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REGIONAL DISPARITIES IN SERBIA*

Regionalne razlike u Srbiji

Abstract

The paper presents a legislative and institutional framework of regional development in Serbia, as well as the analysis of regional disparities across different geography, elaborated through six selected indicators: population and population density (analysed as a single indicator), Regional GDP, Employment, Unemployment, Business Demography and Budgetary Revenues per capita. Indicators are analysed at the all three NUTS, as defined by the Law on Regional Development, and at the local level (cities and municipalities). In the analysis, the paper applies the unweighted Gini index of regional disparity that was used in calculating disparities within each observed indicator. The results are presented within the tables and figures that show changes of the Gini index across years of observation. The paper showed that highest regional disparities in Serbia are at the local and NUTS 3 level. Disparities at those two levels are stable across the years. Disparities at NUTS 1 and NUTS 2 levels are also high, yet lower than at the bellow territorial levels (NUTS 3 and the local level). However, disparity at these two levels grows much faster than at the NUTS 3 and local level.

Key words: *regional disparity, regional development, Gini index, Serbia*

Sažetak

U radu je prikazan zakonodavni i institucionalni okvir regionalnog razvoja u Srbiji, kao i analiza regionalnih razlika na različitim teritorijalnim nivoima, prikazana kroz šest odabranih indikatora: stanovništvo i gustina naseljenosti (koji su analizirani kao jedan indikator), regionalni BDP, zaposlenost, nezaposlenost, poslovna demografija i budžetski prihodi. Indikatori su analizirani na sva tri NTSJ nivoa, definisanih Zakonom o regionalnom razvoju, i na lokalnom nivou (opštine i gradovi). U analizi se primenjuje neponderisani Gini indeks regionalnih razlika koji je korišćen za određivanje razlika u okviru svakog posmatranog indikatora. Rezultati analize su predstavljani u okviru tabela i grafika koji prikazuju promene Gini indeksa tokom godina posmatranja. U radu je pokazano da su najveće regionalne razlike u Srbiji prisutne na lokalnom i na NTSJ 3 nivou. Regionalne razlike na ova dva nivoa su stabilne tokom godina. Sa druge strane, razlike na nivoima NTSJ 1 i NTSJ 2 su takođe velike ali manje nego na nižim teritorijalnim nivoima. Međutim, razlike u ova dva nivoa rastu mnogo brže nego na nižim nivoima.

Ključne reči: *regionalne razlike, regionalni razvoj, Gini indeks, Srbija*

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Introduction

The contemporary world is characterized by difference rather than uniformity and inequality. On a global scale is stark and largely undisputed despite unparalleled wealth, advances in human ingenuity, and a vast array of policies to promote development and redress regional inequalities. Disparities may be long lasting, destabilizing parts of a country, entire nations, and even some world regions.

Regional inequality is a salient feature of most countries, either developed or developing ones and trend of disparity is either stable or increasing (Rodrigues-Pose and Gill, 2003; Kanbur and Venables, 2005; World Bank, 2009). Some of the widest regional gaps exist in affluent countries. For instance, GDP per capita in London is much larger than in the United States, while in Wales it is lower than in Greece. People in Mississippi have a GDP per capita closer to that of Slovenia than to that of many US states, while people in the District of Columbia or Delaware have a higher GDP per capita than most OECD countries (OECD, 2011). Employment differences can be equally large. In Italy, the difference in the employment rate of the region Emilia-Romagna and Campania is more than 30 percentage points, the same as between the United States and Turkey. In developing countries, intra-national development disparities are even more alarming since not all parts of a country are suited for accessing world markets (Kanbur and Venables 2005). Fast growing countries, such as China, India, Russia, Turkey or Brazil experience high degree of regional equality (Milanovic, 2005, OECD 2011). Coastal and economically dense places usually do better than other parts of a country (World Bank 2009). Therefore, in a globalised context developing countries should be more concerned about regional disparities in production and income than in comparable stage of development with developed countries.

