ΠΑΝΕΠΙΣΤΗΜΙΟ ΘΕΣΣΑΛΙΑΣ τμημα μηχανικών χωροταξίας και περιφερειακής αναπτυξής

Σειρα ερεγνητικών εργασιών

THE REGIONAL STRUCTURE OF ALBANIA, BULGARIA AND GREECE: IMPLICATIONS FOR CROSS-BORDER COOPERATION AND DEVELOPMENT

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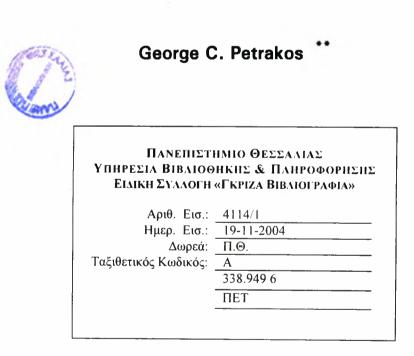


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08/12/2017 08:44:00 EET - 137.108.70

THE REGIONAL STRUCTURE OF ALBANIA, BULGARIA AND GREECE: IMPLICATIONS FOR CROSS-BORDER COOPERATION AND DEVELOPMENT



^{*} This paper is based on research work undertaken within the content of the project: G. Petrakos (1995) "Cross-border cooperation between Albania, Bulgaria and Greece", financed by the European Commission under the ACE/PHARE Program (Contract No ACE-92-0391-R), Athens University of Economics and Business.

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1. Introduction

The economic geography of Europe is changing in a fundamental way by the forces of a two-dimensional integration process. On the one hand is the enlargement of the European Union, the operation of the Single European Market and the Maastricht policies towards the Economic and Monetary Union, usually understood as an efficiency driven process and a European response to the challenges posed by global markets. This process however, is known to generate severe pressure for adjustment to the European periphery, consisting of countries with weak economic structures and an unfavorable index of strategic location in the new European space (CEC 1991, CEC 1993, Amin et.al. 1992, Petrakos and Zikos 1994).

On the other hand, the process of transition, putting itself a tremendous pressure to Central and East European economies for structural and institutional change, eliminates gradually a historical divide with long-lasting implications for the future European spatial regularities and dynamics(Petrakos 1995b)¹.

This new reality in Europe, with all its complexity, conflict and rapid change, has generated, for the first time in the post war period, conditions that provide a real opportunity to the countries in the Balkan peninsula to remove barriers that for decades restricted economic and social interaction. Neighboring countries such as Albania and Greece or Bulgaria and Greece that had no or little interaction for decades and neighboring border regions a few kilometers apart, with no physical access to, or communication with each other, get now another chance to evaluate the elements of the new environment and establish mutually beneficial relations.

The examination of the economic characteristics of countries with common borders, requires in most cases a geographical perspective and the examination of the spatial structure of these adjacent economies, in order to detect differences or similarities in the existing development patterns. This is particularly important in our case, considering that the existing geographical distribution of activities in Albania, Bulgaria and Greece, their location, concentration or dispersion has probably been affected by

¹ For a discussion of the characteristics and the implications of the transition process see Hare(1991), Roland(1993), Weitzman(1993), Jackson and Bilsen (1994), Jackson and Biesbrouck(1994), Swinnen(1994), Jackson and Petrakos(1995) and Jackson, Koltay and Biesbrouck(1995).

the fact that borders acted as real barriers to economic and social relations for decades.

Given that development is a geographically determined process, influenced by factors such as distance, proximity, agglomeration economies, critical market size, etc (Petrakos 1995b), it can be asserted that the post World War II artificial division of the Balkan economic space has negatively affected all countries in the region. Nevertheless, for the same factors stated above, it is unavoidable that the distribution of activities within any country is to a certain extent unequal. In several cases, highdevelopment areas or axes are formed, comprising of the most significant part of economic activity in each country.

For our study, it is important to know where these areas or axes of development have been formed in each country and how these formations affect the prospects for economic interaction and cooperation. Although frequently forgotten, cooperation as any other economic activity is a distance related process (Peschel 1990, Krugman 1994, Petrakos 1995a, 1995c). In that sense it is important to know the "distance" intervening between the interacting parts and the respective mutual force of attraction exerted, given that all activities are not concentrated in the borders.

Our analysis is in NUTS II level, based on the administrative divisions of Map 1, although we are aware that administrative and functional or economic regions do not always coincide. In the next section we examine the most important demographic characteristics of the regions that give a picture of their dynamism and economic potential. Then we look at the sectoral structure of the regional economic bases, their land resources and the level of economic and social infrastructure. On the basis of this analysis we arrive to some conclusions for the intensity of regional disparities in each country, the pattern of geographical distribution of activities and the type of economic interaction.

2. Basic Regional Indicators

The spatial dynamics of the economies under examination can be analyzed on the basis of demographic indicators such as regional population change, density and urban structure, since these indicators are known to be highly correlated to the level of

economic activity. Table 1 presents information on basic demographic indicators for the five Albanian, nine Bulgarian and thirteen Greek NUT II level regions. On the basis of these information we are in a position to draw, in broad lines, the existing spatial pattern of development in each country.

