

COHESION POLICIES AND RURAL DEVELOPMENT POLICIES AT REGIONAL LEVEL IN THE ENLARGED EU

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ABSTRACT

The purpose of our analysis is to assess the impact in the UE25 at regional level (NUTS 2) of the cohesion policies (Ob.1 and 2) and of agricultural and rural policies (CAP) in the period 2000-2006. The study starts from a preceding analysis that had for object, among the others, the identification of the principals rural systems in the EU, taking into account the main socio-economic dynamics at territorial level. The results highlight that not always the Cohesion policies and the CAP measures have convergent objectives under the profile of the cohesion. The new CAP have a rather limited impact on regional income disparities and mainly the Pillar I measures acts against economic and social cohesion, in accordance the principles of Lisbon and Göteborg, since higher level of CAP expenditure are associated with more prosperous regions.

1) INTRODUCTION

Recently there has been growing interest for the research directed to the study of territorial differentiations of the agricultural and rural development, with a special concern to the long-term transformations. Indeed it is becoming more and more urgent to understand how the Regions are adjusting to the deep structural changes in progress, in particular to the measures introduced by the CAP reform of 2003 and the cohesion policies (Lisbon strategies).

The aim of the present work, that starts from the results obtained from a previous analysis at regional level for the UE-25 States, is to point out some methodological issues relevant in order (A) to identify the main rural systems in the enlarged Union, (B) to suggest some adjustments in the Middle Term Reform according to the dynamics in progress at territorial level.

In our work we start from some considerations:

1. The CAP can be seen as a measure with a long tradition in the maintenance of economic sustainability in Europe. In spite of since 1992 the CAP has increased its effects on cohesion, the CAP measures are mainly aimed to social sustainability for farmers, which much or more contribute to rural viability, not for other rural people. Besides the basic rationale of agricultural policies in EU Member States generates territorial and regional issues within a sector with pronounced geographical differentiations; the I Pillar measures, now dominated by the direct payments, are concentrated in the regions with highest level of socio-economic development;
2. Ten New Member States (NMS) acceded to the EU on 2004; this enlargement is unprecedented in its scope and diversity of countries. The effects of the EU enlargement require careful consideration; the analysis is complicated by the distorting impact of the CAP and the importance of the agricultural sector in the NMS. Implementation of the CAP in these countries has been fully felt after the transition period¹;
3. Cohesion is an important objective in the EU; the aim is to reduce the regional disparities through the concentration of the resources in the less developed areas. At the end of the new programming period 2007-2013, 85% of the resources will be allocated in the lowest income regions (52% in the new Member States). At the same time some data of new Member States for the agricultural sector (64% of agricultural workers and 41% of cereals) show how CAP direct aids can play an important role

¹ For the NMS a single area payment began at the time of the accession as a simple area payment, which has been replaced by the Single Farm Payment in 2007. There is no financial modulation in the NMS until their CAP 1support reaches 100 of the EU15 level in 2013. Direct payments are new instruments in many of the NMS. Countries were allowed to provide additional “top down” payments using national finances or EU rural development funds until 2006 to bring payments to NMS farmer closer to EU15 levels.

only for some farmers, but it emerges also the strong need for rural development measures (diversification of the activities in the rural world);

4. In budgetary terms, the financial perspectives show a major allocation for the cohesion policies (35% of EU total budget) and the reduction of the CAP measures from 40,4% to 36,5%. The main problem is related to financial sustainability of the new CAP; in 2009 the budget limits should be passed and then it will be necessary to debate it again altogether. Negotiations of the CAP Pillar I are based on objective criteria, while financial negotiations for the Pillar II leave more room.

In particular, our analysis contributes to answer to a question: how the rural policies can contribute to a new social sustainability at territorial level in the rural world and how the rural policies can be integrated in the cohesion policies, taking into account the differences in the natural resources availability, in the management methods, in the integration with the food chain, in the income levels and in the grade of environment preservation.

The analysis has been carried at regional level (NUTS2) in the enlarged EU-25. The source of the information are the Regio Data base, EU FADN, EU Rural Development Report 2007 and Cambridge econometrics. The analysis is based not only on the agricultural sector variables but also on other relevant parameters of the economics social and environmental background. Starting from a wide set of indicators which is assumed to be sufficient to describe the territorial systems in order to identify the methodology that better leads to the identifications of optimal territorial segmentations, we utilize the multivariate statistics analysis. This methodology consists in the application of Principal Component Analysis (PCA) to the constructed database, that allows to synthesise such a set into a reduced number of uncorrelated components; afterwards a Cluster Analysis (CA) is carried on with the component identified in the previous step.

In the Section 3, the results of the multivariate analysis and the study of structural funds (Ob1 and 2) at territorial level, allow to evaluate the impact of the CAP measures for the period 2007-2013, above all the direct payments, on the process of economic and territorial cohesion of the European regions. Particular attention is paid to the evaluation of the impact of the measures of rural development, since the impact of CAP direct payments on income levels seems to contribute to a limited extent to the reduction of the territorial disparities.

2) THE MAIN AGRICULTURAL AND RURAL SYSTEMS IN THE ENLARGED EU

In this part the aim is to evaluate how territorial systems change within the European scenario based on the profound reforms of structural and agricultural policies introduced in recent years.

In the constantly fluctuating EU scenario we need to identify an analytical model that can be used for the interpretation of the territorial articulation of rural development, not only with respect to the dynamics existing in the single socio-economic contexts, but also to their susceptibility to the deep changes engendered by institutional reforms. This model must provide a key for the interpretation of the main territorial differences, in support of policy-makers' strategies during a phase of deep transformations of the rural world.

The analytical instruments must satisfy certain requirements:

- A) the future repeatability of the research, for the *in itinere* and *ex post* monitoring of the effectiveness and efficiency of the adopted measures, as well as of the unfolding of processes that are independent from the public measures;
- B) the comparison with other national and EU contexts, thus providing a reliable guide for the policy measures directed at the competitiveness or gaps within the single systems;
- C) though scientifically rigorous, a sufficiently flexibility, so that they can be adapted to the mosaic of current situations and to the consequent agricultural policy demands;
- D) the applicability to different territorial levels, so as to satisfy different agricultural policy demands.

As regards the indicators, the heterogeneity of the situations found in the rural world, as well as the new roles played by agriculture, make selecting the indicators a complex operation. Their number must be limited because of the scarcity of available sources, mainly in NMS, and because of the difficulties connected with their interpretation, though the statistical techniques adopted can provide a valid instrument of selection and simplification. A more detailed discussion about the choice of indicators is reported in Mazzocchi and Montresor (2000) and in Montresor (2002). These indicators represent a suitable analytical basis, as they are capable of appraise (1) the level of agricultural development as well as other development characteristics; (2) the main demographic and social trends; (3) agricultural concentration and specialisation and finally (4) a tentative measurement of the degree of integration between farming and the food industry.

The PCA was applied to the initially values of the variables, allowing these initial variables to be reduced to a smaller set of new variables, defined as principle components, uncorrelated between them. After having provided a brief description of the identified components, highlighting the important variables among them, the CA was applied.

As a first step, a PCA was carried out on the 26 indicators (Table 1) for the EU regions. Eight principal components were retained. They explain more than 70% of the total original variability.

Based on the above explanation, it is possible to quantify the relevance of the original indicators in the extracted principal components. This points out which are the most relevant indicators in determining the difference between the regions in the sample, once the

correlation between the principal components and the scale differences have been eliminated through the PCA.