Uneven development in literature is variously viewed as an intrinsic characteristic of capitalist economic development and/or a necessary stage through which countries pass on their way to a high-income society (Perrons, 2010). Theoretical explanations are based on the growth theory and the new economic geography. According to the growth theory, in the early stages of

economic development, regional inequality would tend to rise as growth occurs in discrete locales, but inequalities will later decline as equilibrating forces such as better infrastructure, technological diffusion, decreasing returns to capital in richer and high-wage areas, diseconomies of agglomeration etc. become stronger (Williamson, 1965). A different view has been proposed more recently within the context of the new economic geography school (Krugman and Venables, 1995) and endogenous growth theory (Romer 1986) who argued that increasing returns to scale and thus advantages of agglomeration of capital and knowledge will tend to perpetuate, or even increase, spatial inequalities¹.

The purpose of this article is to explore the regional disparities in Serbia through selected six indicators: population and population density (used interchangeably as one indicator), GDP, employment, unemployment, business demography and budgetary revenues per capita. Indicators were selected as the main ones for presenting the economic strength of sub-national development at different level and inter-regional disparity of Serbia. Indicators were analysed as a part of the socio-economic analysis of regional development in Serbia, done by two authors within the scope of the EU-funded project "Assistance to regional Policy Development at National Level" (abbreviated as RegPol-project).

Regional disparities in Serbia are presented through the unweighted Gini index of regional disparities, taking into account all three NUTS levels and the local level (the latest presenting the level of cities and municipalities).

Framework for regional development in Serbia

Some of the key challenges of Serbia are related to the growing disparities in the socio-economic development of different parts of the country. Strong disparities in economic development of Serbia's territories are caused by long-standing deficiencies in the key factors of

¹ Yet in Krugman and Venables (1995), decreasing transportation costs may play an offsetting role: assume that transportation costs are zero, then the advantage of cheap labour in less developed countries (or regions) will, to some extent, tend to offset the advantages of increasing returns to scale.

competitiveness – poor infrastructure, maladjustment of workers to the market conditions, insufficient support for business, and inadequate innovative capacity of enterprises, a significantly degraded environment and resultant low investment attractiveness of territories. Disparities in Serbia have significantly increased during the socio-economic transformation to the market economy, when territories with low level of competitive and comparative advantage did not manage to catch up with leading growth poles of the country.

Recognising the problem of high regional disparities, the Constitution of the Republic of Serbia emphasizes the need for regional development and the country's obligation to promote balanced and sustainable regional development (Article 94). In addition, the Constitution stipulates that the Republic of Serbia establishes and formulates "the development of the Republic of Serbia, policy and measures for stimulating balanced development of certain areas of the Republic of Serbia, including the development of underdeveloped areas" (Article 97, paragraph 12).

In January 2007, the Government of the Republic of Serbia has adopted the Regional Development Strategy of the Republic of Serbia 2007 - 2012, which is the main national strategic document for regional development. The strategy determined seven goals of regional development: (i) sustainable development; (ii) enhancing regional competitiveness; (iii) alleviation regional disproportions and poverty; (iv) stopping negative population trends; (v) continuation of the decentralisation process; (vi) economic integration of Serbian communities in AP Kosovo and Metohija; and (vii) building institutional regional infrastructure. However, very little has been done so far in regard to the implementation of the strategy.

Following a two-year public discussion, the Parliament of the Republic of Serbia finally adopted the Law on Regional

Development in 2009. However, a year after, in 2010, the Law was amended with the significant changes and policy instruments. The Law outlined the legal, economic and institutional mechanisms for the implementation of state regional policy aimed at encouraging the development of regions and the removal of the conditions for stagnation in territories.

The Law introduced territorial units according to the NUTS classification². At the NUTS 1 level, Serbia is split between Serbia-North (comprised of Belgrade and Vojvodina) and Serbia-South (other three regions). At the NUTS 2 level, the Law introduced five regions: Vojvodina, Belgrade, Šumadija and Western Serbia, Southern and Eastern Serbia, and Kosovo and Metohija. Two autonomous provinces (Vojvodina and Kosovo and Metohija) and the City of Belgrade administratively and geographically coincide with the NUTS 2 regions, while remaining two regions are only planning (statistical) regions with no joint administrative functions. This asymmetry in political and administrative power between regions presents one of the key characteristics of the regionalisation in Serbia. NUTS 3 level coincides with the existing 30 administrative districts in Serbia.

