THE CONNECTION BETWEEN THE MUSLIM POPULATION AND REGIONAL DISPARITIES OF ECONOMIC DEVELOPMENT IN THE BALKAN REGION

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Abstract: The Balkan region, which is extremely heterogeneous from ethnical, religious and cultural aspects, is characterized by serious differences of economic development as well. The Muslim inhabitants in the Balkan region are living in 10 countries, in which their spatial concentration shows significant differences. The growth of the number of Muslims and the transgression of their settlement area was going on from the 15th until the 19th century. The analysis of the ethnical and economic development pattern of the Balkan region can raise the question, whether there is a connection between the spatial allocation of the Muslims and the spatial pattern of economic development.

Key words: Muslims, Balkan, regional disparities, inequalities in development

INTRODUCTION

The primary goal of our research conducted on ethnic groups in the Carpathian-Balkan region was to find out how the historical cataclysms in the twentieth century influenced the geographic location of groups forced into a minority existence (Bottlik 2008a, 2008b, 2009). Our investigation revealed that after the turn of the millennium a significant proportion of the minority groups inhabiting the region were pushed to the periphery, both socially and geographically. Although already regarded as an autochthonous population but often lacking a firm identity, and still under significant pressure by majority societies, the Muslims’ situation is the most controversial in the region.

There is an already autochthonomous, Sunni-dominated Muslim community in Eastern Europe (the Crimean Tatars) and in the countries of the Balkan region, which appeared and settled in the region in earlier periods of history. The settlement area of the latter group (which is the more important one according to its proportion within the total population) is generally rather fragmented and no city can be identified as its centre (Heuberger 1999). The existence
of these groups, the spread of Islamic culture and the fact that it had taken root in this region, is closely linked to the expansion of the Ottoman Empire in the Balkan region during the 15th century.

The aim of this paper is to discuss the connection between the economic differences of the settlement areas that contain these groups, and those of the majority society; the paper will then identify the regions where further detailed investigation is needed.

**METHODOLOGICAL BACKGROUND**

An analysis of the Balkan region raises the following problems: (i) the standardization of the data mirroring the spatial distribution of the Muslim population and (ii) those concerning the level of development, (iii) and, furthermore, the heterogeneity of the sub-national administrative units within the countries of the region.

(i) In the case of Bulgaria, Macedonia, Montenegro, Romania, Serbia and Turkey some publications of the latest censuses (see the ‘data sources’ at the end of the paper) contain statistical data on the Muslim population at lower administrative levels. Regarding the spatial distribution of Muslims living in Albania, which was officially an atheist state between 1967 and the political transformation, some useful information can be found in an atlas compiled by an Albanian-German scientific team (Asche et al. 2003). As for the Muslims of Western Thrace (Greece), the regional analysis is based on the estimations of Dokos and Antoniu (2002). Finally, the micro-regional distribution of the Muslims in Kosovo can be estimated indirectly with the usage of officially published ethnic data sets. There are no official census data on the spatial structure of Muslims in Bosnia and Herzegovina. As a result of the cruel war in the first part of the 1990s it is extremely complicated even to estimate how the post-war migration processes redrew the ethnic map of the territory, which once had the most heterogeneous ethnic structure in the whole Balkan region. Although the election results of the country’s parties, which are mainly organised along ethnic lines, are suitable for indirectly reconstructing the ethnic spatial structure, it is difficult to standardise data concerning the economic development of the microregions (opštinas), therefore this country was omitted from the detailed analysis and the significant Muslim population living there was only generally referred to.

(ii) The analysis of the economic development of the countries of the Balkan region is based on regional data sets of per capita GDP at purchasing power parity (PPP). In these kinds of analyses the different methods of gathering statistical data and the different meanings of basic indicators in the countries concerned can raise serious methodological issues. In order to avoid these problems, we have used the methodologically homogenized data sets of the Human Development Reports compiled by the UN Development Programme (the international analyses of the global organisation are based on the same data). The reports contain the value of the GDP index (one of the three components of the HDI—Human Development Index) for the sub-national administrative units (Nemes Nagy 2005). The per capita GDP (PPP) can be derived from this indicator as follows:

\[
\text{10} \times \text{GDP index}^* \times (\log_{40,000} - \log_{100}) + \log_{100} = \\
= 10 \times \text{GDP index}^* \times 2.602 + 2 = \\
= \text{per capita GDP (PPP)}^1.
\]