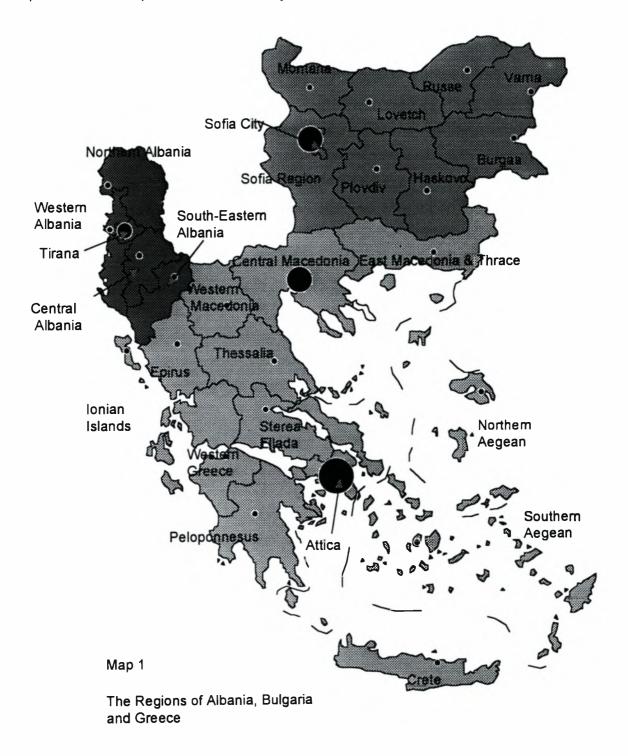


Table 1 Regional Population Levels, Change, Density and Urbanization Level

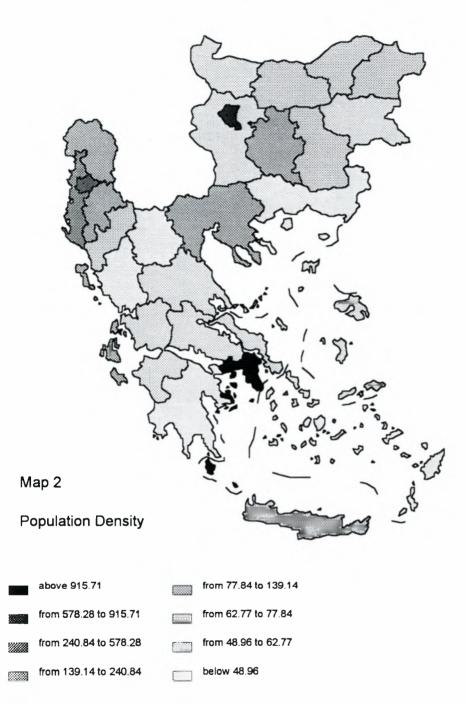
						Urban as
		Population	Composition	%Change	Density	% of Total
		1990		1960-1990	1990	1990
Albania	Total	3255800			-	
1	Northern Albania	726800	22,32			
	Western Albania	1174500				
	South-Eastern Albania	440800			71,68	
	Tirana	374400	11,50			, , , , , , , , , , , , , , , , , , , ,
	Central	539300	16,56		96,89	,
		1992		1962-1992	1992	
Bulgaria	Total	8472700	100	5,75		
j	Burgas	850900			' '	, -
	Varna	914600	10,79			70,50
	Lovetch	1015900	11,99			
	Montana	630500	7,44	-15,34		59,30
	Plovdiv	1218600	14,38			66,50
	Russe	767600	9,06	-3,71	70,80	57,40
	Sofia City	1182600	13,96	51,85	902,20	95,60
	Sofia Region	985000	11,63	-3,14	51,78	61,30
	Haskovo	907000	10,70	0,24	65,61	40,78
		1991	1991	1961-1991	1991	1991
Greece	Total	10259900	100	22,31	77,78	58,86
	East Macedonia & Thrace	570496	5,56	-7,73	40,28	39,78
	Central Macedonia	1710513	16,67	29,27	92,28	57,34
	Western Macedonia	293015	2,86	-4,14	30,97	29,19
	Epirus	339728	3,31	-3,65	36,85	30,75
	Thessalia	734846	7,16	5,67	52,09	
	Ionian Islands	193734	1,89	-8,86	82,79	26,19
	Western Greece	707687	6,90	6,29	61,85	45,08
	Sterea Ellada	582280	5,68	10,29	53,08	25,03
	Attica	3523407	34,34	71,21	929,22	93,19
	Peloponnesus	607428	5,92	-9,11	42,97	24,24
	Northern Aegean	199231	1,94	-21,72	51,67	27,58
	Southern Aegean	257481	2,51	15,47	48,71	34,98
	Crete	540054	5,26	11,75	64,42	42,47

Source:

Albania: Statistical yearbook of Albania 1961, 1971, 1981, 1991. Bulgaria: Population Census, NSI, 1962, 1972, 1982, 1992. Greece: Population Census, ESYE, 1961, 1971, 1981, 1991.

2.1 Regional Population Levels, Density and Change

According to the information of Table 1, the largest regions in Albania are Western Albania with 36% of national population and Northern Albania with 22% of national population. In Bulgaria, where we have a more even share of population among regions, the largest regions are Plovdiv (14%) and Sofia City (14%), while in Greece, where we find the greater variations among regions, the larger regions are Attica and Central Macedonia with 34% and 16% of national population respectively [see Map 1]. Looking at population density [Map 2], which is a measure of concentration of activities we observe that the spatial structure of the three economies appears to be concentrated in a limited number of areas, the most important being the national capital regions. Thus in Albania the population density of Tirana is over 2.5 times that of the national average, in Bulgaria the population density of the City of Sofia is more than 11 times the national average and in Greece the density of Attica is almost 12 times the national average [Table 1].

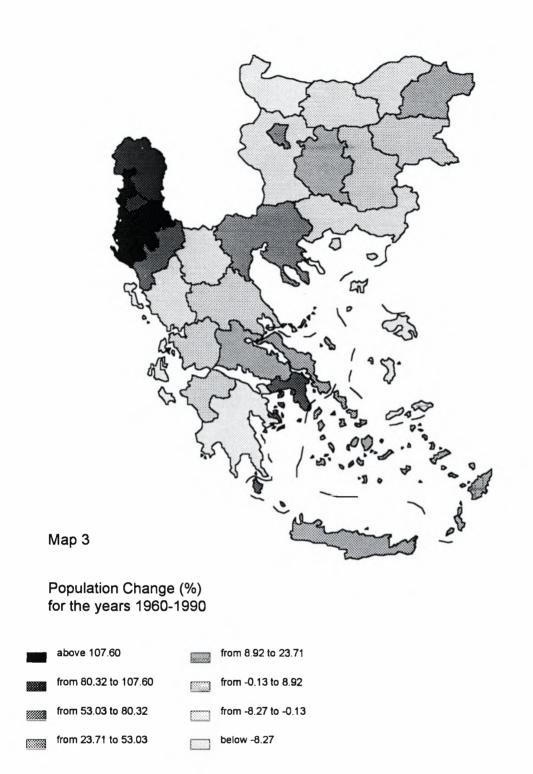


We also observe that besides the capital regions, a limited number of other regions show a concentration of population and activities above the national average, such as the coastal W. Albania regions (influenced by cities such as Duress) in Albania, the regions of Plovdiv and Varna (influenced by the cities of Plovdiv and Varna) in Bulgaria and the region of Central Macedonia (influenced by the relative weight of the City of Thessaloniki) in Greece.

Another interesting fact arising from this analysis is that the regions of each country that are adjacent to the borders have in general a lower concentration of population and activities than the national averages. Thus in the Greek-Albanian borders, the region of S.E. Albania has a density equal to 63% of the Albanian average, while the adjacent Greek regions of Epirus and W. Macedonia have a density equal to 47% and 39% of the national average respectively (Table 1).

In the Greek-Bulgarian borders the situation is more diverse. On the Bulgarian side the regions of Sofia and Haskovo have a density equal to 67% and 85% of the national average respectively, while on the Greek side the region of E. Macedonia and Thrace has a density equal to 51% of the national average. Two regions, one on each side, appear to have higher than average population density and significant concentration of activities. These regions are Plovdiv for Bulgaria and C. Macedonia for Greece. A closer examination of these regions however will reveal that the high density figure is greatly influenced by the weight of the regional capitals Plovdiv (which is a large industrial city) and Thessaloniki (which is an industrial and commercial port with a population close to 1 million). Both cities are the second largest in terms of size and importance in each country. The analysis of borderregions at NUT III level can reveal that the border areas of these two regions do not have a fair share of the dynamism of the regional capital. As a result it seems that the existing pattern of development in these three countries has left a wide area along their borders with a lower concentration of population, activities and economic dynamism.

Looking at the population change data for the last 3 decades in Table 1 and Map 3, we observe a similar pattern. The regional population growth in Albania has followed, as expected, the national trends with an important however differentiation. While all regions have grown with roughly similar rates, the region of S.E. Albania has experienced considerably lower growth rate equal to 59% of the national one.



Similar, and even worse, is the situation in the Greek regions adjacent to the Albanian borders. Population in Epirus has declined in the period 1961-1991 by -3.6%, while population in W. Macedonia has declined by -4.1%. An even greater decline of -7.7% has been recorded in the E. Macedonia and Thrace region bordering to Bulgaria. On the other hand, the region of C. Macedonia has recorded an increase of 29% (31% higher than the national average) due to the dynamism of the Prefecture and the City of Thessaloniki.

In Bulgaria the regions bordering Greece maintain the same diverse picture found earlier. The Sofia region has experienced a -3.1% decline of population while the population of the Haskovo region has remained (after some regressive movement) constant. The region of Plovdiv on the other hand, has recorded a 15% increase in population (3 times the national average) due to the dynamism of the city of Plovdiv.

Overall, regional population changes in the last 3 decades in Albania, Bulgaria and Greece show a significant differentiation attributed to two different sources. The first one is population growth differences at the national level, influenced by national factors. For reasons related to fertility and external migration, from the three countries Albania has the highest and Bulgaria the lowest national population growth rates. Obviously this fact is depicted on and affects the regional population profiles of the three countries. The second source of differentiation however (as shown after the elimination of national differences) arises from economic factors related to the productive dynamism of each region.

