Socio - economic aspects in the European area, by types of regions⁴⁸

Researcher Cristina Neculai Ph. D
National Institute for Economic Research
Economics and Management of Agricultural and Food
Production, The Bucharest Academy of Economic
Studies

Abstract: The analysis of the territory, of the population, of the gross value added and of the employment by types of regions ("predominantly rural", "intermediate" and "predominantly urban" regions) allows us to observe, on the one hand, the concentration of these indicators by regions and, on the other hand, the importance of the regions from the perspective of ensuring these resources for the naţional economy. Also, the analysis of the employment and the gross value added in the non-agricultural sector express the sources of these indicators on the sectors of the national economy: the primary, the secondary and the tertiary sectors. The comparative analysis of the indicators registered by our country with the other indicators of EU countries helps us to observe where Romania is positioned in European Union, in terms of economic and social activity.

JEL classification: O18, R11, Q10

Key words: predominantly rural regions, predominantly urban regions, intermediate regions. non-agricultural sector

I. THE IMPORTANCE OF RURAL AREAS, BY TYPES OF DE REGIONS*, IN ROMANIA

⁴⁸ This paper is suported by the Sectorial Operational Programme Human Resources Development (SOP HRD), financed from the European Social Fund and by the Romanian Government under the contract number SOP HRD/89/1.5/S/62988". Titles and intellectual and industrial property rights on the results of the post-doctoral research programme belong to The National Institute of Economic Research "Costin C. Kiriţescu of the Romanian Academy

[•] In 2010, the European Commission agreed on a new European Union typology of "predominantly rural", "intermediate" and "predominantly urban" regions which is based on a variation of the OECD methodology that was previously used. This new typology uses a population grid of one square kilometre resolution which for Denmark, Sweden, Finland, Austria and The Netherlands is based on real census data (see European Forum for GeoStatistics (EFGS). For the remaining Member States, it uses the disaggregation grid created by the Joint Research Centre (JRC), based on LAU2 population and CORINE land cover.

The method builds on a simple approach to create clusters of urban grid cells with a minimum population density of 300 inhabitants per km² and a minimum population of 5 000 (to determine the "urban clusters", the grid cells are grouped based on contiguity (including the diagonals); if the central cell is above the density threshold, it will be grouped with each of the other surrounding eight cells that exceed the density threshold).

All the cells outside these urban clusters are considered as rural. The population living in rural areas is the population living outside the urban areas identified through the method described above.

Local administrative units level 2 (LAU2) are classified based on the share of population in rural cells following the majority principle (a LAU2 is rural if at least 50% of the residents lives in rural areas).

We analyze the teritory, the population, the employment and the gross value adeed on different types of regions (predominantly rural region, intermediate regions and predominantly urban regions) in Romania, year 2007.

In the Romanian rural areas (predominantly rural and intermediate regions) 90% of the population there is in 99% of the territory, while in the urban areas (predominantly urban regions) 10% of the population there is in 1% of the territory (Figure no 1).

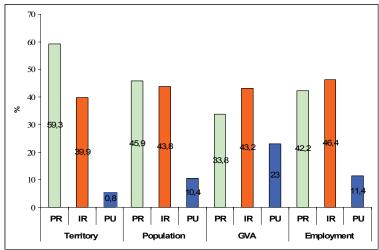


Figure no. 1 Teritory, population, gros value adeed and employment in Romania, 2007 year

Note: PR - Predominantly Rural Regions; IR - Intermediate Regions; PU - Predominantly Urban Regions

Source: Rural Development in the European Union, Statistical and Economic Information, Report 2010

This new typology applied to the NUTS 3 level successfully addresses two main constraints of the OECD methodology in the EU: the variation in surface area of both LAU2 and NUTS 3 regions. It does this in a consistent manner throughout the Union in two main steps:

I. It groups NUTS 3 regions of less than 500 km^2 with one or more of its neighbours solely for classification purposes, i.e. all the NUTS 3 regions in a group are classified in the same way;

II. It classifies NUTS 3 regions based on the share of population in rural grid cells. More than 50% of the total population in rural grid cells = predominantly rural, between 20% and 50% in rural grid cells = intermediate and less than 20% = predominantly urban.

The new typology considers the presence of large urban centres in the same way of the OECD methodology: a "predominantly rural" region (or group of regions) is re-classified as "intermediate" if there is an urban centre > 200.000 inhabitants representing no less than 25% of the regional population; an "intermediate" region (or group of regions) is re-classified as "predominantly urban" if there is an urban centre > 500.000 inhabitants (in EU) representing no less than 25% of the regional population.