A further problem is rooted in the fact that in the case of the Balkan region, Human Development Reports on a specific country are usually published once

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1 A thorough description of the calculation method and its theoretical background is given in UNDP 2007, p. 356.
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... every 3–5 years and they contain data for only one year, and sometimes only at the national level. (Furthermore, no such reports are published about Greece as it is a developed country; in this case the statistical analysis is based on the data sets of the EUROSTAT Regio database, which are methodologically comparable to those ones published by the UN.) Therefore, an analysis at the sub-national level is only possible if statistics from different years are compared to each other. Regarding the availability of data sets, our research focuses on the following countries (with a year of data in parentheses): Albania (2001), Bulgaria (2003), Kosovo (2004), Macedonia (2002), Serbia (2005), Montenegro (2004), Turkey (2000) and Greece (2005). Although the distorting effect of annual economic growth cannot be filtered using this approach, its volume is generally much lower than the overall differences between the development levels of the selected countries.

(iii) The third methodological problem is to find the optimal territorial level for an analysis of regional development in the Balkan region, for it lacks a proper definition and is instead largely defined by cultural unity (Redepenning 2002). At this point, equilibrium has to be found between the endeavour to improve spatial resolution and that which ensures a meaningful comparability of territorial units. It can be seen from Table 1 that per capita GDP statistics are published only for the first sub-national level in most cases. Turkey and Greece are significant exceptions, but their administrative units at the second sub-national level are likely to be similar to the first-level sub-national units of the other countries according to their area and population—yet, the Turkish provinces prove to be rather big even on these terms (Table 2). A significantly deeper analysis would be possible in the case of Bulgaria and Kosovo, but in order to ensure a reasonable degree

Table 1. Sub-national territorial levels of the analysed countries. Per capita GDP data sets are published for the levels marked with a grey background

<table>
<thead>
<tr>
<th>Country</th>
<th>First level</th>
<th>Second level</th>
<th>Third level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>counties [qarku] (12)</td>
<td>districts [rrethe] (36)</td>
<td>municipalities [komunë, ill. bashki] (351)</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>provinces [oblasti] (28)</td>
<td>municipalities [obshtina] (264)</td>
<td></td>
</tr>
<tr>
<td>Kosovo</td>
<td>districts [rreth/distrikt] (7)</td>
<td>municipalities [komuna/opshtina] (30)</td>
<td></td>
</tr>
<tr>
<td>Macedonia</td>
<td>statistical regions [statistichski region] (8)</td>
<td>municipalities [opštini] (85)</td>
<td></td>
</tr>
<tr>
<td>Montenegro</td>
<td>municipalities [opština] (21)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turkey</td>
<td>census-defined regions [bölge] (7)</td>
<td>provinces [iller] (81; among them 5 belonging to the analysed territory)</td>
<td>districts [ičeler] (957)</td>
</tr>
<tr>
<td>Greece</td>
<td>regions, 'peripheries' [periphaeria] (13)</td>
<td>prefectures [nomoi] + autonomous area [Mount Athos] (51+1)</td>
<td></td>
</tr>
</tbody>
</table>

a Before the Law on Territorial Organization adopted on 29 December 2007. Since then the second administrative level of Serbia has been formed by 150 municipalities and 24 cities.
of comparability for all countries, we have to focus on the first level in these cases as well. The situation of Montenegro (with a population of a little over 600,000) is rather unique as its first level sub-national units are already much smaller than the average of the Balkan region—both according to area and to population. However, considering that the selected administrative units of the analysed countries basically belong to the same size category, according to their area and number of inhabitants, the distorting effect of the administrative regionalization can be regarded as being relatively moderate.

