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38TH CONGRESS OF THE EUROPEAN REGIONAL SCIENCE ASSOCIATION

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REGIONAL (IM)BALANCES IN TRANSITIONAL ECONOMIES: THE CROATIAN CASE

Abstract

The authors attempt to give answer to the following question: in what way transitional process influences the balance of regional of the countries in transition. To this end, regional processes in Croatia in the pre-transitional as well as in transitional period, divided in the sub periods of 1965-1971, 1971-1991, 1991-1995, are analyzed. The position of 22 Croatian counties on both individual and overall basis is investigated according to 32 indicators and by the means of the PROMETHEE method. The integral approach to the analysis is implemented and thus the indicators (criteria) are of economic, social, cultural and environmental origin.

REGIONAL (IM)BALANCES IN TRANSITIONAL ECONOMIES: THE CROATIAN CASE

1. INTRODUCTION

The paper deals with the regional balance, or more precisely, with the spatial development balance. It is determined by social, economic and natural elements and it is therefore a very complex phenomenon. Moreover, it is influenced by the changes occurring in the continuos development of nature, economy and society which makes it also a dynamic phenomenon.

The complexity of regional balance can be seen through economic, demographic, social and ecological balances. Economic balance, regardless of various concepts advocated by different economic theories, implies, in general, such a state of an economy where the markets of all goods and services are in balance simultaneously. In other words, the producers are willing to supply exactly as many goods and services as the buyers are willing to buy. Demographical balance is analyzed from the standpoint of biodynamic balance or the balance of demographical structure (e.g. the harmony in the number of man and women, the harmony between the mortality and birth rates, number of immigrants and emigrants etc.). Social balance refers to the balance between the three areas of social development (i.e. conditions of life, conditions of work and social conditions) as well as to the bringing into accordance both each of them and all of them together with the material basis of the economy and society. Ecological balance, either Haeckel's (biological balance), meaning the harmony of nature and biological units in a particular natural standing, or the modern one, more complex and referring to the harmony between human needs and natural capacities in the dynamic development in a particular environment, always has a common requirement for a harmony (balance) as a coexistence without threats for the environment.

Spatial regional balance, which is investigated in the paper, tries to point out potential harmony of each and all economic sectors in a particular space and between regional units of a unique national territory. In fact, it is a twofold balance. Firstly it implies the balance between economy, nature and society which is permanently expressing through the process of progress, social content and healthy environment. Secondly, it is the balance between

individual regional units regarding economic development, natural resources and social content.

As far as methodology is concerned, it is of utmost importance to determine the notions of balance and imbalance. This analysis is related to the latter consideration, i.e. to the regional (im)balance between regional units. Balance is analyzed through social, economic and natural values of regional units in the Republic of Croatia.

The conditions of social, economic and natural values in a certain region is recorded in a particular moment of time. However, scientific research tends to analyze the process these conditions are going through i.e. to analyze the change of the conditions over time. Considering the state and quality of statistical data, such an analysis is quite limited with the methodological accuracy of data necessary for comparison in different periods of time. Thus, during the analysis preparation period it was determined that the basic time period of the analysis would be the period from 1971 to 1991 for all the phenomena, while some of them would be analyzed also in the periods between 1965 and 1971 as well as between the years of 1991 and 1995.

The other sensitive point of the analysis is the choice of the regional territorial unit. From the standpoint of regional balance analysis it seems quite useful to take a region satisfying nodal and regional principles as a basic spatial unit. However, taking into consideration the implementation of physical planning strategy of the Republic of Croatia, based on the county regional structure, it was quite reasonable to choose a county as a basic regional territorial unit for the analysis of regional (im)balances. Nevertheless, in some cases the county system will be substituted with certain functional spatial units (as much as statistical data will allow).

2. REGIONAL SYSTEMS IN THE REPUBLIC OF CROATIA

The analysis of overall national territory according to the elements of natural homogeneity points out that Croatia is divided into two typical natural environments: Panonian and Mediterranean. These two can be referred to as supra regions. Natural regionalization at the supra region level is characterized with the most homogeneous natural elements while all subsequent divisions produce less homogeneous territorial and natural units.