The indicators (the teritory, the population, the employment and the gross value adeed) are analyzed by type of regions (predominantly rural regions, intermediate regions predominantly urban regions) in the form of proportion; for each indicator, the sum of three proportions of the indicator, by types of regions, totals 100%, for each country.

Most of the territory (99%) is in the rural areas (predominantly rural and intermediate regions). By type of regions, the largest proportion of the territory (59%) is in predominantly rural regions, and the lowest proportion (under 1%) is in the predominantly urban regions.

The population, as for the territory, is located in rural areas (predominantly rural and intermediate regions) in a significant proportion, respectively 90%. By type of regions, the largest proportion of the population (46%) there is in the predominantly rural regions, and the lowest percentage (10%) there is in the predominantly urban regions.

In terms of the economic activity, we make the following comments, according to the data in the table above:

- the employment is provided by the rural areas in proportion of 89%, the largest share being provided by the intermediate regions with a contribution of 46%; 42% of the employment is concentrated in the predominantly rural regions and only 11% it is in the predominantly urban regions;
- most of the gross value added is provided by the rural areas (77%), the largest share being provided by the intermediate regions with a proportion of 43%; 34% of the gross value added is concentrated in the predominantly rural regions and only 23% it is in the predominantly urban regions.

From the above analysis, we see that in our country, both the employment and the gross value added are concentrated in the intermediate regions.

If in the predominantly urban regions, 11% of employment provides 23% of gross value added, in the predominantly rural regions, 42% of employment provides 34% of gross value added, which means a better economic efficiency in the predominantly urban regions compared with the predominantly rural regions.

The rural areas (predominantly rural and intermediate regions) have a special significance for Romania in the light of the important proportions of the territory and the population.

The economic activity (expressed by the employment and the gross value added), in our country, is concentrated more in the intermediate regions compared to that of the predominantly rural and predominantly urban regions.

II. Teritory, population, employment and gros value adeed on different types of regions, in Romania and in the other EU countries

We analyze the teritory, the population, the employment and the gross value adeed on different types of regions in Romania and in the other EU countries, year 2007*.

a) The teritory and the population in Romania and in the other EU countries

In the rural areas (predominantly rural and intermediate regions), the territory varies from 54% in the Netherlands to 100% in Estonia and Slovenia and the population varies from 29% in the Netherlands to 100% in Estonia and Slovenia.

[•] The indicators (the teritory, the population, the employment and the gross value adeed) are analyzed by type of regions (predominantly rural regions, intermediate regions, predominantly urban regions) in the form of proportion; for each indicator, the sum of three proportions of the indicator, by types of regions, totals 100%, for each country.

Economic Theories – International Economic Relations

We observe that, if the territory is concentrated for an important number of countries, in predominantly rural regions, the population has a relatively balanced distribution on the three types of regions, for most European countries (Table no 1).

Table no 1 Territory and Population by types of regions, in Romania and in the other EU countries, 2007 year

%

Indicators		Territor	v	Population			
Types of			1	1			
regions	PR	IR	PU	PR	IR	PU	
Romania	59,3	39,9	0,8	45,9	43,8	10,4	
Austria	72,2	18,9	8,8	39,4	26,5	34,1	
Belgium	33,8	31,8	34,4	8,7	23,9	67,5	
Bulgaria	53,6	45,1	1,2	39	44,9	16,2	
Cyprus	0,0	100,0	0,0	0,0	10	0,0	
Czech Republic	48,3	37,1	14,6	33,3	43,6	23,1	
Denmark	71,8	27	1,2	42,9	36	21,2	
Estonia	82,3	17,7		48,3	51,7	0,0	
Finland	83,3	14,6	2,1	43,2	30,7	26,1	
France	64,6	27,3	8,1	28,7	35,7	35,6	
Germany	39,8	48,4	11,8	17,5	40	42,5	
Greece	82,2	12,1	5,6	43,2	10,5	46,3	
Hungary	66,3	33,1	0,6	47,5	35,6	16,9	
Ireland	98,7		1,3	72,3		27,7	
Italy	45,5	42,3	12,3	20,5	43,9	35,6	
Latvia	62,8	21,1	16,1	38,4	13,4	48,2	
Lithuania	65	19,9	15	43,6	31,2	25,1	
Luxembourg	0,0	100,0	0,0	0,0	100	0,0	
Malta	0,0	0,0	100,0	0,0	0,0	100,0	
Netherlands	2,2	51,5	46,3	0,7	28,2	71,1	
Poland	55,6	34,5	9,9	37,9	33,8	28,3	
Portugal	84,1	8,7	7,3	36,3	15,2	48,4	
Slovakia	59	36,8	4,2	50,4	38,3	11,3	
Slovenia	61	39		43,8	56,2		
Spain	46,1	39,5	14,4	13,3	38,2	48,5	
Sweden	52,6	45,8	1,6	22,7	56,2	21,1	
United Kingdom	27,4	47	25,6	2,9	26	71,1	
EU27	56,6	34,3	9,2	23,7	35,5	40,9	
EU15	56,0	33,9	10,1	19,2	34,6	46,2	