Table 1 - Variables considered in the PCA of the EU-25 regions

Variable	Description	Source	Year range
SOCIO-DEMOGRAPHICS			
<i>Popden</i>	Population density	REGIO	2002
<i>Ageing</i>	Ageing index	REGIO	2001
<i>Depend</i>	Dependency ratio	REGIO	2001
ECONOMICS			
<i>Female</i>	Female unemployment ratio	REGIO	2003
<i>Unempl</i>	Unemployment ratio	REGIO	2003
<i>GDP</i>	Per capita GDP	REGIO	2002
<i>Empagr</i>	Employees in Agric (% total)	REGIO	2001-2000
<i>Empter</i>	Employees in Tertiary (% total)	REGIO	2001-2000
<i>Empine</i>	Employees in Industry (% total)	REGIO	2001-2000
<i>Ltunem</i>	Long term unemployment rate	REGIO	2003
AGRICULTURE			
<i>Agriculture – structural</i>			
<i>UAAtot</i>	Uaa	REGIO	
<i>Land allocation</i>			
<i>Cereals</i>	% UAA under cereals	REGIO	2002-2000
<i>Vine</i>	% UAA under vineyards	REGIO	2002-2000
	% UAA under (other) permanent crops - EXCLUDING		
<i>Permcrops</i>	FRUIT	REGIO	2002-2000
<i>Orchards</i>	% UAA under orchards	REGIO	2002-2000
<i>Fallows</i>	% UAA non cultivated for various reasons	REGIO	2002-2000
<i>Livestock</i>			
<i>Shegoa</i>	Sheeps and goats per ha UAA	REGIO	2002-2000
<i>Pigs</i>	Pigs per ha UAA	REGIO	2002-2000
<i>Poultr</i>	Chickens per ha UAA	REGIO	2002-2000
<i>Milk</i>	Milk cows per ha UAA	REGIO	2002-2000
<i>Cow</i>	Cows per ha UAA	REGIO	2002-2000
<i>Beefor</i>	Beef per ha of UAA under forage	REGIO	2002-2000
<i>Milkow</i>	Diary cow on total cow		
<i>Productivity</i>			
<i>Awuint</i>	AWU per 100 ha of UAA	REGIO	2002-2000
ENVIRONMENT			
<i>Woods</i>	Woodlands (% of total agric. Area)	REGIO	2002-2000
<i>Livint</i>	Bovine heads, sheeps and goats per ha UAA	REGIO	2002_2000

At first glance, an interpretation of the factor loading of the eight extracted PC, considering the sign and relevance of the factor loadings (above 0.5 in absolute value), can be as follows (Table 2):

1. *Low Socio-Economic Level*, characterized by low levels of GDP, which are linked to structural problems such as the unemployment rate (both general and over long term). Significant female employment rates working as well as substantial percentage of employees in agricultural and industrial sectors at the expense of the tertiary sector.

2. *Livestock*, wraps up the main variables tied to cow, pig, and poultry. Significant values tied to population density and the female employment rates.
3. *Vineyard*, presents important values linked to agricultural areas reserved for vineyard production; fruits, permanent crops, and cattle/hectare.
4. *Permanent Crops*, permanent crops have an important role, low values correspond to grains and livestock. Significant values of unemployment rate and female employment rates.
5. *Bovine Cattle*, frequently characterized of important values linked to cattle.
6. *Density and unemployment*, encompasses areas of high density levels, but also with significant levels of long term unemployment. Significant amount of lands dedicated to cereals.
7. *Total dependency*, refers to areas with low density levels, with a population but high dependency values. High values linked to UAA, not oriented towards fruits.
8. *Density of rural population*, includes areas with high density but also significant values of UAA and low rates of aging.

Table 2 - Factor loadings for first-stage PCA

Variables	Prin1	Prin2	Prin3	Prin4	Prin5	Prin6	Prin7	Prin8
<i>Popden</i>		5.50				14.57	-6.62	20.36
<i>Ageing</i>								-8.12
<i>Depend</i>							16.34	
<i>Female</i>	6.07	6.36		9.09				
<i>Unempl</i>	7.76			7.04				
<i>GDP</i>	-10.09							
<i>Empagr</i>	9.60							
<i>Empter</i>	-12.92							
<i>Empind</i>	7.83			-6.60				
<i>Ltunem</i>	5.17					15.47		
<i>UAA</i>					-5.46		12.24	16.31
<i>Cereals</i>				-12.15		13.09		
<i>Vine</i>			18.79					
<i>Permcrops</i>			10.79	9.52				-8.98
<i>Orchards</i>			7.03		5.20	-7.23	-13.35	
<i>Fallows</i>						-11.79	-6.89	8.42
<i>Shegoa</i>					-10.29			-6.16
<i>Pigs</i>		12.64						
<i>Poultry</i>		7.19	7.22		-5.75			
<i>Cow</i>		8.34			8.81			
<i>Milk</i>		14.02			7.97			
<i>Awuint</i>	8.15							
<i>Livint</i>			11.87	-12.40	14.24		6.17	
<i>Milkow</i>		10.44						
<i>Beefor</i>				-14.59	11.00		8.49	
<i>Woods</i>	6.67					-7.10		

Cluster analysis led to the identification of 12 first-stage clusters. In order to obtain clusters that contain a significant (but not in the statistical sense) number of regions, according to the

output of the SAS routine, we decided to merge the clusters with only one region to the statistically nearest cluster.

