

Osmankovic, Jasmina; Somun, Rabija

Conference Paper

Territorial cohesion and regional development - case of Bosnia and Herzegovina

50th Congress of the European Regional Science Association: "Sustainable Regional Growth and Development in the Creative Knowledge Economy", 19-23 August 2010, Jönköping, Sweden

Provided in Cooperation with:

European Regional Science Association (ERSA)

Suggested Citation: Osmankovic, Jasmina; Somun, Rabija (2010) : Territorial cohesion and regional development - case of Bosnia and Herzegovina, 50th Congress of the European Regional Science Association: "Sustainable Regional Growth and Development in the Creative Knowledge Economy", 19-23 August 2010, Jönköping, Sweden, European Regional Science Association (ERSA), Louvain-la-Neuve

This Version is available at:

<https://hdl.handle.net/10419/118937>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

TERRITORIAL COHESION AND REGIONAL DEVELOPMENT – CASE OF BOSNIA AND HERZEGOVINA

Abstract:

In paper we analyzed territorial cohesion and regional development in Bosnia and Herzegovina from 1995 to 2010. In the context this theme we analyzed convergence and disproportional into Bosnia and Herzegovina during the postwar period. We used relevant statistical methods. We focus on demographic data and standard macroeconomic data (gross domestic product, gross domestic product per capita, employment rate, unemployment rate, population rate) on local, cantonal, entities and national level from relevant statistical offices (Statistical agencies for Bosnia and Herzegovina, Federal Office of Statistics, etc.) We hope that this result would be useful in context discussion about new territorial organization Bosnia and Herzegovina.

Key words: territorial cohesion, convergence, development, Bosnia and Herzegovina

Framework

Recent developments in the theory led to strong revival interest in regional growth disparities, convergence and cohesion. (Armstrong&Taylor, 2000: 64). The spatial framework of the research is therefore Bosnia and Herzegovina, specifically trends and relations in levels of economic development of different local communities and regions. Testing is based on the data collected by statistical offices in the country. Timeframe of the research is 1990 to 2008. To test the hypothesis we use comparative analysis of some basic statistical indicators. Research results can be used to explain the economic sustainability of territorial organization, evaluation of development policies, redefining the territorial matrix, etc.

The problem of disparities and convergence and cohesion is widely analyzed and verified in the economic literature. Analyzing the possibilities of dynamizing growth opportunities of poor regions and local communities and improving unfavourable trends in comparison with the rich regions and local government units reveals the complexity of the problem, but also points to efforts that would be necessary to at least partially resolve them.

Theoretical approaches and explanations of convergence are particularly intensified since mid-twentieth century. Researches were trying to find the explanation for the achieved growth rate of developed countries, but also to discover, and eliminate the factors of deviation between developed and developing countries. This has resulted in the construction of neo-classical growth model (Solow, 1988). Theoretical explanations of convergence and its practical tests are usually performed under neo-classical growth models (Bogunovic, 2001). The concept of convergence is complex and can be defined in different ways. The first approach is based on negative correlation between the rate of

growth of income per capita and the initial level of income. Second approach assumes that there is dispersion in level of real per capita income between observed areas (community, region and state) but that it decreases over time.

The concept of convergence can be tested at the global, national, regional and local level. At the regional level convergence has been tested on the example of the United States for the period 1880-1990, in the case of Japan for the period 1955-1990, Germany, Great Britain, France and Italy for the period since 1950. Convergence is tested for other countries also. In all the cases convergence is confirmed. It was found that the underdeveloped regions have above-average growth rates and that leads to equalization of inter-regional income distribution (Xavier & Sala-I-Martin, 1996). The European Union pays special attention to the analysis of convergence at the level of integration, at national, regional and local level, through implementation of different policies, monitoring and evaluation of the results of these policies (Beckfield, 2003).

Economic development literature often recalls that "rich countries become richer and the poor become poorer." Comparatively speaking, this phrase is based on the practical situation, such as the fact that there are no developed ideas and strategies that would allow development gap between rich and poor countries, regions and local communities to be minimized and/or eliminated.

Testing

In order to test convergence between different regions and local communities in Bosnia and Herzegovina we compare the level of socio-economic development on the level of municipalities in 2008 to that from 1990. We use three indicators available on the level of municipalities. Those are the data on population, gross domestic product and employment rate.