[&]quot; the data are not disponible

Note: PR - Predominantly Rural Regions; IR - Intermediate Regions; PU - Predominantly Urban Regions

Source: Rural Development in the European Union, Statistical and Economic Information, Report 2010

In the EU-27, the territory, by types of regions, varies: from 2% in Netherlands to 99% in Ireland in the predominantly rural regions, from 9% in Portugal to 52% in Netherlands in the intermediate regions and from 1% in Hungary to 46% in Netherlands in predominantly rural regions and the population varies: from 1% in the Netherlands to 72% in Ireland in predominantly rural regions, from 11% in Greece to 56% in Slovenia and Sweden in intermediate regions, from 10% in Romania to 71% in Netherlands and United Kingdom in predominantly urban regions.

In Romania, the rural areas (predominantly rural and intermediate regions) in terms of territory is 99.2%; this percentage is one of the highest in the EU-27 countries, surpassed only by Hungary (99.4%), Estonia Slovenia (each with 100%); the predominantly rural regions provide the largest share of the population 46%, while the predominantly urban regions concentrates only 10% (which is the lowest percentage in the EU).

b) The employment and the gross value added in Romania and in other EU countries

In the rural areas (predominantly rural and intermediate regions), the **employment** varies from 27% in the Netherlands to 100% in Estonia and Slovenia and the **gross value added** varies from 24% in the United Kingdom to 100% in Estonia and Slovenia (Table no 2).

Table no 2 Employment and gross value added by types of regions, in Romania and in other EU countries, 2007 year

%

Indicators	Employment Gross Value Added					e Added
Types of regions	PR	IR	PU	PR	IR	PU
Romania	42,2	46,4	11,4	33,8	43,2	23
Austria	n.a.	n.a.	n.a.	30,5	28,8	40,7
Belgium	6,8	20,5	72,7	5,5	18,9	75,6
Bulgaria	35,3	41,8	22,9	27	36,6	36,4
Cyprus	0,0	100,0	0,0	0,0	1000	0,0
Czech Republic	32,2	40,2	27,6	27,8	36,5	35,7
Denmark	40,6	32,6	26,7	38,8	31,4	29,8
Estonia	42,5	57,5	0,0	32,6	67,4	0,0
Finland	39,7	29,2	31,1	36,2	28	35,8
France	26,6	34,1	39,2	23,2	31,3	45,5
Germany	15,8	38,3	45,9	14,7	35,9	49,5
Greece	40,8	10,8	48,4	32,5	8,8	58,6
Hungary	44	31,5	24,5	34,9	28,4	36,7
Ireland	68	0,0	32	59,5		40,5
Italy	19,4	43,5	37,2	18,6	42,6	38,9
Latvia	35,4	13	51,7	23	10,3	66,8
Lithuania	41,2	31,4	27,4	29,9	30,7	39,4
Luxembourg	0,0	100,0	0,0	0,0	100	0,0
Malta	0,0	0,0	100,0	0,0	0,0	100,0
Netherlands	0,6	26,1	73,3	0,8	25,4	73,8

Economic Theories – International Economic Relations

Indicators		Employm	ent	Gross Value Added		
Poland	35,2	31,9	32,9	27,3	30,9	41,8
Portugal	36,8	14,7	48,6	31,1	11,5	57,4
Slovakia	44,3	36,4	19,3	40,5	32,8	26,7
Slovenia	40,3	59,7		36,5	63,5	
Spain	12	36,6	51,4	10,7	35,6	53,6
Sweden	21,4	54,4	24,2	20	51,7	28,3
United Kingdom	2,3	26	71,7	2	22,2	75,8
EU27	21,4	34,6	44	16,6	31,8	51,6
EU15	17,3	33,7	49	15,7	31,4	52,9

^{...} the data are not disponible

Note: PR - Predominantly Rural Regions; IR - Intermediate Regions; PU - Predominantly Urban Regions

Source: Rural Development in the European Union, Statistical and Economic Information, Report 2010

Compared to the analyzed situation for the indicators territory and population, which are provided of the largest proportion of the rural areas (predominantly rural and intermediate regions), in providing to the employment, all three regions (PR, IR, PU) have an important contribution.