Table 3 - Clusters

Code	Regions	Cluster	Code	Regions	Cluster	Code	Regions	Cluster
be21	ANTWERPEN	1	de71	DARMSTADT	4	pt11	NORTE	9
be22	LIMBURG	1	de72	GIESSEN	4	pt16	CENTRO	9
be23	OOST-VLAANDEREN	1	de73	KASSEL	4	pt17	LISBOA E VALE DO TEJO	9
be25	WEST-VLAANDEREN	1	de8	MECKLENBURG-VORPOMMERN	4	pt18	ALENTEJO	9
be33	LIEGE	1	de91	BRAUNSCHWEIG	4	pt15	ALGARVE	9
de13	FREIBURG	1	de92	HANNOVER	4	pt30	MADEIRA	9
de14	TÜBINGEN	1	de93	LÜNEBURG	4	be24	VLAAMS BRABANT	11
de21	OBERBAYERN	1	de94	WESER-EMS	4	be31	BRABANT WALLON	11
de22	NIEDERBAYERN	1	dea1	DÜSSELDORF	4	be34	LUXEMBOURG	11
de27	SCHWABEN	1	dea2	KÍLN	4	be35	NAMUR	11
deb2	TRIER	1	dea3	MÜNSTER	4	Dk00	DANMARK	11
es11	GALICIA	1	dea4	DETMOLD	4	es24	ARAGON	11
es12	PRINCIPADO- ASTURIAS	1	dea5	ARNSBERG	4	es41	CASTILLA Y LEON	11
es13	CANTABRIA	1	deb1	KOBLENZ	4	fr21	CHAMPAGNE-ARDENNE	11
itc2	VALLE D'AOSTA	1	deb3	RHEINHESSEN-PFALZ	4	fr22	PICARDIE	11
itd1	ALTO-ADIGE	1	Dec	SAARLAND	4	fr23	HAUTE-NORMANDIE	11
nl11	GRONINGEN	1	Ded	SACHSEN	4	fr24	CENTRE	11
nl12	FRIESLAND	1	dee1	DESSAU	4	fr25	BASSE-NORMANDIE	11
nl13	DRENTHE	1	dee2	HALLE	4	fr26	BOURGOGNE	11
nl21	OVERIJSEL	1	dee3	MAGDEBURG	4	fr41	LORRAINE	11
nl22	GELDERLAND	1	Def	SCHLESWIG-HOLSTEIN	4	fr43	FRANCHE-COMTE	11
nl23	FLEVOLAND	1	Deg	THÜRINGEN	4	fr51	PAYS DE LA LOIRE	11
nl31	UTRECHT	1	gr11	ANATOLIKI MAKEDONIA	4	fr52	BRETAGNE	11
nl32	NOORD-HOLLAND	1	gr12	KENTRIKI MAKEDONIA	4	fr53	POITOU-CHARENTES	11
nl33	ZUID-HOLLAND	1	gr13	DYTIKI MAKEDONIA	4	fr61	AQUITAINE	11
nl41	NOORD-BRABANT	1	es21	PAIS VASCO	4	fr62	MIDI PYRENEES	11
nl42	LIMBURG	1	es22	COMUNIDA F. DE NAVARRA	4	fr63	LIMOUSIN	11
at21	KÄRNTEN	1	es30	COMUNIDAD DE MADRID	4	fr71	RHONE-ALPES	11
at22	STEIERMARK	1	es51	CATALUNA	4	fr72	AUVERGNE	11
at31	OBERÍSTERREICH	1	es53	ISLAS BALEARES	4	Ie	IRELAND	11
at32	SALZBURG	1	fr10	ILE DE FRANCE	4	nl34	ZEELAND	11
at33	TIROL	1	fr30	NORD - PAS-DE-CALAIS	4	at12	NIEDERÍSTERREICH	11
at34	VORARLBERG	1	fr42	ALSACE	4	Fi	FINLAND	11
pt20	ACORES	1	itc1	PIEMONTE	4	se01	STOCKHOLM	11
Ukf	EAST MIDLANDS	1	itc4	LOMBARDIA	4	se02	ÍSTRA MELLANSVERIGE	11
Ukk	SOUTH-WEST UK	1	itd3	VENETO	4	se04	SYDSVERIGE	11
es23	LA RIOJA	2	itd4	FRIULI-VENEZIA GIULIA	4	se06	NORRA MELLANSVERIGE	11
es42	CASTILLA-LA MANCHA	2	itd5	EMILIA-ROMAGNA	4	se07	MELLERSTA NORRLAND	11
es43	EXTREMADURA	2	ite1	TOSCANA	4	se08	ÍVRE NORRLAND	11
es61	ANDALUCIA	2	ite2	UMBRIA	4	se09	SMALAND MED ÍAMA	11
gr14	THESSALIA	2	ite3	MARCHE	4	se0a	VÄSTSVRIGE	11
gr21	IPEIROS	2	ite4	LAZIO	4	Ukc	NORTH-EAST UK	11
gr22	IONIA NISIA	2	itf1	ABRUZZO	4	ukd	NORTH-WEST UK	11
gr23	DYTIKI ELLADA	2	itf2	MOLISE	4	Uke	YORKSHIRE - HUMBER	11
gr24	STEREA ELLADA	2	cz02	STREDNÍ CECHY	5	ukg	WEST MIDLANDS	11
gr25	PELOPONNISOS	2	cz03	JIHOZÁPAD	5	ukh	EASTERN UK	11
gr30	ATTIKI	2	cz04	SEVEROZÁPAD	5	Ukj	SOUTH-EAST UK	11
gr41	VOREIO AIGAIO	2	cz05	SEVEROVÝCHOD	5	Ukl	WALES	11
gr42	NOTIO AIGAIO	2	cz06	JIHOVÝCHOD	5	ukm	SCOTLAND	11
gr43	KRITI	2	cz07	STREDNÍ MORAVA	5	ukn	NORTHERN IRELAND	11
fr81	LANGUEDOC-ROUSSILLON	2	cz08	MORAVSKOSLEZKO	5	lt0	LITHUANIA	12
fr82	PROVENCE-ALPES-C. D'AZUR	2	ee0	ESTONIA	5	pl11	LÓDZKIE	12
fr83	CORSE	2	lv0	LATRIA	5	pl12	MAZOWIECKIE	12
itc3	LIGURIA	2	hu10	KÓZÉP-MAGYARORSZÁG	5	pl21	MALOPOLSKIE	12
itf3	CAMPANIA	2	hu21	KÓZÉP-DUNÁNTÚL	5	pl22	SLASKIE	12
itf4	PUGLIA	2	hu22	NYUGAT-DUNÁNTÚL	5	pl31	LUBELSKIE	12
itf5	BASILICATA	2	hu23	DÉL-DUNÁNTÚL	5	pl32	PODKARPACKIE	12
itf6	CALABRIA	2	hu31	ÉSZAK-MAGYARORSZÁG	5	pl33	SWIETOKRZYSKIE	12
itg1	SICILIA	2	hu32	ÉSZAK-ALFÖLD	5	pl34	PODLASKIE	12
itg2	SARDEGNA	2	hu33	DÉL-ALFÖLD	5	pl41	WIELKOPOLSKIE	12
cz01	PRAHA	4	sk01	BRATISLAVSKÝ KRAJ	5	pl42	ZACHODNIOPOMORSKIE	12
at11	BURGENLAND	4	sk02	ZÁPADNÉ SLOVENSKO	5	pl43	LUBUSKIE	12
be32	HAINAUT	4	si0	SLOVENIA	5	pl51	DOLNOSLASKIE	12
de11	STUTTGART	4	cy0	CYPRUS	7	pl52	OPOLSKIE	12
de12	KARLSRUHE	4	mt0	MALTA	7	pl61	KUJAWSKO-POMORSKIE	12
de23	OBERPFALZ	4	es52	COMUNIDAD VALENCIANA	9	pl62	WARMINSKO-MAZURSKIE	12
de24	OBERFRANKEN	4	es62	REGION DE MURCIA	9	pl63	POMORSKIE	12
de25	MITTELFRANKEN	4	es70	CANARIAS	9	sk03	STREDNÉ SLOVENSKO	12
de26	UNTERFRANKEN	4	itd2	TRENTINO	9	sk04	VÝCHODNÉ SLOVENSKO	12
de4	BRANDENBURG	4						

The main territorial systems in the enlarged EU can be described as follows (Tables 3, 4 and Figure 1)):

- *Territorial Systems with the highest levels of development (cluster 1)*: the majority of regions belonging to this group are from Belgium, Holland, and Austria (almost 7% of total areas, but over 21% of the GDP). They have a high demographic density. Agriculture is not particularly relevant for either employment or income. These territories nevertheless compete in an important way to the European agricultural production with 19% of cows (primarily milk cows).
- *Mediterranean Systems with a low level of development and with agriculture playing an important role (cluster 2)*: southern regions of Italy, Spain, and Greece fall into this category, which is characterized by low GDP per capita. Nonetheless, this GDP per capita is still higher than that of the NMS. Agriculture represents an important sector for employment (almost 10% of total workers); there are high rates of aging. The prevailing productions are intensive: vineyards (44% of the total) and also grain cultivation is widespread. Gaps in development make evident the high rates of unemployment in the long term.
- *Continental Systems with a high level of development and both intensive and extensive agriculture (cluster 4)*: some German regions and Northern Italian regions (15.6% of total areas) fall into this category, which is densely populated. Especially in the Italian regions there is a link between the continental and Mediterranean productions. Cereals (over 22% of the total), vineyards (18.5%), milk cows, and pigs are the main products.
- *Systems in the NMS with large gaps in socio-economic development (cluster 5)*: mainly regions in Czech Republic and Hungary, in which agriculture doesn't play a major role for employment even though workers represent over 11% of the EU total. Cereals and livestock (cows, pigs, and poultry) are important.
- *Mediterranean Systems in the NMS (Cluster 7)*: Cyprus and Malta play a very minor role in agriculture and rural development within the European scenario.
- *Mediterranean Systems with an average level of development and intensive agriculture (cluster 9)*: this includes some regions in Spain and Portugal with an elevated population density. The agricultural sector is based on fruits and vegetable production.
- *Continental Systems with an average level of development and primarily extensive agriculture (cluster 11)*: These systems are comprised by the majority of French, English, and Swedish regions. This category includes a large amount of the European territory (almost 43%) and 24% of the GDP. They have the lowest unemployment rates for the long term. With almost 36% of European grains production, 39.7% of sheep, 43.9% of cows, the impact of the Fischler reform will be momentous.
- *Systems with the highest gaps in development in the NMS (cluster 12)*: this group includes regions from Poland, Lithuania, and Slovakia, 10% of total areas and population but

barely 4.2% of the GDP. The majority of agricultural workers in the enlarged Europe live in these areas (over 55%). The most prevalent agricultural products are cereals (almost 19% of the total) and livestock (cow, pigs, poultry). This data shows how direct aid can play an important role and that there is a strong need for rural development measures.

Finally the results of EU 25 scenario can be synthesized as follows:

- In the continental systems with a highest levels of development (cluster 1 e 4, 80 regions, 44% of the GDP and 49% of the territory), the impact of the Fischler reform will be relevant for the EU budget (almost 39% of European cereals production, 43% of sheep, 62% of cows), but irrelevant at territorial level. This category includes only 12% of agricultural employees.