The first recognizable level of division according to the functional regionalization principle establishes macro regions. In the Croatian case, these are: Slavonia, Middle Croatia, Lika and Upper Adriatic and also Dalmatia. Functional regionalization at the macro region level implies the most distinguished functional gravitation which reflects the development level of Croatian cities as well as historical and cultural values at this level of regional system.

Political regionalization starts with the county level. Croatian modern political structure take over the motion of county from the historical heritage, associating it, at the same time, with a contemporary political role and a completely different spatial screen. The Republic of Croatia is divided into 21 counties, while each of them is further divided into districts and municipalities. As far as the administrative structure is considered, the county is the lowest level of state authorities, while the district represents the highest level of local governance.

Political regionalization is the result of political will and consensus, and is based on the reasons of optimal political division. Thus, division criteria of natural and functional regionalization are quite strong and clear on the top, and, in the case of political regionalization, at the lower part of the regional system pyramid. In fact, detailed analysis of three socially most recognizable regionalization principles shows that these are not mutually exclusive at all. On the contrary, they seem to be highly corresponding, especially in the middle part of the pyramid, as shown in Figure 1 (Filipić, Šimunović 1995). Slight differences are not so significant and are more important for particular professions than for the spatial organization in general.

Figure 1. Structure of Croatian territory according to some regionalization principles

Regionaliz. Division types of space	Natural Regionalization (physiognomic)	Functional Regionalization	Political Regionalization
Level I. Level II. Level III. Level IV. Level V.	Supra region A Region Mezzo region C Micro region	Macro region Region Mezzo region Micro region	County (region) County (region) District (mezzo region) Municipality (micro region)

Considering the correspondence of regional systems, three areas can be distinguished:

A(I, II) - indiferrence area - possible correspondence,

B(III) - desired area - useful correspondence,

C(IV, V) - conflict area - weak correspondence.

The objective of the above overview is to point out the favourable features of the existing organization of national territory for the purposes of the analysis, planning and management of regional development. As the matter of a fact, both the analysis and the prospect of regional (im)balance in Croatia are based on the functional and political regionalization (of course, within the limits imposed by the statistical data).

3. REGIONAL STRUCTURES IN THE REPUBLIC OF CROATIA

This part of the paper is focused on the analysis of the development of particular dimensions of a complex regional structure in Croatia in the pre-transitional period. The analysis encompasses the investigation in population, urbanization process, regional economies development, social and cultural events, achieved standard of living and the level of (im)balances in the regional development in Croatia. Here are the most important findings.

Number of inhabitants in an area is primarily determined with the natural population growth and migrations. Since natural population growth was relatively low in Croatia in general, the main driving force of demographical growth or decline in particular regions were the migrations. According to the criterion of population growth, all Croatian counties in the period from 1965 to 1991 can be divided into three main groups. The first one is that where the number of inhabitants absolutely decreased (eight counties); the second refers to the counties where the number of inhabitants increased in absolute terms, but which relative share in the total population of Croatia simultaneously decreased (six counties), and the third group consists of the counties with the population growth in both absolute and relative terms (seven counties). Consequently, a new demographical chart of Croatia was created, with completely changes territorial distribution of population. The number of inhabitants has silently grew in the counties developing around big cities, causing, at the

same time, population drain in their wider surroundings. The decrease in the number of inhabitants in the counties situated between big cities proved to be almost a rule.

Unfortunately, the period after the year of 1991 (the last census) was characterized with even more emphasized tendencies of both absolute and relative population growth in four counties with the four biggest cities of Croatia (Zagreb, Rijeka, Split and Osijek) with simultaneous "deserting" of the areas between these cities/counties. The process was considerably encouraged by the people displacement from the war areas, since a lot of them was given shelter around big cities and later on they decided to make their residence there a permanent one.

As a consequence, there was an intensive decrease in the number of the population involved in agriculture, while the number of urban population raised significantly. Taken altogether, these processes changed the economic structure as well as overall macroeconomic trends. There was ca 54.7% of total Croatian population living in the cities in 1991, comparing to only 30.4% in 1953. Moreover, statistical data on the population (not) involved in agriculture point out a massive transfer to the non-agricultural zone causing considerable difficulties in achievement of development optimum in both particular regions and Croatia as a whole. For example, there was seven and a half time more population involve in agriculture in Croatia in 1953 than in 1991 (3.086,305 to 409,647). Naturally, farmland was reduced as well.

