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In the centre, but still on the periphery: Is there any room for development of socio-economically deprived region in Slovakia?

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In the centre, but still on the periphery

Is there any room for development of socio-economically deprived region in Slovakia?

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Abstract

Purpose – Geographical disparities in the light of regional development constitute ever present issue affecting academic debates as well as decision process of policy makers also in the Central and East European countries, mainly during the last two decades. The purpose of this paper is to outline the economic development of one of the most underdeveloped regions in Slovakia, of Banská Bystrica, during the transformation stage of post-socialist societal development, with emphasis on the period after 2000, in the context of the economic performance related to other regions of the country.

Design/methodology/approach – For this purpose, several economic indicators (unemployment rate, vacancies, employment in economic sectors, wages, gross domestic product, foreign direct investment and housing construction) are utilised, whose common contribution to assessing the economic performance of a territorial system is secured by using the Technique for Order Preference by Similarity to Ideal Solution (TOPSIS) methodological approach. Thus, analytical part of the study stems from standard statistical data, enriched by 11 in-depth interviews conducted with stakeholders involved in socio-economic and political life of the region.

Findings – Of internal factors, innovation capacity of the region and supporting the business environment appear to be a key for its further economic development. Attractiveness for foreign direct investment as well as social cohesion of the EU are considered the crucial factors of regional development stemming from the external environment.

Originality/value – Using TOPSIS method and series of in-depth interviews with regional stakeholders the authors identified development prospects of underdeveloped Banská Bystrica region, in the context of opportunities and threats forming its presence in the near future.

Keywords Regional development, Economic growth, Slovakia, Disparities, Banská Bystrica region, Regional economy

Paper type Research paper

1. Introduction

Within the current literature on regional development issues there can be identified a relatively large number of theoretical concepts seeking to describe and explain this socio-economic and political phenomenon. Building on classical studies of regional development (e.g. Armstrong and Taylor, 1985; Chisholm, 1990; Martin and Sunley, 1998; Blažek and Uhlíř, 2011) claim, there are two basic groups which various theoretical approaches can be included to. The first group of theories stresses the importance of convergence forces in regional development of each spatial unit, while aim is to minimise the differences in economic development between regions and ultimately achieve their similar output level. The second approach draws attention to the fact that when we talk

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about regional development, enlarging the economic disparities between the spatial units constitutes the fundamental need of prosperity. It is not unusual that when evaluating levelling or differentiation mechanisms of regional development both convergence and divergent forces play a crucial role.

Theory of cumulative causation formulated by Myrdal (1957) and Hirschman (1958) represents one of the most popular theory of regional development, which emphasises not only territorial effects of negative nature (back-wash), but also of positive orientation (spread and trickle-down effects) in the development of successful regions in comparison with lagging ones. Other theoretical approaches represented for instance by Friedmann (1972) take into account the chronology of the regional development phenomenon, when widening inter-regional differences are successively being replaced by the process of their gradual wiping. Hampl (1988, 1998) in his concept of regional development considered the role of hierarchy related to social and economic phenomena. Volatility of divergence and convergence of development also remains the question. Another approach to theories of regional development and their systematisation is took by Markusen (1985), which distinguishes between inductive and deductive methods of study, as well as the role of supply and demand in the process concerning the growth of regional disparities and implementing regional development policy. In this context, issue on state intervention and the role of local and regional government is very important (Prestwich and Taylor, 1990; Blažek, 1993).

As Dawkins (2003) indicated in his study, more recent theories of regional development try to answer questions arising from the convergence approach and the neoclassical model of economic development. Academia had previously adopted the view that when examining regional development the role of spatial relationships within regional development should not be ignored that resulted in location theory concept emphasising the importance of location factors within industrial production (Weber, 1929; Hoover, 1937; Greenhut, 1956; Isard, 1956, 1960).