Table 4 - Average clusters value

Cluster	1	2	4	5	7	9	11	12	EU-25
Regions	36	24	54	19	2	10	44	19	208
SOCIO DEMOGRAPHIC VARIABLE									
<i>Popden</i>	281.6	139.8	288.8	125.6	662.6	231.9	133.5	121.5	208.2
<i>Ageing</i>	94.3	117.9	121.1	87.2	59.8	106.6	95.6	66.2	101.3
<i>Depend</i>	49.0	51.3	48.3	44.1	48.2	47.9	54.5	45.5	49.4
ECONOMIC VARIABLES									
<i>Female</i>	5.8	17.9	10.0	8.9	6.7	9.1	7.2	20.5	10.4
<i>Unempl</i>	5.0	12.2	9.0	8.1	5.9	7.1	6.7	19.8	9.0
<i>GDP</i>	23680.8	16914.8	22188.1	12139.6	16528.2	18193.7	21941.8	8889.5	19406.8
<i>Empagr</i>	1.6	6.6	1.8	7.2	5.6	4.2	1.7	24.8	5.0
<i>Emppter</i>	69.2	68.0	65.9	36.3	27.7	65.8	72.8	27.3	61.6
<i>Empind</i>	29.2	25.4	32.1	56.5	66.8	30.1	25.5	47.8	33.3
<i>Ltunem</i>	29.5	50.6	45.7	45.4	32.7	30.0	29.7	56.1	40.1
AGRICULTURE									
<i>Agriculture structural</i>									
<i>UAA</i>	209.7	694.2	468.8	698.4	73.4	407.7	1239.7	1051.5	680.5
<i>Agriculture-Land Allocation</i>									
<i>Cereals</i>	13.3	23.9	44.3	42.1	21.1	7.5	32.0	45.6	31.9
<i>Vine</i>	0.4	10.1	2.2	1.1	8.5	9.6	0.8	0.0	2.6
<i>Permcrops</i>	0.3	21.8	1.3	2.3	18.7	3.5	0.1	1.3	3.6
<i>Orchards</i>	1.7	4.5	1.4	1.2	6.5	26.4	0.7	1.2	2.9
<i>Fallows</i>	0.1	2.1	0.5	3.7	5.7	17.0	0.6	10.4	2.7
<i>Agriculture-Livestock</i>									
<i>Shegoa</i>	0.0	0.3	0.1	0.1	3.5	0.1	0.1	0.1	0.1
<i>Pigs</i>	0.9	0.0	0.4	0.8	5.4	0.3	0.2	1.0	0.5
<i>Poultry</i>	0.3	0.1	0.1	7.5	84.0	0.0	0.1	3.6	2.0
<i>Cow</i>	0.9	0.1	0.3	0.1	0.5	0.2	0.3	0.2	0.4
<i>Milk</i>	0.7	0.0	0.2	0.1	0.5	0.1	0.2	0.2	0.2
<i>Milkow</i>	82.7	41.1	74.3	86.2	100.0	62.6	55.3	96.6	70.7
<i>Beefor</i>	0.9	2.6	0.9	4.4	3.1	0.5	0.8	7.5	2.0
<i>Agriculture-Productivity</i>									
<i>Awuint</i>	0.1	0.2	0.1	0.8	3.3	0.4	0.0	1.3	0.3
ENVIRONMENT									
<i>Woods</i>	7.6	0.7	4.4	31.4	3.4	10.8	1.1	31.9	9.1
<i>Livint</i>	4.1	11.0	3.3	0.4	4.5	6.8	2.4	0.4	3.8

- In the systems with the higher gaps in development in the NMS (cluster 5 e 12, 38 regions, 18,5% of total areas, 16% of population and barely 9,9% of the GDP) we find

the majority of agricultural workers in the enlarged Europe (over 64%). The most prevalent agricultural products are cereals (almost 41% of the EU total) and livestock (cow, pigs, and poultry). This data shows how direct aids can play an important role for some farmers, but mainly the strong need for rural development measures.

- In the Mediterranean systems (cluster 2, 7 and 9, 34 regions, 15,5% of total areas and almost 15% of the population) which are characterized by lower GDP per capita, agriculture represents an important sector for employment (almost 11,6% of total workers), but with high rates of aging. Gaps in development make evident the high rates of unemployment in the long term. In these areas the impact of the Fischler reform will be irrelevant and it would imply the maintenance of the pre-existing conditions.

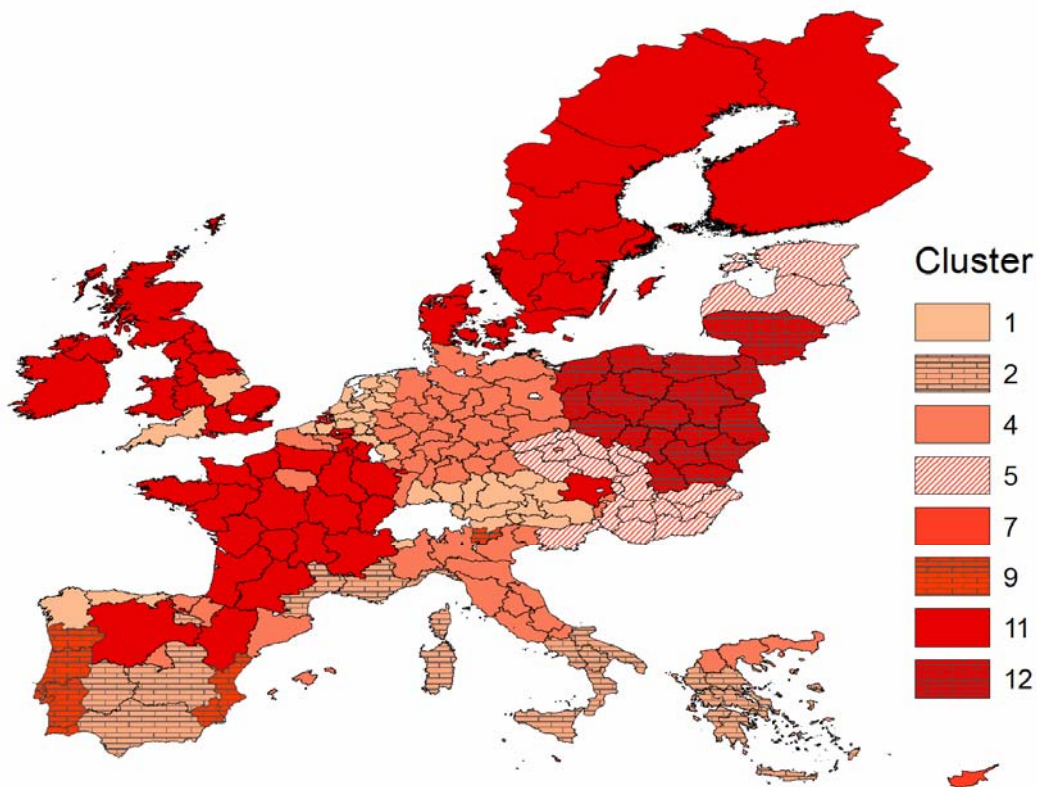


Figure 1 – The main territorial systems in EU 25. Own calculations based on Eurostat, FADN, Rural Development Report 2007, Cambridge Econometrics, Statistical Office of the NMS

3) THE CAP POLICIES AND THE COHESION POLICIES AT TERRITORIAL LEVEL

In the first part of this chapter, our aim was to verify how the design and the implementation of the CAP have been only partially influenced by the concepts of economic and social

cohesion, contained in the Fourth Cohesion Report (CEC, 2007c), in spite of the policy makers efforts to pursue the environmental sustainability. Neither Agenda 2000 neither the Fischler reform (Pillar 1) were built on criteria of territorial cohesion. Even the measures of the II Pillar, through the rural development plans, are mainly horizontal, with the only exception of those addressed to the less favourite areas (LFA) or to the agro-environmental programs. For understanding these dynamics we have utilized some simple indicators related to the relationships among:

- total CAP subsidies and GDP
- total CAP subsidies and UAA (utilized agricultural area – hectares).
- total CAP subsidies and farm net income
- total CAP subsidies and the number of agricultural employees.