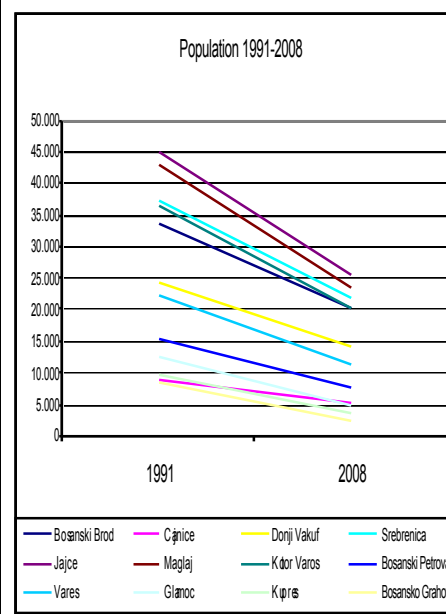
From 1991 to 2008 population in Bosnia and Herzegovina is decreased from around 4,4 to 3,8 millions. Average population on the level on municipalities in 1990 was 40.352, with standard deviation of 33,329 and variation coefficient of 82,6%. Median or average value was 29.331, maximal value (Banja Luka) was 201.654 and minimal value (Neum) 3.487. Maximal to minimal value ratio was 57,8. In 2008 average population number was 24.026. Maximal value (Banja Luka) was 223.457 and minimal value (Dobretici) 652 (Doknic, 1990). This means that average value is 1,7 time lower, and that maximum to minimal value ratio is 5,9 times higher. One of the reasons for this is off course new administrative division of the country on two entities (Federation of Bosnia and Herzegovina and Republic of Serbska) and ten cantons (inside of Federation of Bosnia and Herzegovina) which divided many of the pre-aggression municipalities on two or in some cases three different municipalities. This resulted with increasing number of municipalities from 109 to 143. When we join together these divided municipalities and compare them to pre-aggression period we can see an interesting pattern. While in some municipalities (Pale, Zepce and Laktasi) population is more than 30,0% higher, 12 of 109 municipalities actually lost more than third of their population.

Table 1. Population of municipalities 1991-2008

Municipality	Population		Index (2008/1991)
	1991	2008	
Bosanski Brod	33.962	20.341	0,6
Cajnice	8.919	5.283	0,59
Donji Vakuf	24.232	14.195	0,59
Srebrenica	37.211	21.768	0,58
Jajce	44.903	25.761	0,57
Maglaj	43.294	23.587	0,54
Kotor Varos	36.670	19.930	0,54
Bosanski Petrovac	15.552	7.907	0,51
Vares	22.114	11.185	0,51
Glamoc	12.421	4.876	0,39
Kupres	9.663	3.506	0,36
Bosansko Grahovo	8.303	2.111	0,25

Source: Authors' calculation based on the Statistical offices data for 1991 and 2008.

Graph 1. Population of municipalities 1991-2008



Situation with the employment rate in 1990 was following. Average number of workers on population of one hundred was 22,88. Standard deviation was 9,70, coefficient of variation 42,4% and median was 21,4. Maximum value (municipality Centar) was 66,1 and 5,7 was minimum value (Kalesija). Maximum to minimum value ration was 11,6 (Doknic, 1990). In 2008 average value of this indicator was 16,5. Maximum value was 53,3 (municipality Center), minimum value 3,3 (Stolac municipality). Maximum to minimum value ratio was 16,2 or 1,4 times higher. In 16 municipalities employment rate in 2008 is more that 50% lower comparing to that in 1990.

Table 2. Employees and employment rate 1990-2008

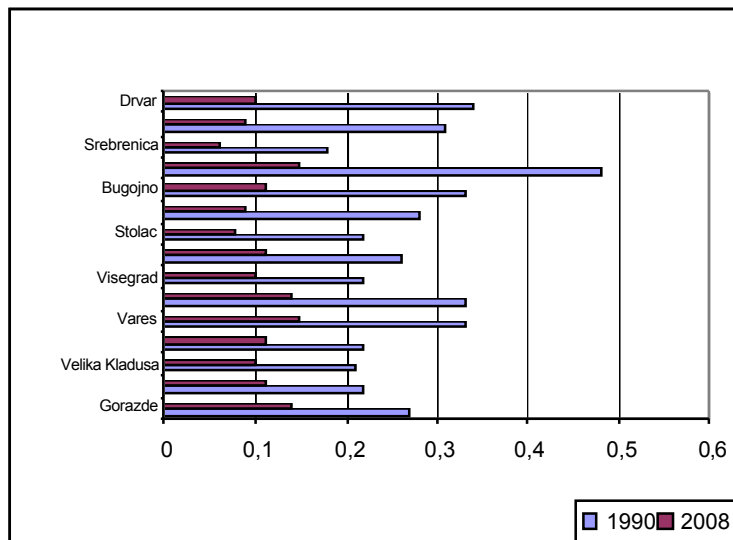
Municipality	Number of employees		Employment rate		2008/ 1990 ratio
	1990	2008	1990	2008	
Gorazde	10228	4261	0,27	0,14	0,51
Jajce	9789	2844	0,22	0,11	0,51
Velika Kladusa	10866	4532	0,21	0,1	0,48
Ilijas	5644	1859	0,22	0,11	0,47
Vares	7366	1679	0,33	0,15	0,45
Bosansko Grahovo	2745	304	0,33	0,14	0,44
Visegrad	4714	1869	0,22	0,1	0,44