An outstanding feature of demographical trends in Croatia is an extensive number of those who left for a temporary employment abroad, due to hard economic conditions in the country. It further accelerated the population drainage of undeveloped regions. In other words, regional pattern of leaving country was in accordance with the territorial distribution of income, resulting in ever deepening imbalances in regional distribution of population. The largest number of the Croatians living abroad on a temporary employment basis was recorded in 1991 (285,216).

Finally, as a synthesis, it seems necessary to establish a relationship between population and the territory it is living in. Croatia has relatively small population regarding it territory, but the regional distribution of population is not balanced. In fact, population density was

above average (113.8) in only one macro region (Middle Croatia) in 1991, while in the other macro regions it was below (Slavonia 79.4) or far below average (Dalmatia 67.5; Lika and Upper Adriatic 59.0). Therefore, demographical, economic, social, cultural and other aspects of spatial capacities are brought into the question as well as objective conditions for attainment of development balance in the entire national territory of the Republic of Croatia.

As far as urbanization is concerned, contemporary development in Croatia witnessed two parallel urbanization processes: demographical and economic. They always accompany and encourage each other. The process of demographical urbanization usually initiates economic urbanization in less developed areas. However, they are influenced by numerous factors and it is very hard to establish universal rules.

Large Croatian cities (Zagreb, Split, Rijeka and Osijek) determine the economy and its structure in their gravitation areas. Geographical indentedness of the Croatian territory along with insufficient traffic connections did not allow homogenization of the Croatian economy in the past. Thus, closed economies developed within each macro region while cities were merely providing internal economic balance. Modern development processes in economy and society are also mostly based on the strength and the development of cities. Over 70% population is situated in the cities, further strengthening the role of the cities in the present and future development of the Croatia. It can therefore be stated that contemporary model implies the maintenance of economic balance through cities thus activating the comparative advantages of the region.

Analyzing economic base of regional (im)balances, it can be claimed even at this point that the processes such are intraregional migrations, transfer of population involved in agriculture to other economic sectors, urbanization and others, have had multiple effects. They improved the standard and conditions of living but, at the same time, exerted unfavourable influences on the economic and social development not only of certain regions but also of the Croatia as a whole. This statement is based on the fact that structural changes and consequently initiated process of increased migrations towards urban areas caused a kind of discontinuity between demographical and economic components of development. On one hand, in the immigrating counties, there was an ever increasing

number of working-age population. Its employment provoked the process of an extensive economic growth based on the maintenance and even enlarging of traditional labour-intensive industrial structure. The share of the employed in these areas in relation to the total number of employed in Croatia was increasing all the time. On the other hand, emigrating counties permanently lost the most important segment of working-age population. Moreover, productive funds and investments were directed only to the economic activities of low profitability and efficiency since they were the only left in these counties with remaining low skilled labour.

Presently, the development process has reached the point where the issues regarding territorial (interregional) redistribution of labour and thus of migration flows as well, have to solved. Traditional activities have completed their role in the developed regions for they had changed their social and economic structure. Nevertheless, they have lost their power of development driving force and multiplicator in the process. Therefore, changed regional conditions in the developed regions demand new high-growth economic branches as well as activities implying high-level of organic composition of capital and of technical and technological standards. Less developed regions should focus on sophisticated activities that are in accordance with their natural, social and cultural environment. In other words, assuming that the problem of regional development was directly dependent on its economic structure (dynamic changes in the sectoral development poles), the solution to the problems of less developed regions is to be sought in the identification of appropriate development poles.

Social and cultural factors have also to be analyzed for the development planning of a certain area since their influence on the overall social changes and development are equally important as those of traditional development resources (capital, labour, technology etc.). The processes of change of political, economic and overall social structure in Croatia largely depend upon all those elements that have been transferred and internalized through the history and institutionalized as a part of nation's cultural heritage. Based on the data on migrations and stratified structure of Croatian society, the authors have indirectly identified the "cultural matrix" of traditionalism of Croatian society. It points out strong cultural values of a rural culture and a mentality of pre-industrial era, even in the developed counties. Taking into account changes to be done, it can be concluded that the existing

cultural situation is functional from the standpoint of re-establishment of traditional national structure and, at the same time, dysfunctional from the standpoint of modernization of society.