Table 5 - Percentage clusters value

Cluster	1	2	4	5	7	9	11	12	EU-25
<i>Regions</i>	17.3	11.5	26.0	9.1	1.0	4.8	21.2	9.1	100.0
<i>% Pop</i>	12.0	10.7	31.6	6.3	0.3	4.0	25.0	10.2	100.0
<i>% Area</i>	6.9	12.3	15.6	8.1	0.2	3.5	42.9	10.4	100.0
<i>% GDP</i>	21.1	10.1	29.7	5.7	0.8	4.5	23.9	4.2	100.0
<i>% Empagr</i>	3.5	9.6	9.1	11.0	0.4	2.4	8.7	55.4	100.0
<i>% Empter</i>	12.9	7.7	33.9	6.0	0.3	3.6	28.1	7.7	100.0
<i>% Empind</i>	12.2	5.9	34.7	8.9	0.2	4.6	23.0	10.3	100.0
<i>% UAA</i>	5.3	11.8	17.9	9.4	0.1	2.9	38.5	14.1	100.0
<i>% Cereals</i>	2.4	8.3	22.2	11.3	0.1	1.1	35.9	18.7	100.0
<i>% Vine</i>	1.0	44.2	18.5	4.8	0.7	10.2	20.5	0.1	100.0
<i>%</i>									
<i>Permcrops</i>	0.5	69.5	8.4	7.1	0.9	5.6	1.2	6.9	100.0
<i>% Orchards</i>	3.2	20.7	17.6	6.5	0.5	29.6	11.4	10.6	100.0
<i>% Fallows</i>	0.3	9.1	2.5	11.3	0.2	21.9	11.4	43.3	100.0
<i>% Shegoa</i>	3.4	21.8	8.0	11.8	5.6	3.1	39.7	6.6	100.0
<i>% Pigs</i>	10.4	1.1	17.6	18.0	0.9	1.4	16.5	34.1	100.0
<i>% Poultry</i>	1.4	0.3	1.1	52.5	3.0	0.1	3.5	38.1	100.0
<i>% Cow</i>	18.2	4.3	18.2	4.2	0.1	1.7	43.9	9.5	100.0
<i>% Milk</i>	19.7	1.6	22.6	5.6	0.1	1.0	35.1	14.3	100.0
<i>%Milkow</i>	21.6	2.3	21.8	5.4	0.1	1.2	33.9	13.8	100.0

The analysis of the first index (Total Subsidies/GDP, Figure 2) highlights that the regions where this relationship is low (less than 2%), are limited. There are however two different realities. On one hand, the impact of the CAP measures is remarkable in the continental areas with higher levels of socio-economic development; on the other, in the systems with the deep disadvantages in the development (Mediterranean areas, NMS). This corresponds to the actual role of the sector: the agriculture is remarkable only in the territories where (a) in the lack of development, it represents still the main sector for the occupation and for the income and (b) it is tightly integrated in the food chain and where represents a driving force for the development.

