployment?

Despite the existence of a wide number of questions which are yet to be dealt with, what the “*Third Report on Cohesion*” does address is differential treatment for those regions which will cease to be Objective 1, through real convergence, by including a “*phasing-in*” period that will temporarily guarantee a higher level of support.

One of the most interesting proposals deals with the thematic concentration of intervention in the factors that determine competitiveness in regions. In the case of the objective of *convergence* the priorities established are the following: a) innovation and knowledge economy b) accessibility and services of general interest c) environment and risk prevention, d) education, employment and systems for social support and e) adaptation of public administration to the change. As regards the *priority of competitiveness and employment*, the approach is coincident, although particular attention is focused on adapting labour force, and particularly, on the development of learning strategies throughout life rather than the development of training systems.

Although the political debate is primarily concerned with the financial resources that countries and regions in the 15 country European Union will cease to receive as of 2006, the development of the previously mentioned thematic priorities on the part of the various countries in the Union will lead to a new generation of regional development policies, in which *qualitative* will acquire tremendous relevance.

⁸ Depending on the circumstances and institutional system of each country they may be defined as level NUTS I or NUTS II.

This approach is a demand since the challenge of economic and social cohesion must be seen together with the priority of *improved competitiveness*. In the Lisbon Council held in March 2000, the European Union set itself a strategic objective “*to become the most competitive and dynamic knowledge based economy in the world, able to sustain economic growth with more and better jobs and greater social cohesion*”.

Achieving the objectives of the “*Lisbon Agenda*” not only requires economic policy strategies (structural reform, employment) implemented at a national level, but also linking territorial aspects and above all cohesion policy to that strategy, since no inter-relation mechanism exists at the present moment (Bachtler and Wishlade, 2003, p.21).

Finally, from the Spanish viewpoint, some calculations estimate that this country may lose 30% of its Structural and Cohesion Funds after 2007, although these estimations should be taken with caution, due to the many issues that must be addressed in the course of the political debate.

Spain is likely to lose its Cohesion Funds, since it is above 90% of the community average in terms of income in statistical effect. Valencia, Castilla and León and the Canary Islands will cease to be Objective 1 to become “*Competitiveness*”; priority, while Asturias, Murcia, Ceuta and Melilla will be able to receive resources as part of the transitory support foreseen for regions obtaining above 75% of the EU average, due to the “*statistical effect*” of enlargement. Therefore only three Spanish regions will form part of the new priority of “*convergence*”, Andalusia, Extremadura and Galicia.

4.- Conclusions

The study performed has identified a typology of European regions within the EU25 through the use of exploratory multivariate statistical techniques, such as cluster analysis and factor analysis, particularly principal component analysis in order to carry out an assessment of the European Commission proposal put forward in the “*Third Report on economic and social cohesion*”.

The results obtained in the analysis indicate that regional disparities in the EU cannot be explained solely in terms of GDP per capita, but also by other factors linked to the behaviour of the labour market, levels of skilled labour and demographic features of the different regions concerned.

This fact highlights the need for future cohesion policy to give certain priority, as is reflected somewhat imprecisely in the third report on cohesion, to the demographic handicaps that exist in the European Union, given that certain studies performed (Garrido Yserte, 2002, p.252) would seem to indicate that the real process of convergence in some Spanish regions has been achieved due to there being gradually fewer inhabitants. Far from solving the problem of interterritorial imbalances in Spain, this may undermine a future convergence process, due to the role that agglomeration economies play in regional growth, as is highlighted in the analysis performed.

Territories cannot afford to lose more population without running the risk of damaging their structural base, condemned to a non-development that may persist, despite achieving clear improvements in productivity. This might also have serious implications for fulfilling certain economic policy objectives, such as maintaining natural space, rendering and management of public services and equal opportunities for the population, regardless of their geographical situation.

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