**HISTORICAL OVERVIEW**

The growth in the number of Muslims and the transgression of their settlement area—although with reduced intensity and spatial influence in time—occurred from the 15th to the 19th century. The process was basically facilitated by two factors, namely settlement policy and the effective Islamization of the Christian (and in some cases Jewish) population. Muslim settlements were drawn to strategic locations and fortresses, towns lying along the main trade and military routes (the considerable Muslim population concentrated in these areas migrated to the areas still controlled by the Ottomans during the gradual expansion of Balkan nation states in the 20th century and almost simultaneously with the withdrawal of the Ottoman Empire). From Anatolia, the core area of the Ottoman Empire, a huge mass of urban, peasant and nomadic populations settled in and assimilated (both in the linguistic and cultural respects) the autochthonous population living in the areas of Macedonia and Thrace with a closer position to the core area, or in the neighbouring Greek and Bulgarian territories. This process could have led to mass conversion in the Rodope Mountains region where linguistic assimilation was barely effective (Ermann and Ilieva 2007, Gaber 2001). Direct Islamisation mainly affected Vilayet (Bosnia) and the Shkumbini River Plains belonging to the settlement territory of the Albanians (Fig. 1).

In the Albanian regions, conversion was mainly motivated by economic interests, namely the lower taxes for the Muslims (Bartl 1968). However, the boundary between voluntary and forced conversions was not distinct. The areas with the highest

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**Table 2. The sub-national territorial levels chosen for the analysis by countries with the average area and population of the units belonging to them**

<table>
<thead>
<tr>
<th>Country</th>
<th>Chosen administrative level</th>
<th>Average area (km²)</th>
<th>Average number of inhabitants (persons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>12 counties</td>
<td>2,396</td>
<td>264,000</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>28 provinces</td>
<td>3,964</td>
<td>272,000</td>
</tr>
<tr>
<td>Kosovo</td>
<td>7 districts</td>
<td>1,558</td>
<td>300,000</td>
</tr>
<tr>
<td>Macedonia</td>
<td>8 statistical regions</td>
<td>3,214</td>
<td>256,000</td>
</tr>
<tr>
<td>Serbia</td>
<td>24+1 districts+City of Belgrade</td>
<td>3,098</td>
<td>310,000</td>
</tr>
<tr>
<td>Montenegro</td>
<td>21 municipalities</td>
<td>658</td>
<td>30,000</td>
</tr>
<tr>
<td>Turkey</td>
<td>5 provinces</td>
<td>6,796</td>
<td>2,918,000</td>
</tr>
<tr>
<td>Greece</td>
<td>51+1 prefectures + autonomous area (Mount Athos)</td>
<td>2,538</td>
<td>217,000</td>
</tr>
</tbody>
</table>
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rate of conversion (foremost in the regions of Bosnia) lay along the dividing line between the Catholic and Orthodox religious groups; therefore people lacked a strong attachment to either denomination. Furthermore, in the Albanian territories, the weak presence of the Catholic Church (characterised by poorly organised church structures and the unsatisfactory operation of monastic orders due to the harsh physical geography (Bartl 1968)) and the fact that its activity was hindered by the Ottoman

Figure 1. The elevation map (in meters) of the Balkan region

http://rcin.org.pl
administration should be emphasized as well. Under such circumstances, the important role of the orders of dervishes (e.g. the Bektashi) in the religious culture of the Muslims of South Eastern Europe (and in the spread of Islam) was not a coincidence.

In conclusion, it can be ascertained that the initially slower Islamization in the Albanian regions accelerated a little later; thus the mass conversion for economic reasons during the 17th century was the very event that gave momentum to the expansion of the settlement territory of the Albanians. However, in the case of Bosnia, there were religious reasons behind the (initially even faster) mass conversions, namely the conflict of the heretical Bogumil sect with the Western Christian churches, which were trying implacably to reconvert it (Bartl 1968, Džaja 1984). As for the geographical aspects, these processes increased the number of Muslim inhabitants, mainly in the low-lying plains, river valleys and basins of the Western Balkans, which are characterized by better agricultural conditions and that lie along commercial and military routes of strategic importance. These groups suffered significant migration losses, mainly as a result of the withdrawal of the Ottoman administration at the beginning of the 20th century and the pressure exerted by royal Yugoslavia in the 1930s (Reuter 1987).

Another geographical characteristic feature of the Muslim community was its stronger spatial concentration in the towns and nearby regions than in the case of the Christians. The bases of Muslim urban culture were religious schools financed by foundations; guilds of handicrafts; and the leading art of the Ottomans: architecture.