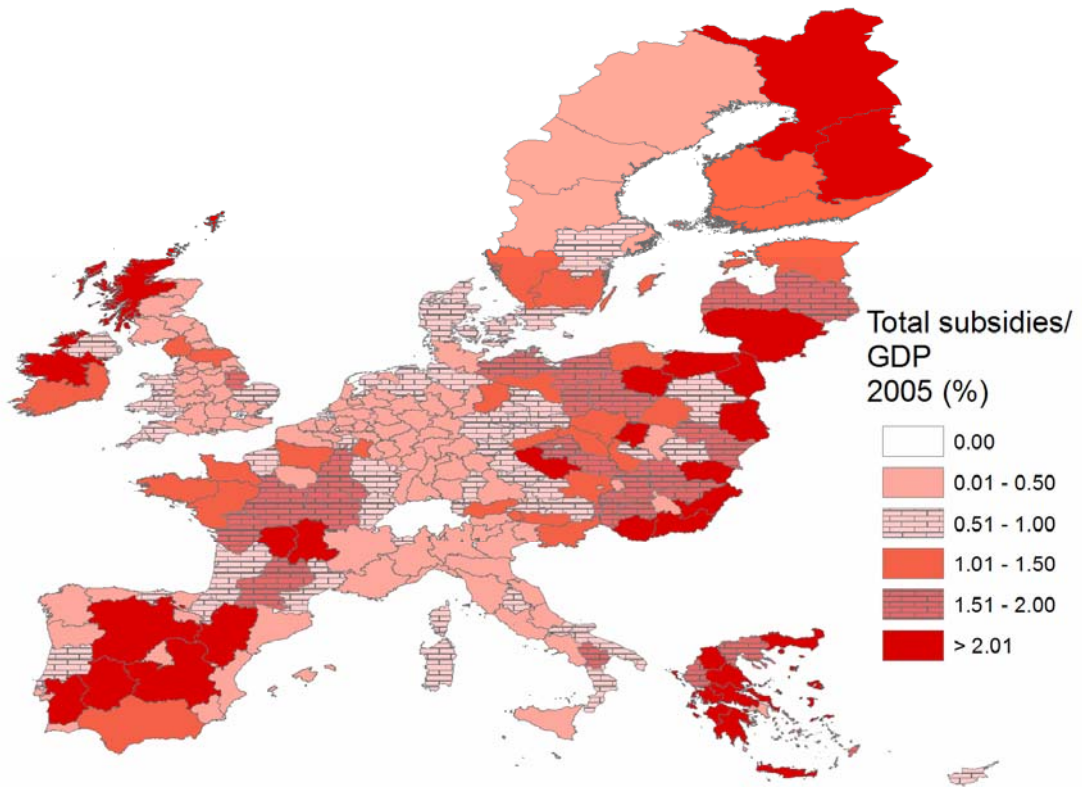


Figure 2 – Total CAP subsidies in relation to GDP , 2005. Source: FADN, Eurostat

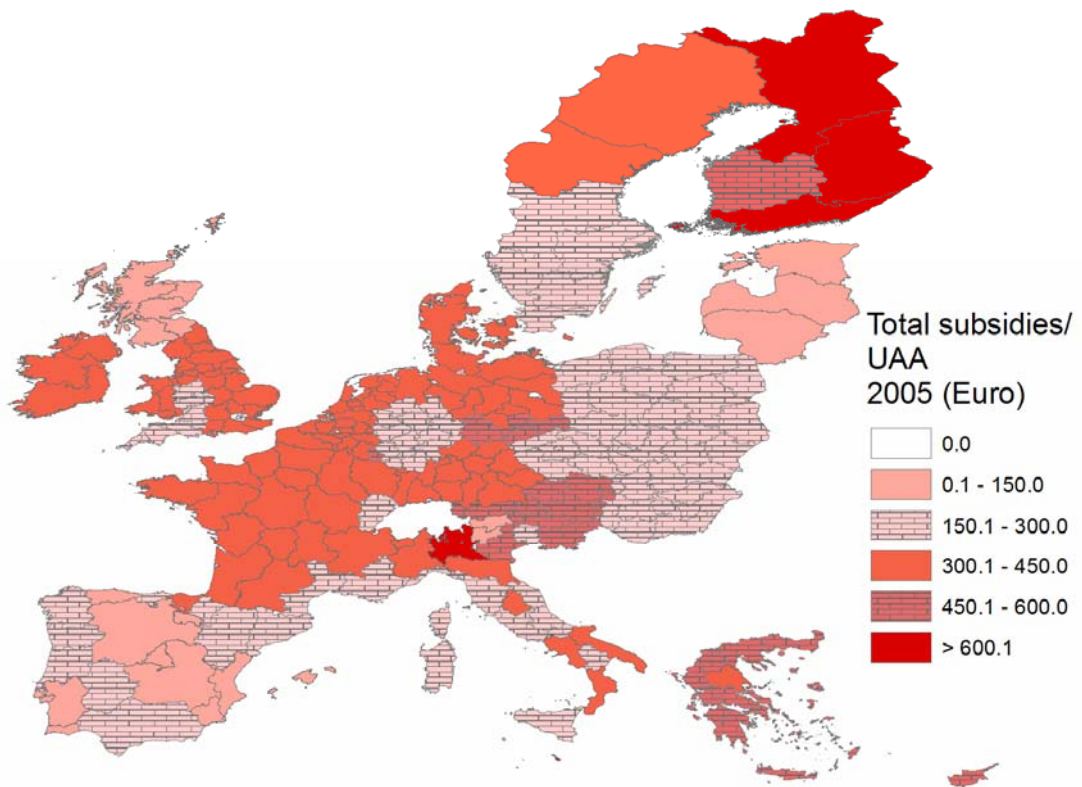


Figure 3 - Total CAP subsidies in relation to UAA, 2005. Source: FADN, Eurostat

If we observe the relationship between the total subsidies and the utilized agricultural area (Figure 3), the situation is relatively more homogeneous, with the exception of the areas where the surface dedicated to the agriculture is smaller, or for the conflict with other destinations (for example in the northern Italian regions), or for the territorial conditions (Scandinavian regions, mountain and hilly areas).

The considerations which emerge from the relationship between the total subsidies and the Farm Net Income (Figure 4), are interesting. Above all, it emerges the strong impact of the CAP in the continental more prosperous regions (i.e. French regions), but also the strong support in the Scandinavian regions, where the territorial and climatic conditions limit strongly the exercise of the agricultural activities. The desegregation of these indexes according to the farm organization (crops and livestock) underlines that the relationship among livestock subsidies and GDP is substantially uniform in almost all the European territory, while the EU crops support influences in meaningful measure the GDP both in the richer regions, both in the NMS. The same considerations emerge from the relationship among the crops and livestock subsidies with regard to the farm net income.

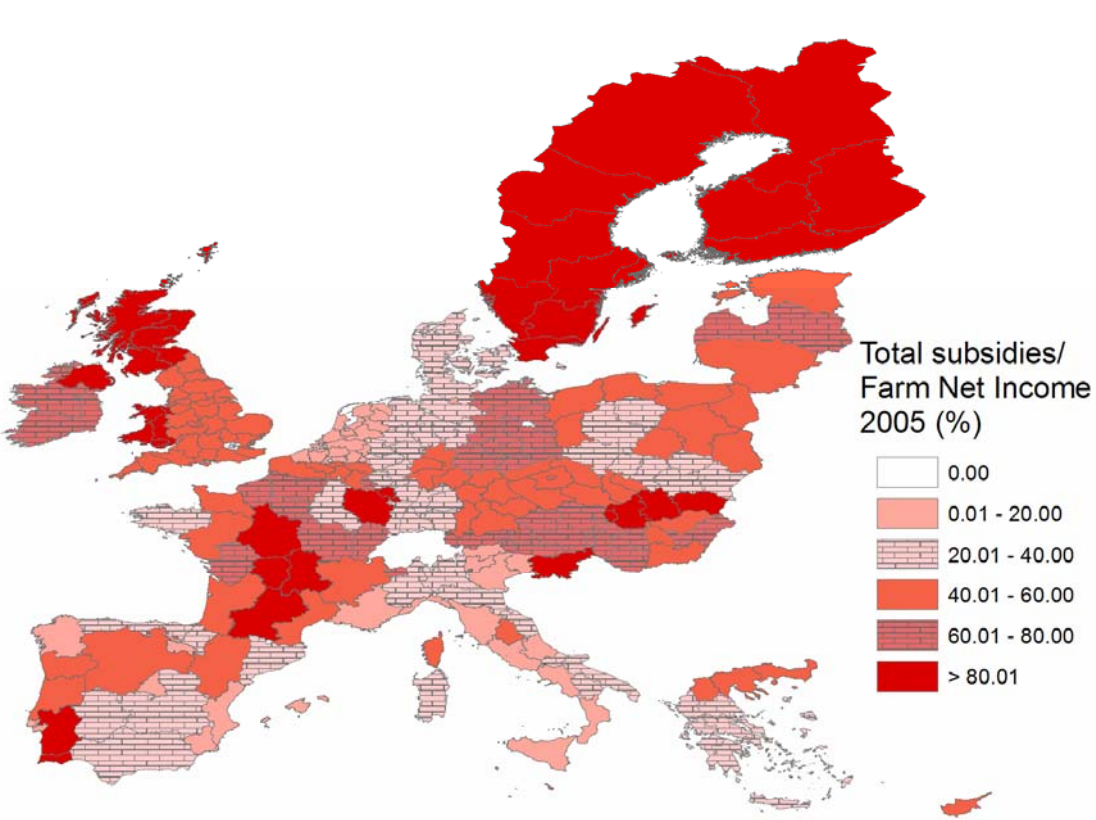


Figure 4 - Total CAP subsidies in relation to Farm Net Income, 2005. Source: FADN

More useful interpretations can be derived from the direct payments, for assessing the CAP territorial impact. It is necessary to remember that the decoupling, through the Single Farm Payment, was applied on the historical base and therefore has not changed in significant

measure the geography of the productions and of the producers in the EU15. If the relationship is examined between the directed payments and the GDP, we can observe the deep impact of these measures in the regions Objective 1 (NMS, some Mediterranean regions), while the highest EU expenses seems not to affect in noticeable measure the richer regions, where the socio-economic development is determined above all from the other sectors.

Finally if we consider the total PAC subsidies for agricultural employee (Table 5 and Figure 5), we can observe how the CAP objectives are in opposition with the objectives of the economic and social cohesion. In 106 regions (38% of the total UAA and 67% of the agricultural employees), each worker receives in media less than 5000 Euros per year. In this group we can find large part of Ob. 1 regions in the EU15, the totality of NMS and others territories, like Scandinavian regions, where the climatic conditions limit strongly the exercise of the agricultural activity. If we consider together the regions, where the agricultural workers receive until 10000 Euros, we can observe that in 181 regions are concentrated nearly 60% of CAP subsidies, but here we find 69% of the agricultural surface and mainly over 88 % of the agricultural employees. Therefore a limited number of agricultural workers, in the richest regions, perceive the rest of the CAP subsidies and this implies a strong contribution pro-capita, clearly superior to the 10000 Euros. This confirms definitely how the highest CAP expenditure doesn't influence the local development, since in the agricultural sector we find only about 5-6% of the total employees.

Table 5- Groups of Regions according to the relationship: CAP Total Subsidies/Agricultural Employment. Per cent values

Euro/ Agric. Empl.	No. of Regions	Population (mean 2000-2006)	GDP (2000)	UAA Utilized Agricultural area (UAA)
0	5	2.74	4.89	0.01
0-5000	106	50.95	41.23	37.6
5000-10000	75	25.96	28.99	31.73
10000-15000	38	14.63	18.33	19.19
15000-20000	14	3.99	4.72	8.32
>20000	7	1.73	1.84	3.15
Total	245	100	100	100
Euro/ Agric. Empl.	CAP Total Subsidies (2005)	CAP Crops Subsidies (2005)	CAP Livestock Subsidies (2005)	CAP Decoupled payments (2005)
0	0	0	0	0
0-5000	29.71	37.12	23.03	27.06
5000-10000	30.93	30.23	33.78	31.38
10000-15000	23.77	20.99	31.42	24.13
15000-20000	11.91	9.77	8.88	13.94
>20000	3.68	1.88	2.89	3.5
Total	100	100	100	100

Source: Eurostat, FADN

In the second part we have utilized some simple indicators related to the objectives 1 and 2. As known, the objective 1 structural funds were utilized in each country through two levels of intervention: the first were related to regional level, the second on a national scale, through horizontal planes relating to specific interventions.