Thus, the employment is provided (in the highest proportion):

- by the predominantly rural regions in the countries: Denmark, Finland, Hungary, Ireland, Lithuania, Poland, Slovakia;
- by the intermediate regions in the countries: Romania, Bulgaria, Czech Republic, Estonia, Italy, Slovenia, Sweden;
- by the predominantly urban regions in the countries: Belgium, France, Germany, Greece, Latvia, Netherlands, Portugal, Spain, United Kingdom.

The main region which generates the gross value added in the European area is the urban one (for a total of 14 countries out of 27). Thus, the proportion of gross value added is greater:

- in the predominantly rural regions for the countries: Austria, Denmark, Finland, Ireland, Slovakia;
- in the intermediate regions for the countries: Romania, Bulgaria, Cyprus, Czech Republic, Estonia, Italy, Luxembourg, Slovenia, Sweden;
- in the predominantly urban regions for the countries: Belgium, Finland, France, Germany, Greece, Hungary, Latvia, Lithuania, Malta, Netherlands, Poland, Portugal, Spain, United Kingdom.

In the EU - 27, by types of regions, the **employment** varies: from 1% in Netherlands to 68% in Ireland in predominantly rural regions, from 11% in Greece to 60% in Slovenia in intermediate regions, from 11% in Romania to 73% in Netherlands in predominantly urban regions and the **gross value added** varies: from 1% in Netherlands to 60% in Ireland in predominantly rural regions, from 9% in Greece to 67% in Estonia in intermediate regions, from 23% in Romania to 76% in United Kingdom in predominantly urban regions.

For our country, the largest proportion of employment is provided by the intermediate regions (46%), followed closely by the predominantly rural regions with 42%, while the predominantly urban regions covering only 11% of this indicator, which

is the lowest in the EU-27; the gross added value is provided in proportion of 77% by the predominantly rural and intermediate regions (this proportion is exceeded only by two countries Estonia and Slovenia, each with 100%) and in proportion of 23% by the urban region (which is the smallest proportion of the EU- 27, 2007 year).

The territory is concentrated for an important number of countries, in predominantly rural regions and the population has a relatively balanced distribution on the three types of regions (PR, IR, PU), for most European countries.

Also, for most European countries, in providing to the employment, all three regions (PR, IR, PU) have an important contribution.

A greater number of countries of the EU-27 have a proportion of gross value added higher in predominantly urban regions, compared with the other two regions (PR and IR).

III. The employment and the gross value added in the non-agricultural sector * in România and in the other EU countries

We analyze the proportion of employment and the proportion of gross value added in the non-agricultural sector•• on different types of regions, in Romania and in the other EU countries, year 2007 (Table no).

Table no 3 Eployment and Gross value added in the non-agricultural sector* for Romania and for other EU countries, 2007 year

Indicators	in second	are of employmen dary and tertiary : % total employme	sectors	Share of Gross value added (GVA) in secondary and tertiary sectors (% total GVA)			
Ttypes of regions	PR	IR	PU	PR	IR	PU	
Romania	61,1	70,4	98,9	88,8	93,9	99,7	
Austria	n.a.	n.a.	n.a.	96,0	98,8	99,5	
Belgium	94,5	97,0	98,8	96,8	98,4	99,5	
Bulgaria	71,2	78,5	97,7	87,3	92,6	99,7	
Cyprus		95,5			97,8		
Czech Republic	94,4	96,8	98,1	95,5	97,7	98,9	
Denmark	95,5	97,2	99,6	97,9	98,8	99,9	
Estonia	90,9	98,7		91,8	99,0		
Finland	91,4	95,5	99,4	93,8	97,0	99,6	
France	93,9	96,7	98,8	95,5	97,1	99,4	
Germany	95,4	97,4	99,1	97,8	98,8	99,7	
Greece	76,4	86,8	98,9	90,8	94,4	99,4	
Hungary	88,8	91,2	99,4	92,8	95,1	99,8	
Ireland	92,1		99,5	97,5		99,9	
Italy	92,1	95,4	98,7	96,3	97,4	99,3	

[•] the non-agricultural sector (secondary and tertiary sectors)

150

^{**} the share of employment in secondary and tertiary sectors is calculated as % in total employment and the share of gross value added in secondary and tertiary sectors is calculated as % in total gross value added