Croatian cultural heritage is very rich and its cultural infrastructure is well-developed. Still, the problems appear because of the insufficient skilled labour, finances and space, threatening with the devastation and ruining of the inherited cultural wealth. All these problems have recently been even more magnified due to the war devastation. From the regional (im)balance point of view, cultural network is not equally spread over the Croatian territory.

At last but not least, the analysis of education as an integration node of the entire social system pointed out that the quality of education systems and its adaptability to structural changes are not satisfactory. In fact, ever since 1981 there is a strong negative correlation between the domestic product and the professional education of adults in all the counties except in those of four big cities. The analysis also pointed out rather unequal distribution of young in high-schools, starting from 21.7% in the least developed, to 89.1% in the most developed county.

The analysis of the standard of living, implying the conditions of both life and work, showed that its neglecting could create numerous imbalances. Standard of living is very important because it is correlated with the level of economic development. In fact, material basis of the achieved level of development makes the development of the standard of living possible. Of course, the relationship between two phenomena is reciprocal. Unfortunately, there is not enough valuable statistical data on conditions of work (such as working life, number of working hours, length of work week and number of the days of leisure) as to conduct a serious analysis. However, it is not the case with the conditions of life. The following indicators related to this segment of the standard of living will be used in the multicriterial evaluation of the development of Croatian counties: 1) number of inhabitants per an apartment; 2) number of inhabitants per a passenger vehicle; 3) number of inhabitants per a km of modern road; 4) number of inhabitants per a TV; 5) number of inhabitants per a phone; 6) number of inhabitants over a highly skilled medical worker

(doctors+dentists+pharmacists); 7) household water consumption per capita (in m³); 8) household waste waters per capita (in m³).

4. MULTICRITERIAL EVALUATION OF THE LEVEL OF DEVELOPMENT OF COUNTIES AND MACRO REGIONS

Taking into account all the above listed and explained facts, in the final phase of the analysis of conditions and processes that have influenced the (im)balances in the Croatian territory in the last thirty years, a summary estimation of relative development level of counties and Croatian macro regions was done for two characteristic years of the observed period: the year of 1971 and of 1991. The estimation of relative development was obtained in the process of multicriterial evaluation based on a number of indicators (20 for the year of 1971, and even 35 for 1991), each of them representing particular dimension in a complex regional structure¹.

The multicriterial evaluation was done by the PROMETHEE method (Brans 1985; Saaty 1980). The procedures of determination of preference intensity of each indicator over the others as well as of determination of relative importance for each indicator (criterion) were carried out with the assistance of experts. Finally, inflow (negative flow) measuring the "weakness", and the outflow (positive flow) measuring the strength, i.e. the extent to which one region is dominating the others, were calculated for each macro region and county. As a result of the two, the net flow was determined ("*Phi*" in Table 1).

Table 1. The results of multicriterial ranking of Croatian macro regions and countries according to the achieved level of development in the years of 1971 and 1991 by the PROMETHEE method

	1971		1991	
County / Macro region	Phi	Rank	Phi	Rank

County:				
City of Zagreb	0.735	1	0.531	1
Istria	0.622	3	0.497	2
Upper Adriatic and Gorski Kotar	0.674	2	0.439	3
Dubrovnik and Neretva	0.300	4	0.292	4
Varazdin	-0.017	12	0.139	5
Osijek and Baranja	0.208	5	0.103	6
Sibenik	-0.215	15	0.100	7
Koprivnica and Krizevci	0.026	11	0.046	8
Karlovac	0.076	8-9	0.039	9
Split and Dalmatia	0.124	6	-0.034	10
Bjelovar and Bilogora	-0.034	13	-0.044	11
Medjimurje	-0.378	18	-0.090	12
Vukovar and Srijem	0.076	8-9	-0.104	13
Sisak and Moslavina	0.100	7	-0.128	14
Virovitica and Podravina	-0.544	19	-0.197	15
Pozega and Slavonia	-0.163	14	-0.206	16
Krapina and Zagora	-0.277	17	-0.209	17
Brod and Posavina	0.058	10	-0.225	18
Lika and Senj	-0.216	16	-0.230	19
Zadar and Knin	-0.574	20	-0.257	20
Zagreb	-0.584	21	-0.463	21
Macro region:				
Lika and Upper Adriatic	0.684	1	0.471	1
Middle Croatia	0.277	2	0.251	2
Slavonia	-0.424	3	-0.375	3
Dalmatia	-0.592	4	-0.409	4