2 The NUTS (NUTS stands for *Nomenclature des Unités Territoriales Statistiques*) classification subdivides the economic territory of the EU member states, as well as candidate and potential candidate countries, with the purpose of making regional statistics comparable with each other. The classification is hierarchical and has three levels: NUTS1, NUTS 2 and NUTS 3. The division is based on the population numbers, following the threshold: NUTS 1: from 3 million to 7 million people; NUTS 2: from 800,000 to 3 million people; and NUTS 3: from 150,000 to 800,000 people. NUTS classifications follows the existing administrative units, yet in cases where there is no administrative units of a sufficient size, the level is established by aggregating a significant number of smaller contiguous administrative units. These aggregated units are also known as 'non-administrative units' or 'statistical units'. Below NUTS 3 level there are two Local Administrative Units (LAU 1 and LAU 2), which sometimes are incorrectly designated as NUTS 4 and NUTS 5.

Table 1: NUTS Classification of the Republic of Serbia

NUTS 1	NUTS 2	NUTS 3	LAU
Serbia-North	Region of Vojvodina	7 administrative districts	6 cities and 39 municipalities
	Region of Belgrade	District of Belgrade	City of Belgrade with its 17 city-municipalities
Serbia-South	Region of Šumadija and Western Serbia	8 administrative districts	10 cities and 42 municipalities
	Region of Southern and Eastern Serbia	9 administrative districts	6 cities and 41 municipalities
	Region of Kosovo and Metohija	5 administrative districts	1 city and 28 municipalities

Source: The Law on Regional Development of the Republic of Serbia (2010) and the Law on Territorial Organisation of the Republic of Serbia (2007)

The Law defines the following stakeholders as the key actors in regional development (Article 19): the Government; Ministry of Economy and Regional Development and line ministries for finance and spatial planning; Autonomous Province of Vojvodina; City of Belgrade; Serbian Business Registers Agency; Republic Agency for Spatial Planning; Fond for Development; Local self-government units; National Council for Regional Development; National Agency for Regional Development; Regional Development Councils; and Regional Development Agencies.

National Agency for Regional Development (NARD) is established in 2009 by the Government of the Republic of Serbia as a public agency for regulatory affairs and for developing expertise and public policies in the field of regional development. NARD is one of the key institutions for implementation of the Law on regional development and regional policies in Serbia. Among other issues, NARD is in charge of accreditation of Regional Development Agencies (RDAs) and coordination of their work.

At the moment, there are eleven RDAs in Serbia. RDAs are established as public private-partnerships between local self-government units and other public or private agents such as universities, banks, private companies or NGOs, under the vague legal form of a non-for-profit limited liability company. By the end of 2001 only four RDAs³ passed the demanding process of accreditation at NARD, while other agencies are striving in collecting the necessary statements from their founders.

Table 2: Distribution of the RDAs in Serbia (2011)

NUTS 2	Number of RDA	Area covered (in %)
Region of Vojvodina	3	100%
Region of Belgrade	none	none
Region of Šumadija and Western Serbia	4	68.3%
Region of Southern and Eastern Serbia	4	100%
Region of Kosovo and Metohija	none	none

Source: Website of National Agency for Regional Development (www.narr.gov.rs) and websites of regional development agencies

As it can be seen in the table 2, RDAs in Vojvodina and Southern and Easter Serbia cover the whole territory of those two regions. This is not entirely true since RDA

Bačka still have not formalise their partnership agreement with three municipalities of Northern Bačka, as well as with Apatin, Temerin and the City of Novi Sad. Šumadija and Western Serbia has four RDAs, covering 68.3% of the territory of the region. Two remaining regions, Belgrade and Kosovo and Metohija do not have regional development agencies established.

In October 2010, an EU IPA-funded project “Assistance to regional Policy Development at National Level” (abbreviated as RegPol-project)⁴ was initiated with the objective to contribute towards a balanced territorial socio-economic development in Serbia, through increasing capacities at national level to plan and implement integrated regional development and through achieving a more effective and transparent planning and spending of Serbian funds for development. One of the main components of the project is the support in designing development documents that are required by the Law on Regional Development, such as the National Plan for Regional Development, NUTS 2 development strategies and corresponding Programmes for Financing the Development of Regions.