In broad terms, two important observations can be made from this analysis. First, the best performance in terms of population growth and consequently in terms of concentration of activities and economic dynamism over time is found in the capital regions and the regions with the larger cities. Second, the regions at the borders have in general fared worse than the national average in all countries.

2.2 Urban structure and Urban-Rural Distribution of Regional Population

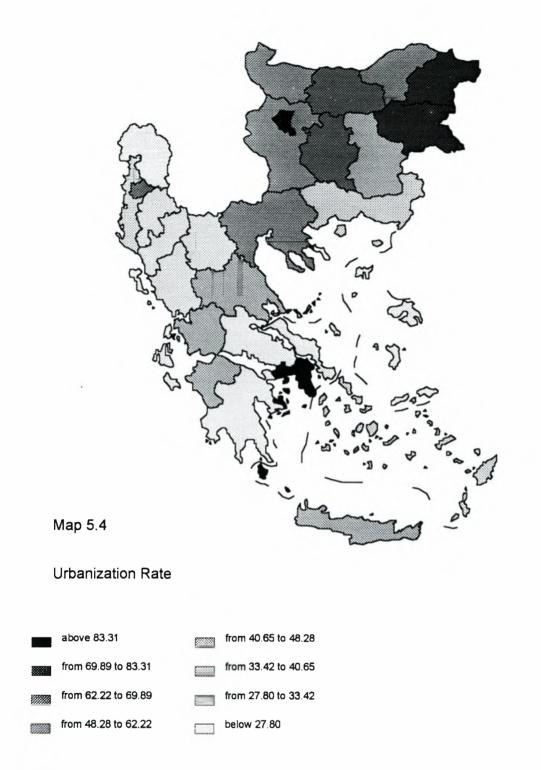
The urban structure in these three countries follows, more or less, the regional structure and is highly differentiated. The urban system is very concentrated in Greece, where Athens with over 3 million inhabitants accounts for 50% of the urban and 30% of the total population of the country. On the other hand, Albania and Bulgaria have a much more balanced urban system, since the City of Tirana accounts for 21% of the urban and 8% of the national population, while the City of Sofia accounts for 20% of the urban and 13% of the national population.

The rate of urbanization has been associated in the literature and has often been used as an indicator of the level of development. Although international comparisons

of urbanization rates can, to some degree, be biased as affected by cultural, social or even administrative factors, interregional differentiations are always a more accurate and safe measure of differences in the level of development.

Examining the urbanization rates by region in the three countries we find significant differences. First, at the national level we see that the three countries have a different urban-rural distribution of population. Albania has a very low level of urbanization while Bulgaria and Greece follow with modest and similar levels (67% and 59% respectively). These national differences affect in a considerable manner the regional picture [Map 4] with respect to the rate of urbanization. The Bulgarian regions appear to be more and the Albanian less urbanized, with the Greek ones being in an intermediate position.

Eliminating the national differences, we can get a better view of intra-national regional differences in urbanization rates. The picture here is similar to the one found earlier: Strong performance in the development areas associated with the capital regions and poor performance compared to the national average in the regions adjacent to the borders for the 3 countries.



C. The formation of Development axes

Based on the analysis made above, the structure and orientation of the principal transportation networks and the existing literature, we conclude that in the 3 countries the most dynamic part of economic activity is concentrated in limited geographical development areas that include (and start from) the metropolitan area and take the form of a development axis.

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In the case of Albania the development axis includes (mainly) Tirana and extends along the Adriatic sea coastal region, down to the Greek-Albanian borders. The Bulgarian development axis extends in a parallel mode to the Danube river and the Greek-Bulgarian borders from Sofia to the Black Sea coast including important cities like Plovdiv, Varna and Burgas. Finally the Greek development axis starts from Athens and extends to Thessaloniki, including the major cities in the intermediate zone, with weak extensions to Patras (southwest) and Kavala (northeast) [Map 5].

Analyzing the Balkan peninsula as a European macro-region, a strange but also interesting observation is that these development axes do not meet or cross anywhere. The Greek axis is vertical with an eastward orientation ('looking' at the Aegean Sea) since it takes the eastern part of the country, the Albanian axis is also vertical, but with a westward orientation ('looking' at the Adriatic Sea) since it is in the western part of the country and finally the Bulgarian axis is horizontal, with an orientation towards the Black Sea countries. Neither common orientation nor a point of interaction exists among the three axes of development. It looks like for each one of them the other two simply do not exist, which is an indication that the three axes have grown independently from each other for a long period of time. In a geographic region with no major territorial barriers, this fact can only be explained by the interruption of social and economic relations imposed on these countries by the post World War II realities.



3. The Regional Structure of Economic Activity

3.1 The Sectoral Composition of Employment by Region

The sectoral composition of employment has been considered to be also a measure of the development level of a country or a region. In general and with all other factors constant, high concentrations in the primary sector were considered to be an indication of low level of development, while high concentrations in the secondary sector and especially in manufacturing were considered to be an indication of higher levels of development.

There are two serious reservations for this type of connection made between the sectoral composition of employment and the level of development of a region or a country. The first reservation, which has a general application, is related to the increasing importance of the tertiary sector in modern economies with dynamic branches such as business services, banking, finance, recreation, etc., that tends to challenge the traditional view attributing development exclusively to the level of industrialization. The modern view and understanding of a developed economy is in broad lines a mix of high-tech industry and high levels of tertiarization.

The second reservation is more specific and has to do with the generally high rates of industrialization found in transition economies. Although in an open market economy an industrial share of employment in the range of 40% could be interpreted as an indication of economic strength and a source of accumulation and growth, in early-stage transition economies the same share may be interpreted as a source of adjustment difficulties and as an indication that the process of restructuring has not made significant progress or it is far from being completed.

With this in mind, we proceed our analysis of the sectoral structure of economic activity by region. Table 2 provides all the relevant figures. Maps 6, 7 and 8 give a spatial perspective of the share of employment in the primary, secondary and tertiary sectors of the economy by region in the three countries in the early 1990s.