Two rank-lists are not completely comparable since they are made on the basis of the different number of indicators/criteria. Still, it should be noted that the same groups of counties are situated on the top and the bottom of both lists. There are about fifteen counties between these two groups. They have slowly changed their positions over the period of twenty years. These changes were most favourable in the County of Varazdin (7 places up) and County of Medjimurje (6 places up), while the worst effects were in the County of Brod and Posavina (8 places down), County of Sisak and Moslavina (7 places down) and also for the County of Split and Dalmatia (4 places down).

Although there are some restrictions on the ranking results (since the final ranks strongly depend upon the nature and number of used indicators), it can still be claimed with significant level of certainty (because the ranking was done according to all indicators relevant for the measurement of the development level) that the obtained lists (especially

that of 1991) righteously reflect the (un)development conditions and therefore also the (im)balances in the Republic of Croatia. These results also provide enough information and reason for elaboration of an active development policy towards a balanced spatial development.

4. WHERE SHOULD THE PROCESSES BE DIRECTED TO?

Previous analysis has undoubtedly showed that there are numerous areas of imbalances in the Republic of Croatia. It can be seen in the geography of the Croatian national territory which varies significantly over the regions causing various degrees of possible spatial utilization, in the substantial differences in the overall level of development, in the differences between central cities and the surroundings areas that are not always equal with the corresponding counties boundaries, in quite different levels in the development of boundary and other areas where the former are constantly exposed to the external influences exerting adverse impact on their development.

One of the most important reasons for the existence and deepening of the imbalances in these areas is surely the regional policy of the pre-transitional period. It was based on the deductive socialist concept. In short, a single general approach should have been a starting point for the elaboration of the policies for all the subsystems not only in the terms of space but also of structure and of time. However, things were quite different in practice. The attempts of decentralization of regional policy unfortunately ended within the existing administrative levels. It was therefore left either too little or too much space for various actions and measures of regional policy, which is considered to be the policy of political administrative units (which cannot be true even in the case of an optimal regionalization).

The experiences of developed countries reveal that the only effective means for directing these processes towards regional balance is the market. On the other hand, market failures that negative effects should be eliminated and avoided through the process of development management. The latter term does not imply directive management that would eventually eliminate market valorization. On the contrary, it refers to the model that would stimulate competitiveness and clearly define measures of economic, social, cultural and other policies as to encourage various activities in the areas where they have been completely or partially missed.

The critique of the regional development model implemented so far provides the basis for the approach to the processes and flows of the regional balance in the future, i.e. to the elaboration of a new model of regional development:

- Contrary to the conviction that the main content of the regional development policy was only economic development while the other development elements were of minor importance and extracted from the economic development framework, new concept considers entire development process as a subject of regional development; it means that regional development encompasses social, economic, spatial and human structures as well as living in human settlements;
- Previous regional development policy was focused only on the problem of the undeveloped regions while there was a mediator mechanism between developed and undeveloped regions in the process of regional development management. New policy of regional development must be founded on the policy of national development appreciating valorization of regional wealth. It should encourage faster growth of each region as well as of the national territory as a whole;
- Policy of regional development in the past had made much more effort in transferring the economic patterns of developed regions to the undeveloped ones than in activating regional comparative and competitive advantages. New development model, instead of stressing development differences, puts the accent on the functions and their effectiveness in achieving a balanced development, distribution of productive functions as well as faster development of both parts of and of entire national territory;
- Specific feature of a new model is the appreciation of functional and regional principles. In practice, they create new development fluid between national and regional level. Basis of functional and policentric system are cities, while differences in size, economic and functional development between city nodes and their gravitating areas provide the dynamic of entire system.