Glamoc	3286	539	0,26	0,11	0,42
Stolac	4163	1214	0,22	0,08	0,34
Kalinovik	1293	450	0,28	0,09	0,33
Bugojno	15454	4118	0,33	0,11	0,33
Vogosca	11964	3128	0,48	0,15	0,31
Srebrenica	6712	1221	0,18	0,06	0,31
Novi Travnik	9482	2340	0,31	0,09	0,3
Drvar	5844	1121	0,34	0,1	0,28

Source: Authors' calculation based on the Statistical offices data for 1990 and 2008.

Average gross domestic product per capita on the level of municipality in 1990 was 4,03 million of diners with standard deviation of 2,26 and 56,0% coefficient of variation.

Graph 2. Employment rate



Median value was 3,74 and maximum to minimum value ratio of 18 (Vogosca vs. Cazin) (Doknic, 1990). In 2008 this ratio was 26,1 so the difference in development level has increased 1,45 times. Municipalities with the highest drop in GDP per capita ranking are presented in next table.

Table 3: GDP per capita of municipalities

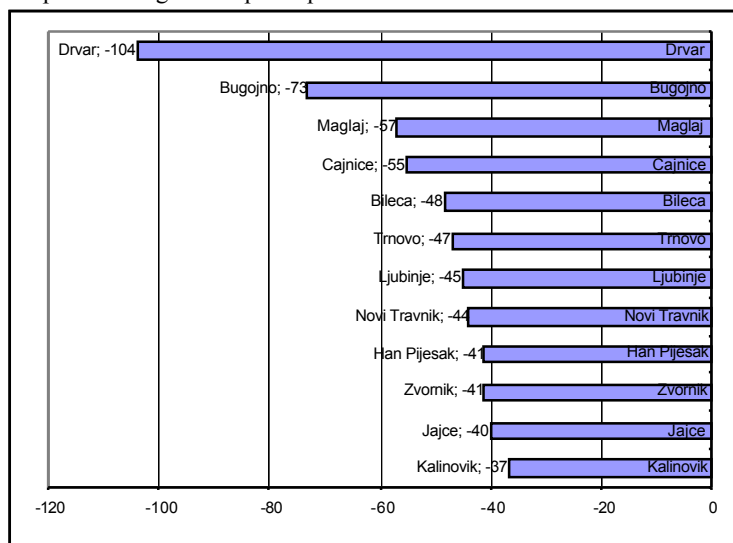
Municipality	GDP per capita rank		Change
	1990	2008	
Kalinovik	50	87	-37
Jajce	31	71	-40
Zvornik	12	53	-41
Han Pijesak	17	58	-41
Novi Travnik	21	65	-44
Ljubinje	29	74	-45
Trnovo	52	99	-47
Bileca	15	63	-48

Cajnice	38	93	-55
Maglaj	35	92	-57
Bugojno	13	86	-73
Drvar	3	107	-104

Source: Authors' calculation based on the Statistical offices data for 1990 and 2008.

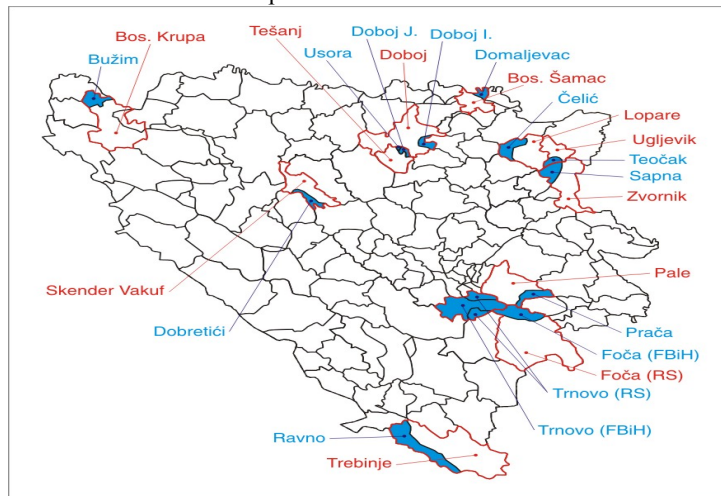
One possible reason for the observed divergence in level of economic development between municipalities in Bosnia and Herzegovina is the new administrative division of the country into two entities and ten cantons created as a result of the Dayton Peace Agreement.