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			Primary	Secondary Sector		Tertiary	T	>	Secondar	v Sector	ertiary		Primary	Secondary Sector		any	mary	Secondary	Tertiary
	1993	1993 Total	Sector	Total	Manufac	Sector	le	Sector -	Total N		Sector	Total	Sector	Total N	Aanurac.	DL	clor	Sector	Sector
Albania	Total	1433000	672000	435000	247000	0 326000 10	100,00	100,00	100,00	100,00	100,00		46,89	30,36	17,24 2	2,75	100,00	100,00	100,00
	Northern Abania	319000	166000	96000	38000	57000	22,26	24,70	22,07	15,38	17,48	100,00	52,04	30,09	11,91	17,87	110,97	99,14	78,54
	Western Albania	519000	244000	187000	104000	88000	36,22	36,31	42,99	42,11	26,99	100,00	47,01	36,03	20,04	16,96	100,25	118,69	74,53
	South-Eastern Albania	204000	95000	58000	38000	51000	14,24	14,14	13,33	15,38	15,64	100,00	46,57	28,43	18,63	25,00	99,30	93,66	109,89
	Tirana	174000	27000	65000	48000	82000	12,14	4,02	14,94	19,43	25,15	100,00	15,52	37,36	27,59	47,13	33,09	123,06	207.15
	Central	217000	140000	29000	19000	48000	15.14	20.83	6.67	7.69	14 72	100.00	64.52	13.36	8.76	22 12	137.58	44 02	97 23
	1992																		
Bulgaria	a Total	2662658	391332	1203615	1013902	1067711	100,00	100,001	100,00	100,00	100,00	100,00	14,70	45,20	38,08	40,10	100,00	100.00	100.00
,		264880	58522	108481	91200	97877	96'6	14.95	9,01	8,99	9,17	100,00	22,09	40,95	34,43	36,95	150,33	90,60	92,15
	Varna	288892	53383	111171	91405	124338	10,85	13,64	9,24	9,02	11,65	100,00	18,48	38,48	31,64	43,04	125,73	85,13	107,33
	Lovech	334725	54814	158916	140066	120995	12,57	14,01	13,20	13,81	11,33	100,00	16,38	47,48	41,85	36,15	111,42	105,03	90,14
	Montana	192703			76509	69278	7,24	9,16	7,28	7,55	6,49	100,00	18,60	45,45	39,70	35,95	126,53	100,55	89,65
	Plovdiv	356062			155923	129810	13,37	12 41	14,76	15,38	12,16	100,00	13,63	49,91	43,79	36,46	92,77	110,41	90,92
	Rousse	234082	55617		78956	87244	8,79	14,21	7,58	7,79	8,17	100,001	23,76	38,97	33,73	37,27	161,66	86.21	92,95
	Solia City	407200	4463		109611	236301	15,29	1,14	13,83	10,81	22,13	100,00	1,10	40,87	26,92	58,03	7,46	90,42	144,72
	Sofia Region	296875	30482	-	147946	103180	11,15	7,79	13,56	14,59	9'99	100,00	10,27	54,98	49,83	34,76	69,86	121,62	86,67
	Haskovo	287239	49672	1.38879	122286	98688	10.79	12.69	11.54	12 06	9 2 4	100.001	17 29	48.35	42.57	34 36	117.66	106.96	85.68
	1991	-										6							
Greece	Total	3632437	825814	981355	698998	1825268	100,00	100,001	100,00	100,00	100,00	100,00	22,73	27,02	19,24	50,25	100,00	100,00	100,00
	East Miscedonia & Thrace				37413	84017	6,45	12,27	5,01	5,35	4,60	100,00	43,22	20,95	15,96	35,83	190,09	77.54	71.31
	Central Macedonia	620079	-	-	146924	276181	17,07	19,11	18,96	21,02	15,13	100,00	25,45	30,01	23,69	44,54	111,96	111,07	88,64
	Western Macedonia	97158			17665	36192	2,67	4	2,85	2,53	1,98	100,00	34,00	28,75	18,18	37,25	149,55	106,42	74,13
	Epirus	96872		23267	12208	39711	2,67	4,10	2,37	1,75	2,18	100,00	34,99	24,02	12,60	40,99	153,90	88,90	81,58
	Thessalia	251407			45671	93999	6,92	11,02	6,77	6,53	5,15	100,00	36,19	26,42	18,17	37,39	159,19	97,80	74,41
	Ionian Islands	71452			6894	32675	1,97	2,96	1,46	66 0	1,79	100,00	34,17	20,10	9'62	45,73	150,30	74,40	91,01
	Western Greece	216867	-		28724	86388	5,97	10,28	4,65	4,11	4,73	100,00	39,14	21,03	13,24	39,83	172,16	77,83	79,27
	Sterea Ellada	179381			30016	58526	4,94	9,23	4,54	4,29	3,21	100,00	42,51	24,86	16,73	32,63	187,00	92,02	64,93
	Attica	1315631		4	318836	881755	36.22	2,17	42,39	45,61	48,31	100,00	1,35	31,62	24,23	67,02	5,98	117,04	133,38
	Peloponnesus	210547		_	22764	70014	5,80	11,73	4,45	3,26	3,84	100,00	46,01	20,74	10,81	33,25	202,38	76,76	66,18
	Northern Aegean	61325	-		4380	37198	69	1,61	1,10	0,63	204	100,00	21,66	17,68	7,14	60,66	95,28	65,45	120,71
	Southern Aegean	83157			9766	54935	2,29	0,91	2,11	1.40	3.01	100,00	9,07	24,87	11,74	66,06	39,88	92,06	131,47
	Crete	194102	87608	32817	17/37	73677	5.34	10.61	3 34	2 54	404	100 001	45 14	16.91	9.14	37.96	198.53	62 58	75.54

Table 2 Sectoral Composition of Employment by Region

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Albania: Statistical yearbook 1991 Bulgaria: Statistical yearbook 1982, 1993, NSI. Greece: Population Census 1981, ESYE, pp. 123, ESYE Population division 1991, Athens, 1994

Source:

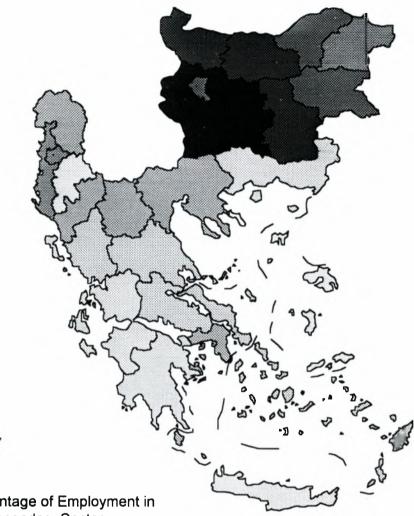


1. The Primary Sector

Overall, Albania as a whole, with the exception of the region of Tirana appears to have the greater dependence from the primary sector (46% share in total employment), while Bulgaria the smaller (14%). The regions with the greater dependence from the primary sector are the C. and N. Albania regions (in Albania),

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Russe, Burgas and Varna (in Bulgaria) and Peloponnesus, Crete and E. Macedonia and Thrace (in Greece) [Map 16].





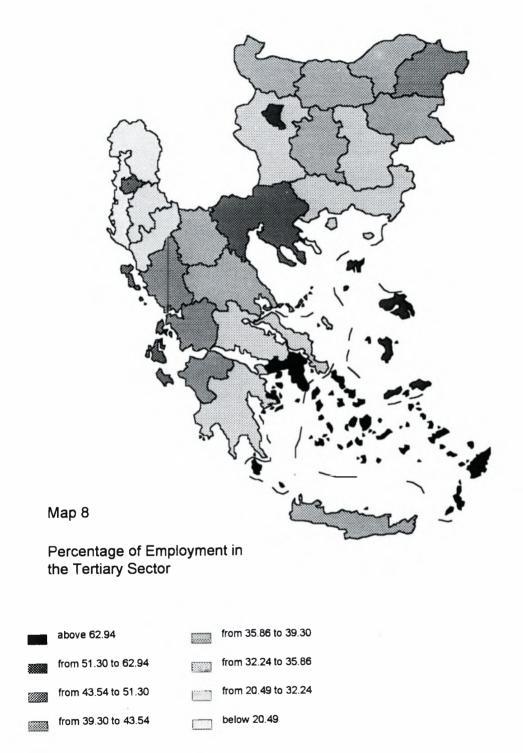
Map 7

Percentage of Employment in the Secondary Sector



2. The Secondary Sector

The highest national share of employment in the secondary sector is taken by Bulgaria (45% in 1992), and the lowest by Greece (27% in 1991), although the share of Albania in Manufacturing (17% in 1993) is smaller than that of Greece (19% in 1991). The regions with the higher share of employment in the secondary sector are Tirana and W. Albania (in Albania), Sofia region and Plovdiv (in Bulgaria) and Attica and C. Macedonia (in Greece).



Finally, in terms of employment in the tertiary sector, Greece has the highest national share (50%) and Albania the lowest (22%). The regions with the greater share of employment in the tertiary sector are Tirana and S.E. Albania (in Albania), Sofia City and Varna (in Bulgaria) and Attica and the N. and S. Aegean island regions (in Greece).