GINI Index of regional disparities

OECD's *Regions at Glance 2011* measures regional disparities by an unweighted Gini index, which is defined as (OECD 2011):

$$GINI = \frac{2}{N-1} \sum_{i=1}^{N-1} |F_i - Q_i|$$

where N is number of regions,

$$F_i = \frac{i}{N}, \quad Q_i = \frac{\sum_{j=1}^i y_j}{\sum_{i=1}^n y_i},$$

and y_i is the value of variable y (e.g. GDP per capita, employment and unemployment rate, population density, etc.) in region j when ranked from low (y_1) to high (y_n) among all regions within a country. Gini index ranges between 0 that present a perfect equality: y is the same in all regions, and 1 when y is nil in all regions except one.

³ Four accredited agencies are: RARIS - Zaječar, Centre for Development - Leskovac, RDA Banat - Zrenjanin and Regional Agency for Spatial and Economic Development - Kraljevo.

⁴ More about RegPol is available at the official website of the project: <http://www.regpol.rs/en.html>, accessed on 7 December 2011

The Gini index is unweighted since it assigns equal weight to each territorial unit of observation regardless of its size. In terms of the geographical coverage, at the NUTS 3 level territorial units in Serbia are fairly uniform in their size, which was confirmed by the Gini index of 0.17). Disparity in size of other three levels, measured by the Gini index, is higher and counted 0.36 for NUTS 1, 0.32 for NUTS 2 and 0.34 for the local level.

Regional disparities in Serbia⁵

Regional disparities in Serbia are presented through the analysis of six selected indicators: population and population growth (as one indicator), Gross Domestic Product (GDP), employment, unemployment, business demography and the budgetary revenues. Disparities are analysed at all three NUTS level, as defined by the Law on Regional Development, and the local level (cities and municipalities). Since the region of Belgrade is considered at the NUTS 2 level, it is excluded from analysis at the NUTS 3 level in order not to distort the results. Nevertheless, Belgrade's city municipalities were included in calculating disparities at the local level, including calculations of the Gini index at the local level. Following the same logic, at the local level the city of Niš was participating not as a single self-government unit yet through its city municipalities.

The table 3 presents the overview of the disparities in Serbia on the selected six indicators at the NUTS 1 and NUTS 2 level. In further text disparity on each indicator is analysed separately.

Population density

The population share is almost equal between the Serbia-North and the Serbia-South, though the population density in the Serbia-North is more than twice higher (with 146 people per km²) than in the Serbia-South (only 71 people per km²) in 2009. The number of population is fairly well distributed among NUTS 2 regions as well. In 2009, the most populated is Šumadija and Western Serbia with 2,052,490 inhabitants (28% of the total population in Serbia), followed by Vojvodina (1,968,356 inhabitants, or 26.9%), Southern and Eastern Serbia (1,669,379 inhabitants, or 22.8%) and Belgrade (1,630,582 inhabitants, or 22.3%). The highest population density is in the Region of Belgrade with 509 inhabitants per square kilometre, while the region of Southern and Eastern Serbia has the lowest density with only 64 inhabitants per square kilometre. The population density in Vojvodina is 92 inhabitants per square kilometre, while the figure for Šumadija and Western Serbia was 78. The highest concentration of population is in central urban municipalities of Belgrade, Niš and Novi Sad, while the lowest is in rural municipalities in southern Serbia (Crna Trava, Trgovište and Bosilegrad). Besides Belgrade, in 2009 only five districts in Serbia had population density more than 100 inhabitants per square kilometre (South Bačka: 151, North Bačka: 107, Šumadija: 122, Podunavlje: 166 and Nišava: 137).

⁵ Region of Kosovo and Metohija is excluded from the analysis on regional disparities due to the lack of reliable data.

Table 3: Disparities in Serbia on selected indicators (in %, 2009)

NUTS 2	Population	GDP	Employment	Unemployment	No. of Enterprises	Budgetary Revenues per capita (RS=100%)
North	49.3%	65.5%	58.8%	39.6%	56.7%	134.3%
Belgrade	22.3%	39.9%	32.5%	12.7%	29.5%	187.4%
Vojvodina	26.9%	25.6%	26.4%	27.0%	27.2%	90.4%
South	50.7%	34.5%	41.2%	60.4%	43.3%	66.8%
Šumadija & Western Serbia	28.0%	20.0%	23.3%	33.5%	27.0%	68.0%
Southern & Eastern Serbia	22.8%	14.4%	17.8%	26.9%	16.3%	65.3%