Besides, their legal and social status was also obviously different. Their relationship with the state and the chance of being employed in the army or in imperial institutions enabled Muslims to advance, as religious background was the main line of distinction between the people of the Ottoman Empire from the imperial point of view. Ethnic differences, which were reflected through language, had much less importance.

The withdrawal of the Ottoman Empire from the Balkans fundamentally changed the situation of the Muslim population. Not only were they forced from the new social and economic centres of the reorganized states and pushed to the peripheries, but they were dealt with as nothing more than a tolerated group of people who were an undesirable legacy of the Ottoman Empire. Therefore, in addition to their Islamic culture, the traditions and the very roots of their spiritual life became endangered, and as mentioned above, many of them decided to emigrate (Eberhard 2003).

As a consequence of migration, mostly in the first half of the 20th century, the number and proportion of Turkish speaking Muslims underwent the steepest decline. This tendency was mainly rooted in the population exchange between Turkey and Greece (from the region of Western Thrace, which was newly acquired by the latter country) and in the waves of organized emigration from the Kingdom of the Serbs, Croats and Slovenes (Poulton 2001). The policy of assimilation exerted the strongest influence upon the Bosniaks in Bosnia, the Pomaks in Bulgaria and the Torbesh in Macedonia, as their language and religion merely differed from those of their neighbours. The assimilative influence of the Albanians on the neighbouring Turkish people was also significant. At the same time, the Turkish and Bulgarian speaking Muslims who remained in Western Thrace faced permanent oppression (Telbizova-Sack 1999, Voss 2000 and 2006).

After the Second World War, the Muslims’ situation was the most balanced in the relatively open federal state of Yugoslavia (foremost in Bosnia) as a result of the relatively liberal political regime, while the population of this community in Bulgaria fluctuated because of permanent political oppression and the policy of assimilation (Stojanov 2001).

The positive demographic trends (natural growth) caused the biggest growth in the number of Albanians living in Kosovo, but the population and proportion of Muslims in Bosnia and in Bulgaria also rose,
especially after the Second World War. The relative growth rate of these minorities gained the most momentum during the last decade, when the major ethnic groups experienced a lower natural growth rate and massive emigration. The terrible war following the collapse of Yugoslavia was a major reason for the fact that the Muslims—mostly in Bosnia and Kosovo—emigrated in such large numbers (Kocsis 2007).

**THE GEOGRAPHICAL LOCATION OF THE MUSLIMS IN THE BALKAN REGION**

Apart from Istanbul (which falls outside the scope of our detailed analysis due to its size and role played in the area under survey) with a population of 10 million, if one includes its agglomeration, currently, there are 9.67 million Muslim inhabitants in the Balkan region living in 10 countries, their spatial concentration, however, shows significant differences (Fig. 2). Their biggest communities can be found in Albania (2.287 million), Kosovo (1.932 million) and in Eastern Thrace, Turkey (1.819 million), where they form the absolute majority of the local population. Although the largest Muslim community exists in Albania, as many as 70% of the country’s inhabitants belong to the Islamic religion (Asche et al. 2003). Their proportion within the local population exceeds 50% in the central and eastern provinces of Albania. The most homogeneous Muslim settlement area in the Balkan region can be found in Eastern Thrace, where the population is almost wholly Muslim, as a consequence of immigration from other parts of the peninsula during the twentieth century. In Kosovo, Albanians constitute 92% of the population, most of whom are Muslims, and the proportion of non-Albanian Muslims (Gorani, Romani) can be estimated at a further 1.5%. In the latter case there are only four komunas with a Serbian, rather than a Muslim, majority, located in the northern (Leposaviq, Zveqan, Zubin Potok) and southern parts of the country (Shtërpiçe).

The 1.275 million Muslim inhabitants of Bosnia and Herzegovina form the relative majority of the population (45% in 1995). There are no reliable data on their spatial distribution at the lower administrative or statistical levels for the last one and a half decades. We can only establish that the Bosnian War in the first part of the 1990s dramatically reshaped the spatial allocation of their settlement area. As a result of the post-war migration flows, their spatial concentration strengthened and they have recently formed significant compact settlement areas in the eastern, north-eastern (in the region of Sarajevo and Tuzla) and north-western opštinas (Bihać region) of the Federation of Bosnia and Herzegovina. Their number is also significant in some other opštinas of Herzegovina (where they form only smaller blocks and live as minorities), and—according to some indirect estimates—it is also possible that they can be found in the Bosnian Republika Srpska as well (Szönyi 2006).