4. Evaluation of the Regional Employment Structures

A reasonable interpretation of the employment structure in the regions of the transition economies would be that, sectoral shares tend to indicate more the existing or available specialization of spatially specific production factors, rather than the actual productive capacity of the regions. This can be justified by the fact that the process of privatization and restructuring has not been competed yet, a perhaps significant part of employment positions are still subsidized (by an unable to continue to do so State budget) and as a result the equilibrium levels of regional employment by sector are unknown. In that sense, the high share of employment in the secondary sector and in manufacturing recorded in Bulgaria should be interpreted with caution. In fact, none of the industrial bases in the 3 countries should be considered as stable, safe and secure. On the one hand, the transition process will certainly create pressures on the regional industrial bases of Albania and Bulgaria, but on the other hand, the European integration process has created and continues to impose similar pressures to Greece that have negatively affected the size and structure of its industry. Judging from the Greek "internationalization" experience and the current situation of the Bulgarian and Albanian industry, one would expect that industrial shares in these countries will decline by the end of the century by - at least - a figure around 10%. The most severe impact of this de-industrialization process will be felt in areas specializing in "old" industrial sectors, declining in world markets, and in regions outside the main development axes of the country that will fail to attract an equal share of investment activity.

Taking into consideration that the capital regions already specialize in the tertiary sector, which, besides trade and services also includes (in various degrees) the new services such as banking, business services and stock markets that are necessary for

the expansion of economic activity, the argument about a polarized pattern of the transition process is reinforced. The border regions either depend on primary sector as in the case of Albania and Greece, indicating a lower level of development, or are excessively dependent on a declining secondary sector that warrants serious restructuring problems in the near future.

3.2. Regional Land Resources

Available land resources are in several cases considered to be a determinant of economic development. Examining the regional profiles of Albania, Bulgaria and Greece, one issue that should not escape our attention is the morphology of the territory and the availability of productive land, since both factors affect the attractiveness of different areas, the level of initial accumulation related to agricultural production, as well as all types of production costs associated to distance and accessibility.

In Table 3 and Map 9, we provide information about the morphology of the territory and the availability of land resources. On the basis of this information we can make the following observations:

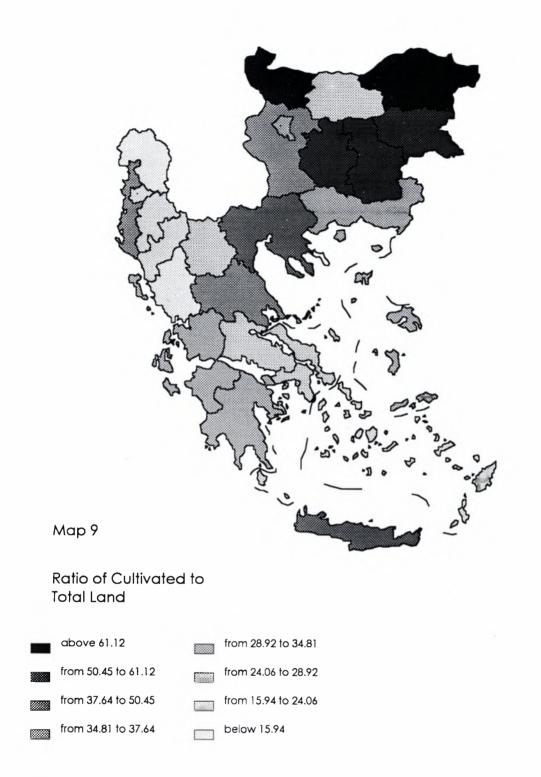
- Significant parts of each country's territory are covered by mountains. 36% of the Albanian, 31% of the Bulgarian and 42% of the Greek territory is mountainous. In general Greece is a more mountainous country than Albania and Bulgaria, while Bulgaria has the smaller share of mountainous territory from the 3 countries (Table 3).
- Bulgaria maintains the highest share of cultivated to total land (51%), followed by Greece (29%) and Albania (20%). These rates show that there are significant differences at the national level with respect to productive land availability among the three countries (Map 9).

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Table 3 Regional Land Resources

		Total surface	%of mount	ainous to total land	% of cultivated	to total land
		(in stremmas)	actual	index	actual	index
Albania	Total	28702900	36,68	100,00	20,15	100,00
	Northern Albania	9282080	50,13	136,65		
	Western Albania	6456490	21,11	57,55		
	South-Eastern Albania	6149060	32,35	88,20	18,00	
	Tirana	1249490	39,95	108,91	18,66	
L	Central	5565780	36,37	99,16	17,41	86,42
	I 					
Bulgaria		110993600	31,07			
	Burgas	14724300				
	Varna	11928600	17,29			128,69
	Lovetch	15150000	57,75			49,42
	Montana	10606800	46,92			121,26
	Plovdiv	13585400	14,83			98,95
	Russe	10842500	7,61	24,49		152,91
	Sofia City	1310800	62,67	201,69		65,04
	Sofia Region	19021100	34,23			72,28
	Haskovo	13824100	56,71	182,49	58,34	114,08
<u></u>	Takal	124057500	40.05	100.00	00.00	400.00
Greece	Total	131957500	42,25	100,00		100,00
	East Macedonia & Thrace	14157800	39,57			98,54
	Central Macedonia	19146200	21,65			134,16
	Western Macedonia	9451400	51,88			81,19
	Epirus	9203200	74,16			45,44
	Thessalia	14036600	45,52	107,73		120,11
	lonian Islands	2306900	23,75			115,12
	Western Greece	11350200	45,11	106,75		104,54
	Sterea Ellada	15549300	47,31	111,96		86,84
	Attica	3587200	0,00	0,00	26,42	88,39
	Peloponnesus	15490000	50,04	118,42	29,16	97,58
	Northern Aegean	3835900	34,22	80,99		99,81
	Southern Aegean	5286000	28,27	66,90		55,86
	Crete	8335900	49,06	116,11	37,70	126,14

- The examination of regional shares of cultivated to total land indicates significant variations in all countries. In Albania the region of W. Albania seems to have a better endowment of land resources than the other regions. In Bulgaria the better endowed regions are Russe and Varna followed by Montana (all along the Danube), while in Greece the highest ratio of cultivated to total land appears to be in Crete, C. Macedonia and Thessaly.
- The regions adjacent to the Greek-Albanian borders on each side have significantly lower than average share of cultivated to total land, due to the mountainous structure of the territory. The situation in the Greek-Bulgarian borders is mixed, C. Macedonia on the Greek side and Haskovo on the Bulgarian side have a better than average endowment of land resources, while E. Macedonia and Thrace on the Greek side and Plovdiv on the Bulgarian side have a worse than average. As indicated by available data, the shares of cultivated to total land per region are greatly affected by the morphology of the territory.



4. The Regional Distribution of Technical and Social Infrastructure

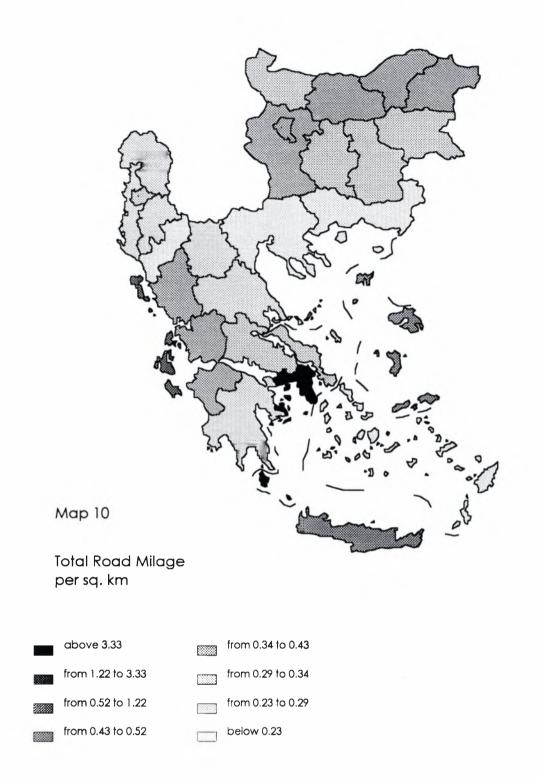
The provision of infrastructure is an important determinant of economic development at the national and regional level. Differences in the levels and the quality of infrastructure are found in the literature to be generating differences to the levels of development. Since however there is a tendency to overestimate (or underestimate) its importance, it should be made clear that infrastructure is a necessary but not a sufficient condition for development. Lack of infrastructure imposes serious constraints on the development process. On the other hand the existence of infrastructure facilitates growth and development, but does not warrants it. Other factors such as human capital, resources, a favorable geography, etc., must also be present.