Source: SORS "Municipalities of Serbia 2009", and MERR "Report on Small and Medium-sized Enterprises and Entrepreneurship 2009"

Figure 1: Regional disparity of population density measured by the Gini index

Source: calculated using the data from the SORS, 2002 Census data and annual publications "Municipalities of Serbia" for years 2003-2010

Within the time period 2002-2010, the Gini index of the population density is relatively stable across all four observed territorial levels (see the figure 1). The extreme values of disparities are at the local level, where the Gini index is close to 0.9⁶. Reason behind is in the extremely high disparity in population density between urban municipalities of cities (i.e. in period 2002-2010, the Niš city municipality Medijana had more than 29 thousands inhabitants per squared kilometre) and rural municipalities in remote areas (in 2010, the municipality of Crna Trava had less than 5 inhabitants per squared kilometre).

The Gini index is also significantly high at the NUTS 2, with figures around 0.6, mostly due to the significant difference in population density between Belgrade and other three regions. The Gini index at NUTS 1, and especially at NUTS 3 level are relatively modest, especially comparing to other two observed levels.

Regional Gross Domestic Product (GDP)

In 2009, Gross Domestic Product (GDP) of the Serbia-North was 1,844,866 mil RSD, or almost twice higher than in the Serbia-South (970,134 mil RSD). At the NUTS 2 level, there is a clear dominance of Belgrade over other three regions. Namely, the share of the Belgrade region to the national GDP is close to 40%, which is almost 2.8 times higher than the share of the region of Southern and Eastern

Serbia (14.4%). Vojvodina has a share of a quarter, while Šumadija and Western Serbia has one-fifth of the nation GDP. In addition, GDP per capita in Belgrade is almost 80% higher than a national average. Other three regions have GDP per capita below the national average, two of them are even below 75% (see the figure 1).

Figure 2: Regional GDP in 2009

Source: SORS "Regional GDP of the Republic of Serbia - Preliminary Results"

In 2009, the Gini index of regional GDP at NUTS 2 level was 0.27, while the Gini index for regional GDP per capita was 0.30.

Employment

Regional disparity in employment is also significant. In 2009, the Serbia-North had more than 330 thousand employees than the Serbia-South. Besides, in terms of the employment density, the same year the Serbia-North had 309 employees per 1,000 inhabitants, while the figure for the Serbia-South was 209.

Employment indicators also show the dominance of Belgrade region over other regions in Serbia. In 2009, number of employees in Belgrade was 613,802, which was almost a third of the total number of employees in Serbia. On the other hand, share of the region of Southern and Eastern Serbia in total employment of Serbia was only 17.8% (or 337,109 employees). The same year Vojvodina had 26.4% of a total employment in Serbia (or 497,907 employees), while the share for Šumadija and Western Serbia was 23.3% (or 440,261). At the NUTS 3 level, the highest number of employment is in the South Bačka administrative district, which presents an urban agglomeration of Novi Sad

⁶ The concave curve in line for the local level is created due to the lack of data for the city municipality of Surčin (Belgrade) for 2003 and 2004.

(202,114 employees), while the lowest employment is in Toplica administrative district, only 15,375. Employment density per 1,000 inhabitants follows the figures on total employment. The highest density is in Belgrade region, 376 employees per 1,000 inhabitants, which is 146% higher than the national average, while the lowest density is in the region of Southern and Eastern Serbia with 202 employees per 1,000 inhabitants (or 78.3% of the national average). At the local level, the highest density of employment is in urban centres of Belgrade: Savski Venac (1,993 employees per 1,000 inhabitants) and Stari Grad (1,438 employees per 1,000 inhabitants), while the lowest one is in Opovo (51 employees per 1,000 inhabitants), Lebane (82 employees per 1,000 inhabitants) and Malo Crniće (83 employees per 1,000 inhabitants).

The Gini Index for employment was calculated based on the data available at the official website of the Statistical Office of the Republic of Serbia (SORS), based on the annual average of the formal employment for period 2005 - 2010.