The Muslim population as a community with a compact settlement area plays an important role as a religious minority in the newly proclaimed post-Yugoslav republics, namely in Macedonia (33%), Montenegro (17%) and Serbia (3%). Their most important communities are located in Macedonia and in the opštinas of the Upper Vardar Valley, in the neighbourhood of the Muslim blocks of Kosovo and Albania (Stawowy-Kawka 1998). A large proportion of the Muslims of Serbia and Montenegro are concentrated in the area of the former Sandžak of Novi Pazar, which is also an outskirt of the compact Muslim settlement areas in Kosovo and Albania. Furthermore, Muslims form the absolute majority in three other Serbian municipalities (Bujanovac, Medveda, Preševo), having recently faced the ethnic transgression of the Muslim Albanians (Kicošev 2005, Schmidt-Neke 2002). In Bulgaria, although just 12% of the population is Muslim, their settlement area is mostly sporadic with a few small blocks. They are concentrated mostly in the north-eastern obshtinas, in some others to the north
of Shumen, and in the southern border region with Greece. The Muslim inhabitants of the three regions of Western Thrace represent little more than 2% of the population of Greece. They form an absolute majority only in the peripheral valleys of the Rodope Mountain (in all the opštinas of Kardjali oblast and in Borino, Dospat, Madan, Rudozem opštinas of Smolyan oblast) lying far from the main traffic routes (Krasteva 1995).
The more than 50,000 Muslims living in Dobruja (Constanța region, Romania) form slightly more than 5% of the population of the two concerned counties. This population group does not form a compact block in space, therefore their sporadic situation is likely to strengthen in the future. Their biggest community is located in the major city of the broader region, the port of Constanța (Sallanz 2007).

**ECONOMIC DEVELOPMENT OF THE REGION**

The Balkan region, which is extremely heterogeneous in its ethnic, religious and cultural aspects, also contains major disparities in economic development. The most developed country (Greece) has an 18 times higher value of per capita GDP than that of the least developed (Kosovo), while the quotient is above 42 in the case of the chosen sub-national units: the value of the leading region, Boeotia in Greece ($40,325) can be compared to that of Norway, while the poorest, Prizren in Kosovo, stands at the level of Nigeria and Zambia with $951. However, depicting the values of the regional datasets on a thematic map (Fig. 3), the dramatic difference between Greece (which belonged to the Western world during the Cold War and has gained significant development support from the European Community since 1986) and the post-socialist countries of the region can be identified as the main source of overall inequalities. (It speaks volumes that there are only 6 post-socialist sub-national territorial units in the whole Balkan region, which surpass the most underdeveloped Greek region, Elis, according to per capita GDP.)

Repeating the calculations with the exclusion of the Greek Republic, the ratio of the maximum and the minimum falls back to 6.7 at the national level (between Serbia and Kosovo) and to 13.5 in the case of regions (between Sofia, which can be compared to Lithuania, and the already mentioned Prizren). Obviously, these values are even greater if we take into consideration the area and population of the Balkan region, which reflects the dramatic heterogeneity of the analysed territory, in terms of physical geography, politics and history.

As for the spatial aspects of the economic differences, the following characteristics are evident: there are two regions with an outstanding level of development within the post-socialist countries, namely Sofia and Belgrade—the capital cities of, in economic terms, the leading states which have a diverse economic structure dominated by industrial and tertiary activities. Their advantageous position can be traced back to the decades following the liberation from the Ottoman rule, as they profited considerably from the strongly centralized political structure of their newly proclaimed states. Although the federalist political principles of Yugoslavia somewhat limited the leading role of Belgrade, Sofia remained the main beneficiary of state-sponsored investments in the strongly centralized socialist Bulgaria. Additionally, the relatively strong economic position of the capital city (in comparison to that of the countryside) is typical of Albania as well, where the development level of Tirana mirrors the effects of Enver Hoxha’s extraordinarily centralized Stalinist regime.