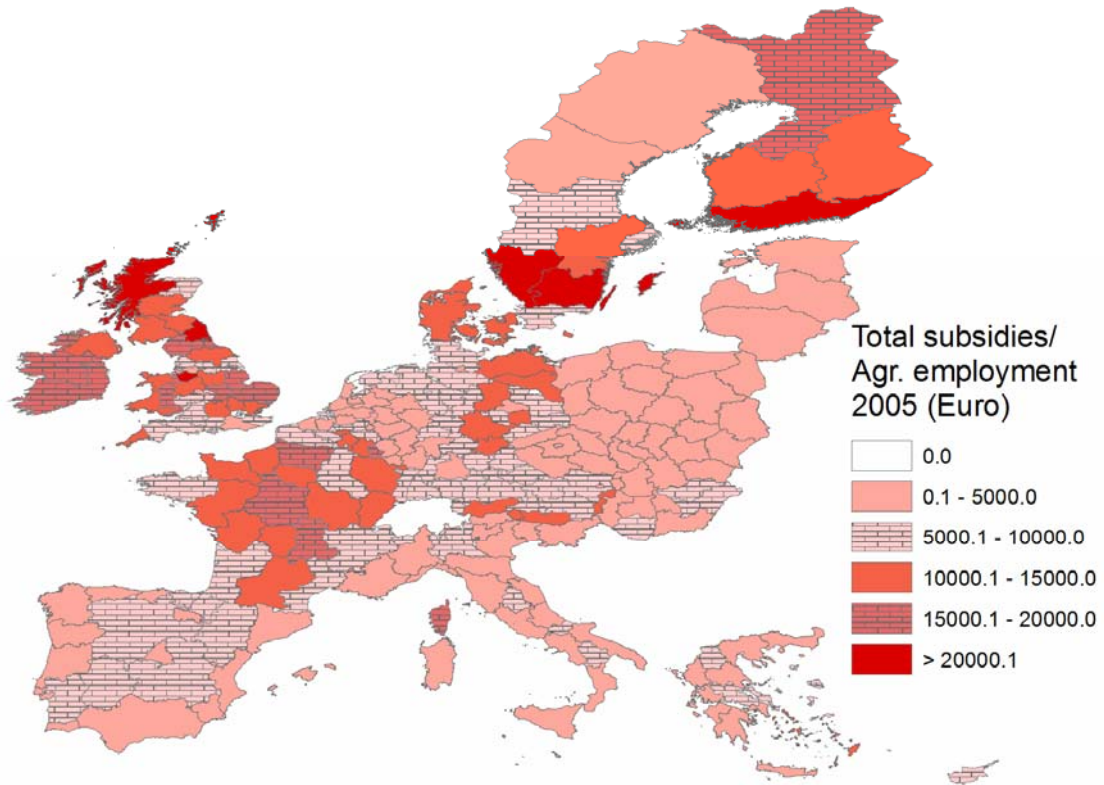


Figure 5 - Total CAP subsidies in relation to Agricultural Employment, 2005. Source: FADN, Eurostat

Since in the NMS in particular, the realization of Ob. 1 interventions was foreseen only through horizontal interventions, we have decided to regionalize the interventions contained in the sectorial national plans, through the data relating to the resident population in the single regions. Also in the awareness of the limits of the adopted methodology, the objective was to understand the existing relationship at territorial level between the CAP subsidies and the structural funds (Ob. 1 and 2).

The results (Table 6 and Figure 6) underline how in a large part of the EU territory (90 regions, 24% of the UAA and about 20% of the agricultural workers), each inhabitant collects in media less than 100 Euros per year from the structural funds, for the totality deriving from the objective 2. In these areas that correspond to the richer regions, the level of CAP expenditure is remarkable (28% of the total), above all if compared to the limited number of agricultural employees. The group of regions where each inhabitant receives in media a sum between the 100 and the 500 Euros, is wider (over 44% of the UAA and 35% of the population, with low levels of socio-economic development). Since in this group we find not

only the totality of the NMS, but also numerous prosperous continental areas, the data relating to the structural funds may be misleading (the Ob. 1 funds are limited) and at the same time the CAP interventions result elevated, 39% of the total subsidies. So, these data have to be interpreted in the light of the preceding considerations. Besides of a group of highly developed regions, there are less favoured regions where the EU support doesn't influence in noticeable measure the quality of life of the inhabitants; this highlights a need of territorial policies in degree to favour the diversification of the activities in the rural world. Finally the regions where each inhabitant collects more than 500 Euros per year from the structural policies, are few, with heterogeneous aspects. On the one hand they concerns the Mediterranean regions, belonging to the Ob. 1, on the other there are the Scandinavian regions and some continental regions, with high levels of GDP, but also with higher level of CAP subsidies.

Table 6 - Groups of Regions according to the relationship: OB1 + OB2 Structural Funds/Population. Per cent values

Euro/ Inhabitants	No. of Regions	Population (mean 2000-2006)	GDP (2000)	Utilized Agricultural area (UAA)
0	15	3.71	4.27	3.3
0.1-100	75	40.28	54.96	21.25
100-500	95	35.04	24.44	44.24
500-1000	13	3.61	4.49	4.95
1000-1500	17	7.64	5.67	6.95
> 1500	30	9.72	6.17	19.31
Total	245	100.	100	100
Euro/ Inhabitants	Agricultural Employment (2005)	CAP Total Subsidies (2000-2005)	OB1 Structural Funds	OB2 Structural Funds
0	1.59	3.67	0	0
0.1-100	19.34	29.67	0	35.37
100-500	49.53	33.19	10.16	62.29
500-1000	2.88	7.87	7.61	1.65
1000-1500	7.3	7.86	28.33	0.69
> 1500	19.62	17.75	53.89	0
Total	100	100.	100	100

Source: Eurostat, FADN, CEC, Annex to the 18th Annual Report on Implementation of the Structural Funds, Estonian Government's, Single Programming Document 2004-2006

4) SOME FINAL REMARKS

This paper has explored the EU development at territorial level from the point of view of agricultural and rural policy.

Table 7 - Groups of Regions according to the relationship: CAP Total Subsidies/Population. Per cent values

Euro/ Inhabitants	No. of Regions	Population (mean 2000-2006)	GDP (2000)	Utilized Agricultural area (UAA)
0	5	2.74	4.89	0.01
0.1-100	30	16.81	13.61	6.64
100-500	101	48.05	48.32	33
500-1000	53	15.46	16.73	17.57
1000-1500	25	9.38	8.99	17.95
> 1500	31	7.55	7.47	24.82
Total	5	2.74	4.89	0.01
Euro/ Inhabitants	Agricultural Employment (2005)	CAP Total Subsidies (2000-2005)	OB1 Structural Funds	OB2 Structural Funds
0	0.21	0	0.92	3.45
0.1-100	16.8	1.98	15.6	11.83
100-500	45.59	23.87	30.86	44.43
500-1000	12.45	21.64	17.17	16.99
1000-1500	11.76	21.42	20.11	11.07
> 1500	13.19	31.09	15.33	12.23
Total	100	100.	100	100

Source: Eurostat, FADN, CEC, Annex to the 18th Annual Report on Implementation of the Structural Funds, Estonian Government's, Single Programming Document 2004-2006