Figure 3: Regional disparity of employment measured by the Gini index

Source: calculated using data from the SORS website www.stat.gov.rs

The highest disparity of employment is at the local level where the Gini Index has a value above 0.6. As emphasized in the previous chapter, discrepancy in employment is high in city municipalities of urban centres of Belgrade and rural under developed municipalities of all other three regions

The Gini index of the employment at NUTS 3 level is higher than at other two NUTS levels, mostly due to the high disparity in employment between South Bačka

district on one side (that has a share of more than 10% of the employment in Serbia), and Toplica district (with less than 1% of the national employment). The Gini Index at NUTS 1 and NUTS 2 is below 0.2.

The Gini index of regional disparity in employment shows disturbance of the labour market in the years after 2008, caused by the global financial crisis. This phenomenon was reflected by growing Gini index, especially at NUTS 1 and NUTS 2 yet also at the local level. This explains that difference in employment between Belgrade and Vojvodina on the one hand and two other regions on the other hand⁷. Growing at the NUTS 3 level is less significant than at other levels.

Unemployment

Unemployment indicator refers to a number of officially registered job seekers, presented within the SORS annual publications "Municipalities of Serbia". Data were analysed for period 2006 - 2010.

At the NUTS 1 level, unemployment is significantly higher in the Serbia-South than in the Serbia-North: in 2009, 439,869 people from the Serbia-South were registered as unemployed (or 60.4% of all unemployed in Serbia), while the figure for the Serbia-North equalled to 288,570 (39.6%).

At the NUTS 2 level, data for 2009 showed highest unemployment in the region of Šumadija and Western Serbia, which accounted for a third of the national figure. Unemployment in Vojvodina and Southern and Eastern Serbia were almost even and accounted for 27% of the total number of unemployed in Serbia. Unemployment share of Belgrade was 12.7%. Diversity in unemployment figures is especially visible at the NUTS 3 and local level. At the NUTS 3 level, extreme unemployment values are in Toplica, Jablanica and Raška administrative districts, while the lowest is in Braničevo and Kulubara. At the municipal level, the unemployment is highest in Crna Trava, Bojnik and Lebane.

⁷ In period 2005-2010 Serbia lost 273,067 jobs. However, the loss of jobs is not uniform across regions. While Belgrade lost 16,933 jobs (or 2.8% of the 2005 value), other three regions lost significantly more jobs: Vojvodina lost 72,297 (or 13.3% of the 2005 value), Šumadija and Western Serbia lost 93,642 jobs (or 18.4% of the 2005 value) and Southern and Eastern Serbia lost 90,195 jobs (or 22.4% of the 2005 value).

Figure 4: Regional disparity of unemployment measured by the Gini index

Source: SORS, Municipalities of Serbia 2006-2010

The Gini index showed the highest disparity on unemployment at the local level. At the NUTS 3 level, the disparity is relatively stable, with the value close to 0.3. The Gini index at the NUTS 1 and NUTS 2 shows an increasing trend in 2006-2008 and a stable and slightly decreasing trend for 2009-2010. The first can be explained by difference in speed of reducing unemployment between Belgrade and Vojvodina on the one hand, and two other regions, while the second explains the increasing trend of unemployment caused by the global economic crisis.

Business demographics

Business demography is presented with the number of enterprises at all levels. The statistics is publicly available for only two years, 2008 and 2009, from the reports on small and medium-sized enterprises and entrepreneurship, published annually by the Ministry of Economy and Regional Development (MERR), Republic Development Bureau and National Agency for Regional Development (NARD).

In 2009 the number of enterprises in the Serbia-North was 178,779 while the figure in the Serbia-South was 136,577 entities. Concentration of medium-sized and large companies is also much higher in the Serbia-North than in the Serbia-South: 1,518 medium-sized companies in the Serbia-North comparing to 952 in the Serbia-South, and 339 large companies in the Serbia-North comparing to the 190 in the Serbia-South.

At the NUTS 2 level, Belgrade region dominates over other three regions. In 2009, 29.5% of all business

entities in Serbia (or 93,042 enterprises) were registered in Belgrade, followed by Vojvodina with 27.2% (or 85,727 enterprises) and Šumadija and Western Serbia with 27% (or 85,055 enterprises). The least number of enterprises were registered in Southern and Eastern Serbia, only 51,522 or 16.3% of the total number of enterprises in Serbia.