For our purposes, we limit the analysis of infrastructure on measures of accessibility and quality of life presented in Table 4 as well as in Maps 10, 11 and 12. From the examination of this data we can make the following observations:

1. Transportation Networks

 At the national level, the road network per sq. km of territory appears to be roughly at the same level in Greece and Bulgaria (although the Bulgarian road network is considered older and of lower quality) and at a lower level in Albania (Table 4, Map 10).

At the regional level variations are low in Albania and Bulgaria and very strong in Greece. The capital regions are favored in general, due to the higher population density (something that is more evident in Greece), while the regions at the borders are in general with lower levels of roads per sq. km (something that is more evident in the case of Albania and less in the case of Bulgaria) [Table 4].



• When figures are examined in per capita terms, the above picture changes considerably as depopulated areas appear in a better position than those with a higher population density.

Table 4	Table 4 Regional Distribution of Social and Technical Infrastructure	of Social and I	echnical Inf	rastructure			
		Road Network per	per Km2 territory	Hospital Beds	per Capita (000)	Telephones per Cal	Capita (000)
		1993 Index	ex	1993	Index	1994 Index	Index
Albania	Total	0,24	100,00	2,80	100,00		100,00
	Northern Albania	0,26	108,33	2,30	82,14	10,00	76,92
	Western Albania	0,26	108,33	1,90	67,86		76,92
	South-Eastern Albania	0,20	83,33	2,40	85,71		100,001
	Tirana	0,30	125,00	6,30	225,00		230,77
	Central	0,24	100,00	2,90	103,57		84,62
		1992		1992		1992	
Bulgaria	Totai	0'33	100,00	10,28	100,001		100,00
)	Burgas	0,30	90,91	8,29		0	85,97
	Varna	0,34	103,03	9,88	96,11		94,63
	Lovetch	0,36	109,09	12,42	-		113,73
	Montana	0,32	96,97	10,34	100,58	299,00	89,25
	Plovdiv	0,32	96,97	9,45	91,93	308	91,94
	Russe	0,36	109,09	9,94	96,69	318,00	94,93
	Sofia City	0,36	109,09	10,97	106,71		149,55
	Sofia Region	0,36	109,09	9'63	94,26	272	81,19
	Haskovo	0,33	100,00	11,35	110,41	269,00	80,30
		1992		1991		1991	
Greece	Total	0,31	100,00	4,95	F		100,00
	East Macedonia & Thrace	0,19	63, 19	1,89			68,61
	Central Macedonia	0,18	58,63	5,95			98,96
	Western Macedonia	0,25	80,46	3,70	74,75	•	80,04
	Epirus	0,37	121,17	3,68			72,35
	Thessalia	0,27	86,97	3,21			74,43
	Ionian Islands	0,64	207,82	4,93	09'66	525,	109,15
	Western Greece	0,36	117,26	2,71		353	73,39
	Sterea Ellada	0'30	97,72	2,00	40	380	79,00
	Attica	3,33	1084,69	6,88	138,99	628,00	130,56
	Peloponnesus	0,27	88,27	5,45	110	403,	83,78
	Northern Aegean	0,44	143,32	3,05	61	857,	178,17
	Southern Aegean	0,16	53,42	3,69	74,	200,	41,58
	Crete	0,48	156,35	2,07	41,82	450,00	93,56
Source:							

Table 4 Benional Distribution of Social and Technical Infrastructure

Albania: Institute of Statistics, Tirana. Bulgaria: Statistical yearbook, 1992, 1993, NSI. Greece: Ministry of Environment and Planning, 1992, KEPE, Planning Subjects, No 24, Athens, pp. 74-79

2. Health services

- In terms of hospital beds per capita, Bulgaria appears at the national level to have by far the higher figure, with 10 beds per 1000 people. Greece follows with 5 and Albania with 3 beds per 1000 people (Table 4 and Map 11). Although availability is a crucial factor, equally crucial is the quality of the health services provided in each country. Given that Bulgaria has a tradition in this sector, we assume that, despite the difficulties and the pressures imposed by the transition process on public services, health services in Bulgaria are of comparable quality with those provided in Greece. Health services in Albania are, on the basis of available reports, of considerably lower quality.
- The regional differentiation of health services appears to be lower in Bulgaria and higher in Albania and Greece, where the general pattern favors capital regions, leaving the regions at the borders with a much lower than average figure (Table 4. To get a better picture of the regional differences, we should also keep in mind that capital regions have a clear advantage in the quality of health services provided, since some of them are only available in a few specialized places in the capital cities.

3. Telecommunications

- At the national level, in terms of telephones per capita, Greece appears to be in a significantly better situation with 481 telephones per 1000 people, followed by Bulgaria with 335 telephones per 1000 people. Albania presents an extremely poor level of development in the telecommunications sector with 13 telephones per 1000 people, which we believe is one of the lowest in the world (Table 4).
- The regional distribution of telecommunication services favors as expected the capital regions (Table 4) but also shows some peculiarities for each country. For Greece the highest ratio is in the Aegean Islands region (probably in an effort to compact isolation), in Bulgaria the entire northern part of the country appears to have better telecommunications than the southern, while in Albania the adjacent to the Greek border region of SE. Albania has a better than the other regions (except

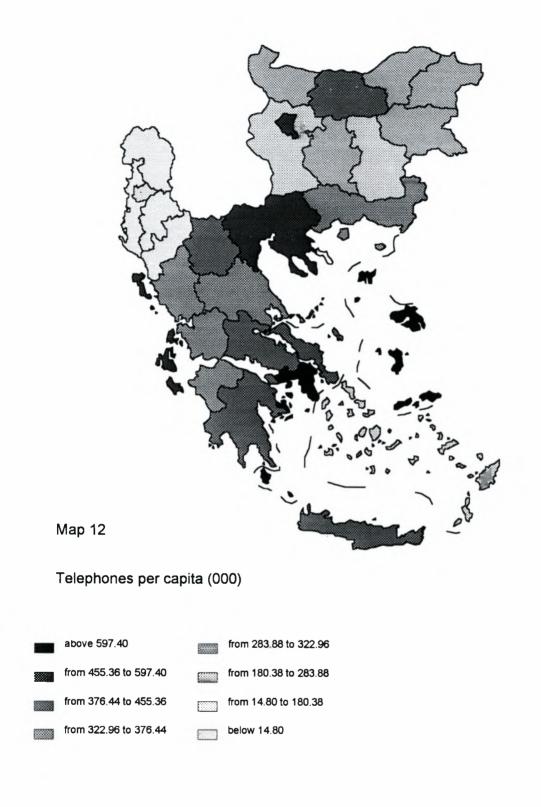
Tirana) record. Of course the national figure of Albania is so low that this differentiation does not appear significant in cross-country comparisons (Map 12).



Map 11

Hospital Beds per capita (000)





5. Intra-National Regional Disparities

Completing a study with the regional profiles of Albania, Bulgaria and Greece, it would be interesting to examine and compare the level of intra-national regional disparities in an effort to assess which country has the highest level and to what extent these

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disparities are attribute to unequal regional endowment of resources or policies at the national or regional level.