Graph 3. Change GDP per capita 1990-2008



This new administrative division is dominantly based on ethnic principles and resulted in two almost completely separate economic spaces. Pre-aggression division of the country on four economic regions and local communities was completely ignored (Osmankovic and Pejanovic, 2006). Number of municipalities has increased from 109 to 143 and the Brcko district (Appendix 1). Many municipalities are divided according to ethnic criteria, and are mainly concentrated on the border between the two entities. For decades formed territorial structure is divided. Link between the municipal center and its environment is broken. Some of the newly created municipalities were left without key infrastructure, without the traffic and other connections necessary for development. Other areas were left without jobs and population. According to Aganovic (1997, p. 80), due to disruption of previously established connections around 40% of development potential is lost.

Picture 1: Divided municipalities in Federation BiH



Confirmation of the above thesis is presented in next table, where the divided municipalities on the territory of Federation of Bosnia and Herzegovina are extracted and analyzed individually and as a separate group according to different indicators of economic development. As we can see, the level of development of this group of municipalities in 2008, measured by gross domestic product per capita, was significantly lower than the average of the Federation BiH. A similar picture we get if we take as an indicator the rate of unemployment.

Table 4: Divided municipalities in comparison with FBiH average

Municipality	GDP in (thousands of BAM)	GDP pc (in BAM)	GDP pc FBiH = 100	Unemployment rate	Employment rate
Buzim	27.443	1.544	26,2	65,8	7,8
Domaljevac	10.432	2.333	39,5	58,8	9,9
Celić	21.701	1.539	26,1	70,5	7,4
Doboj Istok	26.042	2.561	43,4	65,6	14,1
Doboj Jug	17.741	3.996	67,7	55,3	18,6
Sapna	13.021	1.004	17	79,9	5,5
Teocak	10.851	1.464	24,8	81,5	5,7
Dobretići	657	1.007	17,8	90,4	3,4
Ravno	4.533	3.368	57,1	38,9	3,3
Prača	2637	2.424	41,1	61,2	8,3
Trnovo FBiH	4.972	2.279	38,6	64	10,4
Foca FBiH	4.286	2.341	39,7	63,4	12
Total	143.659	1.831	31	69,2	12,3
Federation BiH	13.735.239	5.899	100	47	24,2

Source: Authors' calculation based on the Statistical offices data for 2008.

This indicator is particularly unfavourable in divided municipalities (69.2% as a group) in comparison to Federation BiH average (47%).

Conclusion

This kind of testing is particularly important for poor countries, regions and local communities to find the paths of transition and restructuring for more dynamic economic development. This is especially important for creating economic policy in a particular economic space. Prospects of a community depend on improving the welfare of all its parts. Speed of movement towards the steady state is determined by the profile of economic policy, which then determines the speed of adjustment, and selection of mechanisms, measures and instruments of economic policy.

Comparative analysis of the gap in the level of development of BiH municipalities 1990 and 2008, confirms the hypothesis of divergence and cohesion. Namely, the gap in development level analyzed through level of employment and GDP per capita has increased significantly. Analysis shows that the divided municipalities affect the depth of the divide between municipalities. Therefore, analysis confirms hypotheses about cohesion and convergence in Bosnia and Herzegovina. Convergence is a process of positive change. Speed of convergence depends on the level of the gap and the relative pace of change, which is influenced by the structure of the economy. It is desirable that all the relevant economic variables converge towards a desired equilibrium state. In that case, integration linkages create positive economic motivation towards favourable results.

Bibliography

- Aganović, M. et. al. (1997): Strategija prostornog uređenja Federacije Bosne i Hercegovine, Federalno ministarstvo prostornog uređenja i okoliša, Sarajvo
- Armstrong, H. & Taylor, J. (2000): Regional Economics and Policy. Blackwell Publishing, Malden, USA, Oxford, UK, Carlton, Australia
- Barro, R. J. (1991): “Economic Growth in a Cross Section of Countries”, Quarterly Journal of Economics, Vol. 106(2), p. 407-423.
- Beckfield, J. (2003): “Income convergence and regional integration in the European Union”, Indiana University Working Papers Series
- Bogunovic, A. (2001): *Ekonomске integracije i regionalna politika*, Ekonomski fakultet Sveučilišta u Zagrebu, Zagreb
- Doknic, T (1990): Varijabilnost opština SR BiH prema demografskim karakteristikama i nekim pokazateljima društveno-ekonomskog razvitka, SR BiH, Republički zavod za statistiku, Sarajevo
- Ortigueira, S. & Santos, S.M. (1997): “On the Speed of Convergence in Endogenous Growth Models”, The American Economic Review, Vol. 87(3), p. 383-397.
- Osmankovic, J. & Pejanovic, M. (2006): Euroregije i Bosna i Hercegovina, Centar za lokalnu i regionalnu samoupravu FPN Sarajevo, Sarajevo
- Solow, R. M. (1988): *Growth Theory*,. Oxford University Press, Oxford

- Xavier X. Sala-I-Martin (1996): “Regional cohesion: Evidence and theories of regional growth and convergence” *European Economic Review*, No. 40.