Economic Theories – International Economic Relations

Indicators	in seconda	Share of employment in secondary and tertiary sectors (% total employment)		Share of Gross value added (GVA) in secondary and tertiary sectors (% total GVA)			
Latvia	83,8	85,6	95,9	90,8	93,5	98,8	
Lithuania	83,0	92,3	96,7	92,1	96,6	98,7	
Luxembourg		98,3			99,6		
Malta			97,7			97,5	
Netherlands	94,8	94,7	97,7	97,0	96,6	98,4	
Poland	72,6	88,0	96,2	90,2	96,2	99,0	
Portugal	76,8	86,7	97,3	94,6	96,4	99,3	
Slovakia	94,6	97,0	99,0	94,2	97,2	99,1	
Slovenia	86,5	93,9		95,9	98,4		
Spain	88,1	94,1	98,3	91,7	96,3	99,0	
Sweden	96,2	97,6	99,6	96,9	98,5	99,9	
United Kingdom	92,9	97,6	99,3	95,2	98,2	99,6	
U15	91,2	96,2	98,8	95,9	97,8	99,4	
U27	85,8	93,7	98,6	95,4	97,6	99,4	

^{*}The indicators (the employment and the gross value adeed) are analyzed by type of regions (PR, IR, PU) in the form of proportion (share); for each indicator, the share of each region is the corresponding of the non- agricultural sector (secondary and tertiary sectors), which means that the value (ratio) up to 100% is corresponding to the primary sector (agriculture, hunting and forestry).

Note: PR - Predominantly Rural Regions; IR - Intermediate Regions; PU - Predominantly Urban Regions

Source: Rural Development in the European Union, Statistical and Economic Information, Report 2010

In the EU-27, according the data from the table above, we observe that, the share of employment in the non-agricultural sector by types of regions, is the lowest in the predominantly rural regions (61% in Romania) and the highest in the predominantly urban regions (100 % in Denmark, Ireland, Sweden, Denmark).

Another indicator of the economic activity gross value added provided by the non-agricultural sector has, also, a high proportion in predominantly urban regions in all EU countries, standing out with 100% the countries: Belgium, Austria, Finland, United Kingdom, Germany, Romania, Bulgaria, Hungary, Sweden, Ireland, Denmark.

In the EU-27, the analized indicators of the non-agricultural sector, by types of regions, varies:

- from 61% in Romania to 96% in Sweden in predominantly rural regions, from 70% in Romania to 99% in Estonia in intermediate regions, from 96% in Latvia to 100% in Ireland, Sweden, Denmark in predominantly urban regions for the employment;
- from 87% in Bulgaria to 98% in Denmark in predominantly rural regions, from 93% in Bulgaria to 100% in Luxembourg in the intermediate regions, from 98% in Malta to 100% in Belgium, Austria, Finland, United Kingdom, Germany, Romania, Bulgaria, Hungary, Sweden, Ireland, Denmark in predominantly urban regions for the gross value added.

In Romania, the share of employment in the non-agricultural sector varies from 61% in predominantly rural regions to 70% in intermediate regions and respectively to 99% in the predominantly urban regions, and the share of gross value added in the non-

agricultural sector varies from 89% in predominantly rural regions to 94% in intermediate regions and respectively to 100% in predominantly urban regions.

Romania, compared to the other EU-27 countries, has one of the lowest proportion of gross value added (89%) in the non-agricultural sector in PR (only Bulgaria registered a smaller proportion) and has a smaller proportion of gross value added (94%) in IR (only Latvia and Bulgaria have the smallest proportion). In fact, the proportion of gross value added in the non-agricultural sector in the two types of regions, means a higher proportion of this indicator in the primary sector. Also, our country, compared to the other EU-27 countries, has the lowest proportion of employment in the non-agricultural sector, both in predominantly rural regions and in the intermediate regions, which results a higher share of this indicator in primary sector (mainly represented by agriculture and hunting, forestry), in these two regions.

The non - agricultural sector provides the highest proportions both in terms of employment and, especially, in terms of gross value added, in the predominantly urban regions, for most European countries.

Conclusions

The rural areas (predominantly rural and intermediate regions), both by the **territory** and the population has a special importance for Romania and for the other EU countries. In our country, the economic activity (gross value added and employment) is concentrated in predominantly urban and intermediate regions.

The low proportions of the employment and of the gross value added in the non-agricultural sector registered of our country, in comparison with the other European countries, reflects the importance of the primary sector in terms of economic activity, with particular reference to these indicators.

REFERENCES

- Marginean I., Quality of life in Romania, Institute of research the quality of life Precupetu I.
- 2. Rural Development in the European Union, Statistica land economic Information, Report 2010
- 3. Standard of living and economic growth in rural areas and their main determinants by type of regions, Directorate L. Economic analysis, perspectives and evaluations