In order to do this, we construct for each country and for a number of regional variables a measure of regional disparities called *coefficient of variation*. The coefficient of variation is equal to the standard deviation of each variable divided by its mean. A higher value of the coefficient indicates a (relatively) higher level of regional disparities, while a lower value of the coefficient indicates a (relatively) lower level of regional disparities. We have estimated the coefficient of variation for a number of regional variables that are highly correlated to the level of development, for the regional employment shares in the three production sectors, for the basic infrastructure variables and the variable of available land resources. The results are given in Table 5. On the basis of these results we can make the following observations:

		Regional	Coefficien	t of Variation	ו (ס /x)
			Albania	Bulgaria	Greece
			σ/χ	σ /x	σ/χ
Population	%Change	1960-1990	0,2448	3,1605	3,1973
	Density	1990	0,6641	1,7394	1,9914
Urban as % of To	otal	1990	0,4461	0,2242	0,4693
Regional	Primary	Sector	0,4004	0,4334	0,4364
Composition	Secondary	Total	0,3289	0,1249	0,1954
of	Sector	Manufac.	0,4238	0,1861	0,3647
Employment	Tertiary	Sector	0,4784	0,1910	0,2716
Road Network pe	0,1442	0,0667	1,5146		
Hospital Beds pe	r Capita (000)		0,5668	0,1167	0,4185
Telephones per C	Capita (000)		0,5801	0,2219	0,3719
% of cultivated to	total land	actual	0,4829	0,3307	0,2666

Table 5 Measures of Intra-National Regional Disparities for Albania, Bulgaria and Greece

- In terms of the regional variables that are closely associated to the level of economic activity and development (population change, population density and urban-rural distribution) Greece clearly has the higher coefficient followed (in 2 out of 3 cases) by Bulgaria. As a result, Greece seems to have the highest degree of regional disparities.
- This fact is compatible with (but not necessarily explained by) the theories of spatial inequalities and concentration (Williamson 1965, Petrakos and Brada 1989) that relate positively, and up to a point, the level of development of a country

to the degree of spatial concentration and regional inequalities. Also this fact is compatible (again not necessarily explained by) the fact that the three countries had for the last 40 years a different political system, if one is willing to make the assumption that capitalism and markets have a higher taste for efficiency, while central planning mechanisms a higher taste for equity.

- Examining the regional variations of the sectoral employment shares, we do not observe a clear pattern. Albania has the smaller variation in the regional shares of employment in the primary sector and the highest in secondary and tertiary sector. Bulgaria has the smaller variations in the regional shares of employment in the secondary and tertiary sector, while Greece is in an intermediate position with respect to these sectors.
- This can be taken as an indication that the higher levels of regional disparities found in the case of Greece cannot be sufficiently attributed to regional specialization differences in the secondary and tertiary sector, since these differences are (comparatively) not that high. This is not the case in Albania, where regional differences in sectoral specialization are high and therefore expected to affect regional disparities. Finally Bulgaria is in one sense in a similar position to Greece. The level of regional disparities, which is close to that of Greece, cannot be sufficiently explained by the low level of regional differentiation of sectoral employment shares.
- Examining the coefficient of variation for the infrastructure variables we find Greece and Albania to record the highest regional variations and Bulgaria the lowest.
- Finally, the coefficient of variation for the variable measuring the regional endowments of productive land (the ratio of cultivated to total land) is lower in Greece and higher in Albania.

A reasonable interpretation of these findings should be in our view along the following lines:

1. The higher level of regional disparities in Greece cannot be attributed to greater differences in regional specialization or more unequal land endowments (where the

coefficient of variation is relatively low or the lowest), but rather to more biased development policies that have given for decades (intentionally or not) priority to the metropolitan area of Athens. One indication of that is the relatively high coefficients of variation found for the infrastructure variables.

- 2. The relatively low level of regional disparities in Albania is expected to increase in the future, either following the predictions of the regional development models, or the more recent theoretical developments in the transition literature (Petrakos 1995). Existing regional disparities can be attributed to unequal endowments of land resources, to strong regional differences in the sectoral specialization of employment and the relatively biased policies with respect to infrastructure.
- 3. Finally for Bulgaria the modestly high level of regional disparities cannot be convincingly explained by any of the above mentioned factors, which, with the possible exception of regional land endowments, have a low coefficient of variation. A possible explanation of regional disparities may be the presence of a significant in size Moslem-Turkish minority with low degree of assimilation within the Bulgarian society. For the future, the expectation is that disparities will rather increase, as the costs and benefits of the restructuring process are not equally spread in all regions.

6. Summary and Conclusions

The analysis in this paper reveals that the regional structure of Albania, Bulgaria and Greece is, in various degrees, characterized by concentration of activities in the capital regions and by the formation of development axes that extend from the national capitals and include the most dynamic areas of the countries. The Albanian development axis is vertical, includes Tirana and extends along the Adriatic coast, the Bulgarian axis is horizontal and extends from Sofia to the Black Sea ports of Varna and Burgas and the Greek development axis is vertical and extends from Athens to Thessaloniki along the Aegean coast. Due to the interruption of relations among the three countries imposed by the post World War II realities, these axes do not meet or cross anywhere, limiting the prospects, the intensity and the benefits of cross-border cooperation.

As a result of the spatial dynamics in the region with respect to the development process, a wide stripe of land along the Greek-Albanian and the Greek-Bulgarian borders, has been left with lower levels of economic activity and development. The Greek border region with Albania and Bulgaria is among the two poorest regions of the E.U., with a per capita GDP less than 40 percent of the Community average. It is estimated that the respective GDP per capita in the Albanian border region with Greece is only a small fraction of that, while that of the Bulgarian border region is considerably less than the Greek one. As a result the development gap is wider between the Greek - Albanian than the Greek - Bulgarian border regions. Predominance of agricultural production, handicraft organization of manufacturing production, perimetric to the national development axes location, limited accessibility to the national and European markets and low levels of economic infrastructure, appear to be the main reasons for these regions lagging behind the national economies.

Although it is difficult to imagine what course of development these border regions would have if they were closely interrelated, it can be claimed almost with certainty that disconnection between them has seriously contributed to their peripherality. A closer interconnection between the three border regions seems that will result to significant benefits to all of them although not necessarily evenly distributed over space and time. The impact from specialization and exchange and the impact from factor mobility will be of the same nature with those realized at the national level, although of greater intensity due to the impact of the proximity factor. Heterogeneity of economic structure especially in the Greek-Bulgarian border regions will allow an increased exchange of goods and services. The reduction of border barriers will improve accessibility, and increase local demand that will lead to more intensive use of existing productive capacity and lower production costs in both sides.

In the Greek-Albanian border region where heterogeneity in production and opportunities for specialization seem to be limited, the greater benefits for both sides in the short run will be related to factor mobility. The low-wage Albanian labor force along with the existing investment opportunities, the Greek State investment incentives and the presence of the Greek minority will be the comparative advantages of the Greek-Albanian border region. As in a typical neoclassical model of economic

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interaction, the benefits for the Greek side are related to the expansion of business opportunities, while the benefits of the Albanian side are related to the expansion of employment opportunities. Here it should be realized that the Greek border region is the closest available EU territory to the Balkans. In that sense, policies should focus on turning the existing disadvantage of isolation to the advantage of proximity to the emerging Balkan markets, attracting mobile capital by offering facilities and infrastructure (translation center, law experts, specialized consulting services, telecommunication networks, etc) for its Balkan operations.