Entrepreneurs and micro enterprises dominate in the number of all business entities (with 71.7% and 24.4% of the total number), while numbers of small, medium-sized and large companies are significantly smaller⁸. However, large and medium-sized companies mainly concentrate in Belgrade, and to some extent in Vojvodina. For instance, in 2009 only 74 large companies (or 14%) are located in the region of the Southern and Eastern Serbia, while 206 of them are in Belgrade region (38.9%). In 2010, the number of large companies in Southern and Eastern Serbia decreased by 11, while in Belgrade this decrease was 7 companies.

Large companies tend to concentrate in urban centres and along the main corridors, leaving hinterland districts and municipalities to deal only with small-scale employment business entities. For instance, in 2009, Toplica district had only one large company (none in 2008), districts of Pirot and Zaječar had four and Jablanica had five. At the same time Belgrade had 206 and South Bačka 54 large companies.

Demography statistics of medium-sized enterprises shows the dominance of Belgrade and Vojvodina, while other two regions are lagging behind in numbers. In 2009, there were 814 medium-sized companies in Belgrade Region (or 33%) and 704 companies in Vojvodina Region, while in the numbers in other two regions were 574 for Šumadija and Western Serbia (23.2%) and 378 in Southern and Eastern Serbia (16.3%). Most of the medium-sized companies are concentrating in Belgrade (814), South Bačka district (244) and Srem district (110), while in all

⁸ There is no clear definition of SMEs in Serbia. Official definition of SME, but only for legal entities, is given in the Law on Accounting and Auditing. It does not apply to the entrepreneurs. In some cases, slightly different definition of SME is used, e.g. in the Law on state aid and subsequent regulations, where the classification thresholds are taken from the EU. EU definition on Small and Medium-sized enterprises is available at: http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index_en.htm, accessed on 9 December 2011;

other districts the figures significantly smaller, reaching minimum in Toplica district with only 21 companies.

The Gini index on all business entities is relatively small for NUTS 1 and NUTS 2, while it is a bit higher for NUTS 3 level (reaching 0.31 in 2009). In 2008 there is almost no discrepancy in number of entrepreneurs at the NUTS 1 level. However, the Gini index is higher on micro, small, medium and large companies on all three NUTS levels. The highest discrepancy is on large companies where the Gini index goes to 0.42 (NUTS 3 level for 2008).

Budgetary revenues per capita

Budgetary revenues per capita is more than twice higher in the Serbia-North than in the Serbia-South, which probably the best reflect the degree of disparities at this level.

In 2009, budgetary revenue per capita in the region of Belgrade was 42,564 RSD, which was 187.4% higher than in the national average (22,712 RSD). All other three regions were having budgetary revenues per capita less than a national average, Vojvodina with 20,521 RSD (or 90.4%), Šumadija and Western Serbia with 15,443 RSD (or 68%) and Southern and Eastern Serbia with 14,840 RSD or 65.3% of the national average.

At the NUTS 3 level only South Bačka had the budgetary revenue per capita above the national average (26,108 RSD or 115%). The minimum figures are in districts of Mačva and Toplica (both with 56.7% of the national average) and Jablanica with only 54.4%. In 2009, four municipalities had budgetary revenue had less than 10,000 RSD per capita (Vlasotince with 9,976 RSD p.c. Bogatić with 9,917 RSD p.c., Varvarin with 9,870 RSD p.c., Vladimirci with 9,696 RSD p.c. and Žitorađa with 9,442 RSD p.c.).

The Gini index shows that disparity on the budgetary revenues per capita is the highest at the aggregate level of NUTS 1 and NUTS 2, while the lowest is at the NUTS 3 level. This might be read that NUTS 3 level presents

functional regions where the economic wealth is fairly well distributed, while it cannot be said the same for other territorial levels. As of 2008 the Gini index is falling for all four levels, which is the aftermath of the global financial crisis.

Figure 5: Regional disparity of budgetary revenues per capita measured by the Gini index

Source: SORS, Municipalities of Serbia 2008-2010

Conclusion

Regional disparities in Serbia are among the largest in Europe, reflected in the high ratio between developed Serbia-North and lagging behind Serbia-South. Inter- and intra-regional disparities are also high, especially at the local level, as well as along the urban-rural division. In historical terms, out of 45 undeveloped municipalities of Serbia, 30 of them have not changed their development status for about four decades. Even more, regional disparities have been drastically accelerated in the transitional period 2001-2010, when peripheral regions were not able to address their developmental needs in a sufficient way. This further caused extreme imbalances in demography, income, unemployment, social welfare and living standards in general.