Another outstanding region of the post-socialist Balkan region is the traditionally developed northern part of Serbia, predominantly formed by the Vojvodina Region that formerly belonged to Hungary. An especially high per capita GDP characterizes Novi Sad, the historical centre and main financial hub of the region, partly owing to robust petrochemical industries.

Furthermore, the relatively developed regions of the Balkans contain the leading industrial areas of Serbia, namely the districts of Morava and Nis. The centre of the first one is Čačak, a significant centre.

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2 The source of data for the international comparison is the CIA World Factbook 2005.

3 Although Turkey also had a free market economy during the Cold War, and it gained significant support (mostly military) from the United States because of its geopolitical importance, as a consequence of the historical underdevelopment of the country even the Turkish provinces lying in Europe had and have lower per capita GDP values than any Greek prefectures.
of metallurgy, paper and chemical industries (thanks to the industrialization of the socialist era), while the latter is dominated by Niš, the leading pole of the Serbian electronic industries, with competitive light industries and higher education.

Similarly, there are several relatively developed rural industrial districts in Bulgaria, as they have remained competitive since the transition mainly because of technological development and low labour costs. Important examples are the Vratsa district.
with the Kozloduy Nuclear Power Plant, which is a major source of economic production value; the Gabrovo and Stara Zagora districts in the central part of the country, well-known for their traditional food and textile industries; furthermore, the two major ports, Varna and Burgas, realizing large profits both from the growing intensity of international water traffic and from an increased tourism industry. Furthermore, the Kyustendil district in Southwest Bulgaria, which lies adjacent to the capital district and is characterized by favourable conditions for tourism, is a region in the Balkans whose development indicators are above the average.

Some further regions with a relatively high per capita GDP value can be found in Macedonia: the region of the capital city, Skopje, and the fertile Vardar Valley region (containing Pelagonia), which has economically surpassed its surrounding areas for a long time, which is the result of its important traffic routes that cross the mountainous region. Moreover, the increasingly popular coastal tourist destinations of Montenegro (Bar and Budva), the country’s capital region (Podgorica) with its flourishing tertiary sector, and the areas playing a key role in the moderate industrial production of the young country (Plužine which has the Mratinje Dam, the most important water power plant of Montenegro, and Pljevlja, that provides 100% of the country’s coal production and in which the country’s only thermal power plant is located) can be regarded as relatively developed territories of the Balkan region.

The value of per capita GDP lies above the regional average in the case of the five analysed Turkish provinces as well, which have an outstanding economic position in comparison to the other parts of their country, mainly because of their close location to Europe and to the leading metropolitan region of Turkey, Istanbul.

An antipode is the most underdeveloped—as well as geographically compact—region of the Balkans, covering Kosovo and North Albania. Both landlocked territories are—although remarkably rich in some mineral resources (especially the ores of lead and zinc in the Leposaviq district of Kosovo) – characterized by poor infrastructure, located far away from significant industrial centres of branches producing high value added goods, and relative overpopulation. Kosovo’s situation was fundamentally influenced by the growing opposition of the Albanian population against the Serbian administration (it began in the 1980s and intensified during the 1990s) and the fragile political situation brought about by the ensuing political deadlock, which was not resolved even after Kosovo’s proclamation of independence in 2008.

However, the sub-national units of Kosovo show remarkable disparities in development. At the top of the list we can find the surroundings of the capital, Pristinë, and several districts of Mitrovica that were barely affected by the operations of the Serbian Army, as the majority of their population is Serbian. The regions with the worst economic conditions are located in the predominantly agricultural areas of Southwest Kosovo.

**THE CONNECTION BETWEEN ECONOMIC DEVELOPMENT AND THE PROPORTION OF THE MUSLIM POPULATION**

The analysis of the ethnic and economic development patterns of the Balkan region raises the question as to whether there is a connection between the spatial allocation of Muslims and the spatial pattern of economic development. In order to answer this question, we have used the method of linear regression analysis, where the sub-national territorial divisions of the Balkan region have been chosen as analytical units, the proportion of Muslims in the overall population are taken to be an independent variable, and per capita GDP as a dependent variable. The result of the calculation is a negative connection, indicating that regions with a higher ratio of Muslims are usually characterized by a lower level of development. As the $R^2$ value of the equation is 0.305, the connection can be recognized as not being deterministic but...
statistically significant. An even stronger correlation can be revealed when using exponential regression analysis against a linear one, as $R^2$ reaches 0.469 in this case (Fig. 4).