Consequently, an overall development strategy of Croatia and development strategies of particular regions can be highly correspondent if the starting points of the regional development model were considered as strategic guidelines in the elaboration of the regionally balanced development. The differences occur in the management mechanisms and instruments for the implementation of policy of overall and regional development.

Although regional policy can, in a short run, decelerate the dynamics of overall development, it will surely encourage the increase of average growth rate and the satisfaction of population in a long run. Regional imbalances and the problem of undeveloped areas in Croatia can only be solved according to a unique development policy based on the principles of functional hierarchical policentrism. Moreover, the best results can be achieved only if policentrism is founded on the competition principles, i.e. if the undeveloped areas are approached not on social but market rules, creating therefore a sound base for internal-based development in future (market instead of social allocation of investments).

What can be expected of the new model of regional development regarding imbalances in dimensions of regional structure in the Republic of Croatia?

Basic demographical strategic issue is to eliminate internal migrations from one group of regions to the another. It can be achieved by implementation of a more active policy of economic development, development of infrastructure as well as by better cultural and social equipment in less developed areas. Moreover, the development of rural areas through the development of economic structure as well as the encouragement of socialization in rural areas through the development of cultural institutions and interactions with urban areas are considered to be of utmost importance.

More harmounious economic development is also imposed as one of the basic economic objectives. Regional development management should stimulate reallocation of accumulation from the generating areas to those where it could be efficiently invested. Naturally, crucial prerequisite would be implemented market rules and principles implying, among others, regional opening and also reduction of the influences of political units to the accumulation accompanied, at he same time, with ever growing impact of economic agents in accordance with the market criteria of optimal efficiency and productivity of resources. The adoption and implementation of modern technologies would be of crucial interest since they would be the basis for the creation of new regional development poles. Moreover, a special attention should be paid to the right valorization of overall economic and other infrastructure as a prerequisite for overall development as well as for the development of economic branches and regions in the Republic of Croatia.

As far as spatial dimension of regional development is concerned, it seem quite reasonable to expect the growth of the awareness of spatial limitations and it rational use. The guidelines for the directions of the development of cities and urbanization process in general will be of special interest within the regional development policy. City centres will be given the role of development nodes instead of autonomous and often chaotical regional development. As nodes, they will have to open towards their surrounding areas and have a significant impact on the entire development of the gravitation areas. Physical planning policy will be focused upon the elaboration of regional physical plans as a basis for the development and environmental protection (sustainable development). The development of a specific spatial development management system would be the prerequisite for the realization of these plans. Such a system, and the dynamics of its development, would imply the synthesis of planning, organization, directing and monitoring, especially on a regional level.

Consideration about social and cultural factors within the strategy of regional development would be primarily focused upon the identification of an optimal relationship between cultural activities on a market base on one hand, and system of state redistribution, on the other hand as well as between centralization and decentralization of process of political decision making in the field of cultural development.

Finally, it should be stressed that the problem of the development of underdeveloped regions, and especially areas such are islands, boundary and mountains areas, should not be the only objective of the regional development management. On the other hand, the development of these areas of Croatia should not be left to its own spontaneous path, not to the weak forces of local authorities. They must be developed on a more complex and selective basis within an overall development policy, encouragement the involvement of proper resources and integration in development trends of wider surrounding areas, always keeping in mind that the development balance between them and other, already developed areas, could be achieved only in a long run.

End Note:

1. The following dimensions were taken into account:

- a) for the year of 1971: population (indicators: agricultural population, farmland, woodland, population density, members of a household, population abroad), economy (employment, employment in primary sector, employment in secondary sector, DP per capita, DP per km²), infrastructure (roads, modern roads, vehicles, passengers vehicles), education (number of pupils in high schools, doctors, dentists, pharmacists) and standard (radio, TV, apartments)
- b) for the year of 1991 (besides the above): population (urban), education (children houses, pedagogues, number of inhabitants with completed high school, high education, college, number of scientific researchers), standard (electrical energy, telephones) and a new dimension water (water consumption, water consumption in household, number of connections to water supply system, waste waters, household waste waters, pretreated waste waters).

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