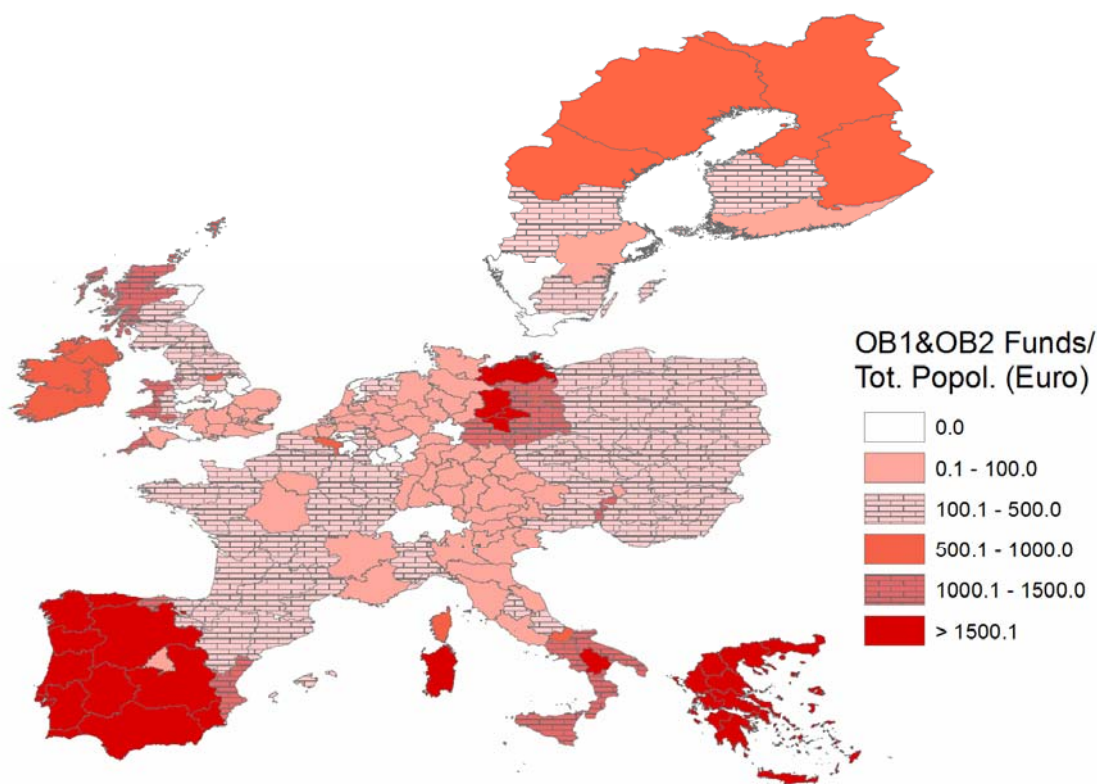


Figure 6 – Ob. 1 & Ob. 2 (2000-2006) Funds in relation to total population (mean 2000-2006). Source: CEC, Annex to the 18th Annual Report on Implementation of the Structural Funds, Estonian Government's, Single Programming Document 2004-2006, Eurostat

The statistical analysis conducted at NUTS 3 level, using REGIO and FADN data, suggest some final considerations:

- 1) The new CAP, based on the Single Farm Payment designed to serve multiple goals, have a rather limited impact on regional income disparities and falls short in making any substantial contribution to closing regional income gaps. For some aspects the CAP measures of Pillar 1 acts against social cohesion in the EU25, since higher levels of CAP expenditure are associated with more prosperous regions. In particular the Pillar I support for the decoupling doesn't contribute to the cohesion neither in the Ob. 1 regions, since it was designed on historical basis. We can find an example in the maps related to the relationships between the total subsidies/ population and the Ob. 1 and 2 funds/population; some Ob. 1 regions in Greece, Spain and Italy collect much more direct payments than other Ob 1 regions in the same countries
- 2) The evidence on the Pillar II is more mixed, but it appears weakly linked to cohesion objectives. We cannot forget that in 2000-2006 the Pillar II measures have been adopted differently in EU15 member states, generally with northern countries implementing agri-environmental measures and southern states on agricultural development (Pillar II payments have been perceived as providing an element of income support). Furthermore, schemes in Pillar II require co-financing, initiatives and skills; such characteristics are likely to favour the already advantaged and hence to leave the disadvantaged regions. Beside, an objective of rural development measures (broadening the view with more funds for non agricultural purposes), had not pursued. Also the first analysis conducted on the Member states' use of the II Pillar for the period 2007-2013 reveal a conservative approach rather than an authentic intent to rebalance towards rural development
- 3) From an angle of EU27 cohesion, the heterogeneity of situations in the rural world is the real problem. The greatest disparities in regional income and economic and social indicators are to be found mainly in the rural areas, while towns and in particular the NMS capital cities are swiftly catching up. Nevertheless, from an strictly economic point of view, it is hard to justify how more than 40% EU budget should be addressed to only 2,1% of the population, also if we add the 4,6 million of agri-food employees. In this direction the Pillar II measures represent an important tool for safeguarding the economic viability of the rural areas, mainly if the support should be addressed not only to agricultural farmers For promoting a new rural development the real problem is of financial nature. Even though the Middle Term Review of 2003 has modified modifies substantially the mechanisms of CAP support, the rural development measures remains of scarce importance, Also the Health Check of the PAC has introduced limited modifications: the rural

development measures should reach in 2013 only 25% of the total financings of the PAC, while the rest will continue to sustain the Pillar I relating to direct payments and to the interventions on the agricultural markets. In fact the proposal for modulation, also if interesting, allows a modest re-balancing in the single countries.

- 4) Finally if we consider the direct payments, in particular the Single Farm Payment, regionalisation seems to be the best solution, also if there many problems to solve: the structural funds' adsorption mainly in NMS, because of weakness of regional institutions and the presence of a strong administrative centralisation; the equity of the redistribution and of the regionalisation; the efficiency of these payments for pursuing objectives of territorial development

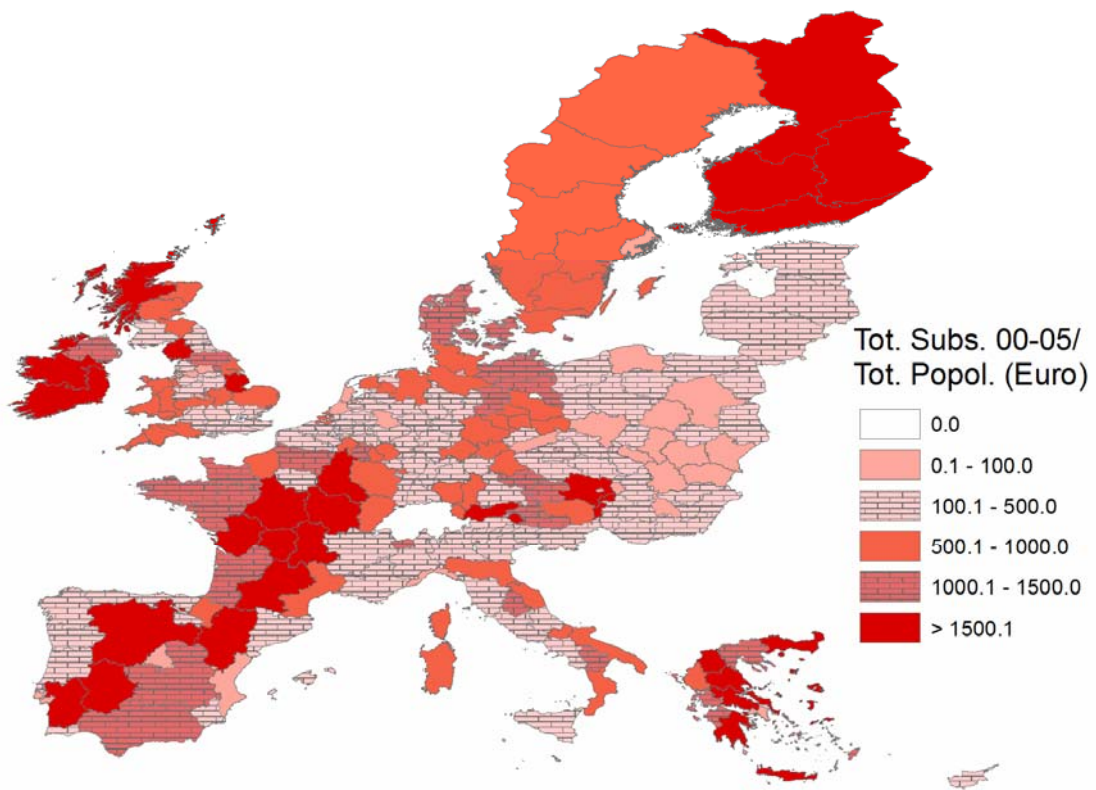


Figure 7 - Total CAP subsidies (2000-2005) in relation to total population (mean 2000-2006).
Source: FADN, Eurostat

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