However, the results raise some serious methodological issues. Firstly, it should be clearly identified with the relevant findings produced at the geographical level. Although the analysis is based on regional data sets, the relatively strong positive connection between economic development and ethnic structure can generally be traced back to the similar relationship that exists at the national level. As the more developed countries of the Balkan region are characterized by a lower proportion of Muslim population and vica versa, even the results of our regional analysis unavoidably mirror, to some extent, these national level regularities. Thus, it is worth examining the connection between the two phenomena within some selected countries in order to filter out the influence of national level connections. Those countries that show a relatively significant heterogeneity of religions and where the geographical distribution of various religious groups follows different patterns, may be particularly interesting in these respects. For these further analyses we have chosen Bulgaria and Kosovo. In Bulgaria, although only 12% of the total population is Muslim, the same indicator shows serious disparities at a lower level: of the 264 municipalities, 72 contain Muslims that form more than one-fourth of the local population, and, furthermore, 37 of these 72 municipalities are characterized by an absolute majority of Muslims. At the same time, less than 1% of the inhabitants are Muslims in 86 municipalities. The other example, Kosovo also has a rather fragmented spatial structure of religions. While the majority of Muslims is obvious (85%) at the national level, in 7 municipalities (out of 30), form more than 95%
of the population; there are 5 municipalities where their proportion is below 50%, and in three cases where it is below one-third.

If we repeat our former analysis for the municipalities of these two countries, the results seem less convincing than before. Although the negative correlation between our two indicators remains obviously negative, the significance of the relationship is weaker: $R^2$ is equal to 0.2876 in Kosovo (Fig. 5) and 'only' 0.0837 in the case of Bulgaria (Fig. 6). Furthermore, the former value also becomes much lower if we exclude Leposaviq from the sample of Kosovo as it exerts a strong deteriorating effect on the overall results. Leposaviq is the most developed municipality of Kosovo, largely due to its long traditions in the mining industry and metallurgy. The Trepča State Combine, founded during the 1920s, was a major employer of labour not only in Kosovo but in the whole Southern part of Yugoslavia. As it attracted a large amount of employees from other regions as well, it is small wonder that the Muslims form only 10.5% of the municipality's population. Meanwhile, Leposaviq—although its economic production shrank dramatically after the transition—is still the most developed municipality of Kosovo with a per capita GDP of 8,374 USD (it is 5.3 times bigger than that of the second most developed municipality). Excluding this unit from our research means that the $R^2$ of Kosovo decreases to 0.0778 (Fig. 5).

However, it does not necessarily undermine our findings that the regions with a higher proportion of Muslims usually seem to show a lower level of economic development. Considering that $R^2$ value is equal to the square of linear correlation coefficient, our results indicate a kind of linear correlation ($-0.25$ for Bulgaria and $-0.28$ for

![Figure 5. The statistical connection of the proportion of the Muslim population and per capita GDP in the municipalities of Kosovo](http://rcin.org.pl)
Kosovo without Leposavić), which is far from insignificant for such a big sample, especially in the case of 264 municipalities in Bulgaria. It is a natural phenomenon that the lower spatial level we are dealing with the weaker the correlation of the given indicators is. Thus, it can be underlined that the negative connection between the proportion of the Muslim population and economic development is a fact not only mirroring national tendencies but also regional, or even micro-regional ones (Stojanov 1997, Eminov 1999).