Disparity at the NUTS 1 level makes a clear “core-periphery” division with developed and converging Serbia-North and lagging behind and diverging Serbia-South.

Table 4: the Gini index of number of enterprises per size, 2009

NUTS level	Entrepreneurs		Micro		Small		Medium		Large		All business entities	
	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009
NUTS 1	0.01	0.04	0.36	0.37	0.29	0.31	0.22	0.23	0.29	0.28	0.11	0.13
NUTS 2	0.11	0.13	0.32	0.32	0.25	0.27	0.18	0.19	0.27	0.26	0.12	0.13
NUTS 3	0.28	0.30	0.38	0.38	0.36	0.37	0.33	0.30	0.42	0.40	0.29	0.31

Source: MERR “Report on Small and Medium-sized Enterprises and Entrepreneurship 2009”

This is clearly seen on the indicator of the budgetary revenues per capita, where the value for the Serbia-North is twice higher than in the Serbia-South, making the Gini Index of disparity above 0.35 (in 2007 and 2008). Other observed indicators (population density, employment, unemployment and business demography) also confirm the large difference in development between the North and the South.

The NUTS 2 level in Serbia was engineered in a way that disparities between regions are often smaller than at other territorial levels. Nevertheless, as Belgrade presents an economic driving force of the country, development indicators for its region are mostly higher than in other three regions. The strong economic dominance of Belgrade is reflected in the disparity on the budgetary revenues per capita (with the Gini index above 0.3 and on the GDP indicators (the Gini index close to 0.3). At this level, the highest disparity is in the population density where the Gini index reaches 0.6 (due to a high population concentration in the Belgrade, comparing to other three regions). At the NUTS 2 level the region of Vojvodina stands well on many indicators, mainly due to the economic power of Novi Sad and few other towns (Subotica, Zrenjanin, Pančevo, Indija and Stara Pazova), while other two regions, Šumadija and Western Serbia and Southern and Eastern Serbia, are lagging behind on most of the observed development indicators.

At the NUTS 3 level there is a dominance of South Bačka administrative districts (due to the economic power of Novi Sad), while districts of Toplica, Pirot and Jablanica showed poor performance on most of the indicators. Nevertheless, the Gini index showed that disparity at the NUTS 3 level is stable across the years, being close to 0.3 for majority of observed indicators. Higher discrepancy at this level is on the business demography indicators, especially on the indicator of large enterprises, where the Gini index goes beyond 0.4. The Gini index on the budgetary revenues showed the least discrepancy at the NUTS 3 level, which is due to the fact that administrative districts presents functional regions where the economic wealth is fairly well distributed among municipalities of a single district.

Nevertheless, the highest disparity in development across geography is found at the local level. Disparity at

this level is reaching extreme high values on the population density indicator, with the Gini index close to 0.9. The values of the Gini Index on other indicators are also very high, above 0.6 for employment and around 0.48 for unemployment. The Gini index on the budgetary revenues is comparatively smaller, with values between 0.21 and 0.23. Nevertheless, high extreme values of the disparities at the local level might be attributed to the issue of the comparability of the data since there is lack of validity in comparing urban municipalities of Belgrade and Niš or the city of Novi Sad on one side and remote rural and underdeveloped municipalities with only few thousand inhabitants on the other.

To conclude, regional disparities in Serbia across geography are high on all development indicators, including the ones analysed within this paper. Although the national government has adopted the Regional Development Strategy of the Republic of Serbia 2007-2012, so far very little has been done on its implementation. The implementation of the provision of the Law on Regional Development is also pending, especially in terms of creating mechanisms for financing regional development. Capacity of the line ministries and associated agencies to deal with the regional development issues needs to be advanced as well. Institutional capacity should be strengthened as well since only 4 out of 11 potential regional development agencies have successfully passed the accreditation process. It seems to be a breaking point for policy makers at the national level to decide whether they will introduce interventions that will target reducing spatial inequalities and redistribution of the wealth, or they will continue with the current *laissez-faire* practice combined with the high degree of centralisation of the political power and wealth. Maybe the incoming election in early 2012, and the new government will mobilise political resources to introduce necessary policy measures for balanced regional development in Serbia.

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