The sectoral specialization in the three countries is a possible source of spatial adjustments. In general the Albanian regions have a high share of employment in the primary sector, the Bulgarian a high share in the secondary sector and the Greek regions a high share of employment in the tertiary sector. Excessive reliance on primary sector employment characterizes low levels of development. On the other hand, and given the difficulties of the privatization and restructuring process in transition economies one should be careful in interpreting high shares of employment in the secondary sector, since in many instances they may be more a source of problems rather than a source of dynamism. Overall, capital regions have a higher share of employment in the tertiary sector and a better mix of activities. On the other hand, regions at the borders either depend on the primary sector as in the case of Albania and Greece, or are excessively dependent on a secondary sector burdened with serious restructuring problems. These spatial differences in sectoral specializations are expected to intensify regional disparities with the process of transition.

Significant differences are also found to exist among countries with respect to the level of endowments in land resources as well as the level of infrastructure. In general capital regions fare better and regions at the border are in an inferior position compared to national averages.

Intra-National regional disparities are higher in Greece, lower in Bulgaria and even lower in Albania. The high rate of disparities in Greece is less likely to be attributed to regional differences in land resources or sectoral specialization of employment and more likely to be related with biased development policies at the national level. On the contrary, existing regional disparities in Albania are more likely to be attributed to unequal endowments of land resources and strong regional differences in sectoral specialization. For Bulgaria there is no apparent explanation of the modestly high level of regional disparities, with the possible exception of the existence of a significant in size, but slowly assimilating Turkish minority.

Unless policy measures are taken, the regional disparities in the transition economies are likely to increase, resulting to a further polarization of activities, since the costs and benefits of transition are not expected to be evenly distributed over space. A more polarized spatial structure however, will marginalize even further the regions located at the borders, reducing the scope, the intensity and the benefits of crossborder cooperation.

From this analysis two points become in our view clear and deserve consideration from the policy making point of view. For the first time after its membership in the EU, a real opportunity is given to Greece to effectively deal with the difficulties and the pressures imposed by the process of European integration on its economic structure. This opportunity is related to the prospect of gradually re-composing the economic space in its vicinity with the creation of a regional Balkan market, in which it will have a central and highly influential role. For the first time also in the post-war period, a real opportunity is given to the Balkan countries to interact and cooperate without systemic or military block barriers, leaving the level and type of their relations to be an affair of markets, preferences and geography.

From the strategic point of view, the long-term interests of Greece and the other countries in the region require stable relations, successful implementation of the policies of transition and a policy mix promoting the unification and coherence, of the European economic space, the development of the European Southeastern region and the facilitation of cross-border cooperation. Since Greece, from all the other Balkan countries, has the higher "degrees of freedom" in influencing policies for the region, it has also the greater responsibility for promoting them.

The appropriate policy mix should include, first, a steady and energetic support to the efforts of all Balkan countries *to join in the future the EU*, according to the progress they make in the requirements and the criteria set. This policy is a cornerstone for the future of the Balkan region and it is the only one that allows in the long run the

unification of the Balkan and European space and the better accessibility and connection of Southern with Northern and Western Europe.

Second, it should include the promotion of a EU strategic development plan for the Balkan region at various spatial, operational and sectoral levels with the active participation of Greece and a special emphasis on the issues of intra-regional cooperation and integration. This development plan should include effective transportation and telecommunication networks that will allow the integration of the existing development axes, or areas in the Balkans. Among the priorities of the plan for infrastructure development should be the extension of the main Greek transportation axis so that the Trans-Balkan routes of Athens-Thessaloniki-Sofia-Bucharest and Athens-Thessaloniki-Skopjie-Belgrade will soon be created. Two more vertical axes will have to be promoted, one from Patras to Tirana through loannina integrating the Northwestern Greek regions with Albania and a second connecting Alexandropolis with Burgas, Varna (and Constantza) in the eastern part of the region. These vertical axes along with the two horizontal Igoumenitsa-Alexandropolis-Constantinopole (Turkey) and Duress-Tirana-Sofia-Constantinopole, will increase the accessibility of all (and especially the remote) regions to the emerging market and improve the coherence of the Balkan economic space. In general development policies should be structured in such a way as to reveal the special weight of Southeastern Europe as an emerging regional market.

Finally, the appropriate policy mix should include the *promotion of cooperation in the Greek-Albanian and Greek-Bulgarian border regions* through INTERREG II and PHARE CBC programs, with a greater emphasis however on the institutional aspects of local level cooperation. Besides programs of infrastructure development, productive restructuring and soft measures that are of course necessary, the creation of an Association for the Greek-Albanian and another one for the Greek-Bulgarian border regions consisting of Local Authorities, representatives of productive and scientific organizations, local development agencies and Central State representatives, is considered at this stage a major step towards a permanent and more efficient type of cooperation.

The impact of these policies will be of great important for Greece. First, they lead to the removal of isolation from the EU countries with the unification of the European economic space with long lasting implications. Second, they shift in the long run the gravity center of the EU to the south and east and contribute to the creation of a sizable regional market. Existing evidence shows that this market improves the terms of economic integration for Greece (Petrakos 1995c) since it allows specialization and comparative advantage in different sectors than those existing with the EU and provide a large market to a number of Greek products, that because of distance and strong competition, are unable to penetrate the North European markets. Third, they shift the economic development axis of the country to the north, contributing to a more balanced spatial structure of the economy, giving also Thessaloniki the opportunity to develop to a major metropolitan financial, commercial and transit center in the Balkans. Finally these policies may also be the best available policies of regional development, especially for the border region of Northern Greece, to the extent that they convert the external borders of the country from regions of isolation to regions of intensive economic relations and European 'inland'.

The impact of these policies, the promotion of regional cooperation and integration in the Balkans and the strengthening of economic relations of the other countries with Greece is also beneficial for them, irrespectively of the support that Greece may provide to them in the EU decision making bodies. First, it is the employment positions created by Greek direct investment in the region and the transfer of know-how by the more experienced and exposed to international markets Greek enterprises. Given the relatively small size of Greek enterprises, their presence and success in the other Balkan countries does not dominate their markets leaving enough ground for the development of private domestic enterprises. Second, it is the permission (by the "bending" of migration rules) to a large number of economic migrants from the neighboring countries to work in Greece, taking-off the pressure from the labor markets and the policy makers and allowing them to proceed with privatization and restructuring without a strict condition of employment protection imposed on them. The stock of economic migrants in Greece also contributes with its remittances home to a significant increase of personal and per capita income (especially in Albania). Third, the process of internationalization of these countries is in fact a process of integration among unequal partners that leads in several cases to a shrinking production base and a shift of specialization and comparative advantage to traditional and labor or material-intensive sectors. It seems that Greece provides a market which is closer, offers opportunities for intra-industry trade, which reduces pressures for severe sectoral shifts in production (Petrakos 1995c) and has in general lower standards and requirements than the Western European ones and greater room (due to cultural preferences) for the exporting industries of neighboring Balkan countries. Finally, given that existing regional disparities will increase by the transition process, as the costs and benefits of openness and restructuring are not evenly distributed over space, cross-border cooperation may be the only feasible development policy available for the perimetric border regions, in the absence of any substantial resources for a more active regional policy.

The impact of these trends and policies may also be beneficial for the EU, that may find a possible answer to the peripherality condition of its southeastern part. Letting geography to drive economic relations and trade preferences and allowing or encouraging the formation of regional markets with significant intra-regional activities at the edges of the single European space (that is anyway too large to be homogeneous), is a possible way to promote a spatial spread of development and avoid further concentration of activities and power to existing core regions, that would require a greater effort and allocation of resources in the form of structural and regional policies to be impeded. Given that a Europe of macro-regions is slowly emerging, the attraction of the bulk of international mobile investment to the technologically advanced Western European countries can only be balanced by the Balkan region on the basis of intensive relations, emerging markets opportunities and a strategic development plan that will reveal the new role of the region in connecting Europe with the Mediterranean basin and the Black Sea countries.

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