With regard to our findings, it is also of considerable importance whether the statistical connections described above are simply strange coincidences or whether they hide a causal relationship, and if the latter is the case, what the nature of this relationship is. When evaluating the results of the analysis, we can fall into the trap of ecological inference, meaning that the usage of data referring to big systems with a significant number of units can be misleading if used to draw conclusions about the individual behaviour and situation of the units forming the system. In the given case, the danger of ecological inference would occur if the higher ratio of the Muslims were interpreted as a direct cause of economic underdevelopment, with the suggestion that some kinds of suggested abilities and inefficiency of the Muslim labour force were directly responsible for this state of affairs. Although this hypothesis could only be unambiguously proved or denied through the evaluation of individual data sets (e.g. census questionnaires), we have good reason to suspect that the statistical connection of the two phenomena is actually rooted in a third factor, namely that the regions with a higher

\[ f(x) = -19.95x + 4592.96 \]

\[ R^2 = 0.06 \]

Figure 6. The statistical connection of the proportion of the Muslim population and per capita GDP in the municipalities of Bulgaria

That is an issue which makes it much easier to suggest a connection between two phenomena at a higher geographical level. About this scale effect see Johnston 2009.

The connection between the Muslim population and regional disparities of economic development…

proportion of Muslims are those with a priori worse economic conditions, poor infrastructure, rural economic structures and which lie on the peripheries.

Another relevant question is how far the underdevelopment of the rural areas results from factors being independent from the demographic situation. As a consequence of the settlement policy of the Ottoman Empire, Muslims flowed mainly towards low-lying areas with better agricultural conditions. (Furthermore, the relative nearby location of the imperial core areas [Istanbul] could also have been an important attractive factor). However, the social and economic context changed completely during the 20th century. This led to the outflow of (predominantly Muslim) military and administrative personnel (Crampton 1990). Thus, the remaining Muslim communities show the characteristic features of agricultural societies. Furthermore, the overall economic importance of agriculture has been shrinking in the region, and the international demand for the traditional products of the Muslim communities (e.g. tobacco in the case of the Bulgarian Turks) has fallen.

It should also be taken into consideration that the political leaderships handled the Muslims as unwanted communities because of their aversion to the Ottoman Empire. Therefore, they not only supported a policy of assimilation and urged Muslims to emigrate, but used economic instruments as well to ‘consolidate’ the situation. The massive outflow of Muslims exerts the strongest influence on the educated strata, the intelligentsia, so the remaining communities become more and more disorganised and vulnerable. The problem is strengthened by the fact that the main opportunity for the Muslims to advance, namely actively participating in the education system, weakens their ties to their own communities.

In the analysed countries Muslims had very limited possibilities to break out of their disadvantageous social and economic situation, which strengthened the underdevelopment of their settlement areas, even compared to the core regions of the given countries. The economic development of the regions with Muslim majorities has been and still is excluded from the strategies of the national governments. Therefore, during the transformation and in a time of economic crises the situation of individuals is also becoming worse.

CONCLUSION

To conclude, during the expansion of the Ottoman Empire into the Balkans the Muslim population was at the political and social centre. Muslims who settled in the region as a result of the migration processes fostered by the Ottoman administration and the mass conversion which was triggered by granting Muslims substantial privileges, gradually emigrated from the region or were pushed to the periphery both socially and geographically during the intensification of national movements in the Balkans in the 19th century. Our research carried out at the sub-national level, covering a substantial part of the Balkan Peninsula, has confirmed this.

The Muslim communities of the Balkan region are not only characterized by linguistic dividedness but they belong to different countries with different degrees of political development during the 20th century. Thus, the people believing in Islam often stood at the focal point of social tensions for cultural reasons. Because of Albania’s historical isolation rooting in the socialist era, the collapse of Yugoslavia after the terrible conflicts of the 1990s, the EU membership of Greece for almost three decades, and membership of Romania and Bulgaria beginning just few years ago, and the special geopolitical and social situation of Turkey, the countries where the majority of the Balkanian Muslims are living will possibly move along different lines of development in the near future. The marginalised social and economic status of Muslims in the countries under survey—a general phenomenon—and their often extremely deviating demographic behaviour in comparison to neighbouring

http://rcin.org.pl
ethnic groups, keep widening the gap between them and the majority societies (Westoff and Frejka 2007).

Therefore, because of the uncertain political integration of their countries and the rising difficulties of their social integration, the Muslim people are likely to remain destabilizing factors in the Balkan region. At the same time, there are obviously some specific local issues responsible for these processes which we will investigate at some point in the future.

DATA SOURCES

Albania

Bulgaria

Kosovo

Macedonia

Montenegro

Serbia

Turkey
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Paper first received: July 2010

In final form: December 2010