The primary aim of the paper is to offer basic characteristics on topical state and development of Banská Bystrica region based on selected economic indicators in inter-regional comparison and using Technique for Order Preference by Similarity to Ideal Solution (TOPSIS) method to describe the economic position of the region within the NUTS 3 level of spatial hierarchy. We want to name the aspects affecting the trajectory of economic development as well as changes of economic structure, in the context of social cohesion policy, and to clarify the role of internal and external factors for development. Objective is to identify the development perspectives of the region in the coming period, in the light of its strengths and weaknesses, while respecting the opportunities and threats arising from socio-economic condition of the region as well as nation-wide situation and European context. To fulfil objectives mentioned above we ask a number of partial research questions as follows:

- RQ1.* What are the main trends in restructuring the regional economy?
- RQ2.* What factors of regional development are the most important (exogenous, endogenous, structural, socio-political and others)?
- RQ3.* What are the main obstacles that hinder the development process in the region?
- RQ4.* What are the main opportunities and threats for the development of the region?
- RQ5.* How could we specify future objectives (spheres) of development policy?

2. Theoretical background

The concept of regional development has been very often associated with the idea of economic growth that stresses importance not just of natural resources that the region has available, but also the social and political context. This broader perspective is particularly

important to maintain the competitiveness of the given territorial unit, which is dependent not only on the endogenous characteristics of businesses, but also the conditions that surround them (e.g. Scott, 1995; Cossentino, 1996; Hudson, 1998; Pyke, 1999). In this context, attention is drawn to the quality of social and environmental protection, available infrastructure, technological development level, availability of capital, connection to global production networks and the role of stakeholders at different hierarchical levels.

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At the turn of 1980s and 1990s, new growth theory started to domesticate within an academic debate trying to understand the issues of economic development, especially in developing and emerging countries (Romer, 1986; Lucas, 1988; Aghion and Howitt, 1992). Contemplating economic development of regions, this theory emphasises the importance of knowledge transfer in particular, which dominates the role of capital as well as labour and produces so-called spillover effect in a given business environment beneficial for a wide diapason of companies. In this process, involvement of both political decision makers and stakeholders of different hierarchical levels is necessary. This effect relates mainly to information technology sector (Meier, 2000). However, there is also an opposing position on this approach (e.g. Cornwall and Cornwall, 1994; Skott and Auerbach, 1995), which criticises that for its overemphasis on the concept of knowledge transfer and ignoring the broader context of the process of relocation related to labour and capital, and other structural changes, institutional background development included.

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If we want to talk about development strategy of a particular region, cooperation of several actors at regional level is necessary, respecting mutually beneficial relations and the concept of social cohesion. As is claimed by Hudson (1998), a comprehensive socio-economic development of certain spatial unit is not possible without respect for the principles of social cohesion and inclusion of all social groups living in. Fulfilment of this task is a very complicated matter, as large number of actors with different development prospects enters the game which could complicate efforts to finding a reasonable consensus (Garmise, 1995). However, practical decisions on further development of the spatial system are the responsibility of a relatively small group of (elected) representatives who are under the real risk related to misalignment of interests attributed to some societal subsystems at the expense of other one, probably less organised. Risk of uneven intra- and inter-regional development lies in the concentration of resources in several development poles and industries on the one hand, holding back the development of the whole spatial system by economically less successful structural and spatial subsystems on the other (Dunford, 1995).

In the context of regional economic development, theory of coordination failure is becoming topical again. The importance of cooperation between the various segments of the economy for regional development and the role of government in this process started to be emphasised in the 1940s and 1950s of the last century, while the term “big push” became very popular (Rosenstein-Rodan, 1943; Nurkse, 1953; Hirschman, 1958). As is claimed by Meier (2000), this concept lost largely its relevance when centrally planned economies collapsed. Nevertheless, the issue of regional development is recently resolved through the prism of coordination failure theory again. Thus, the economic success of territorial units depends not only on productivity of partial enterprises, but also ability of cooperation, quality of infrastructure and regulatory processes (Hoff, 2000; Rodriguez-Clare, 2005; Bowles *et al.*, 2006; Glăvan, 2008). If market forces generate negative side effects, intervention by the central, regional or local government is becoming a necessity. This approach is criticised mainly because of failures arising from the setting of development policies that can have long-term effects (Killick, 1976; Hoff and Stiglitz, 2000; Dang and Pheng, 2014). Therefore, when examining the socio-economic development concerning any spatial system it is important to seek proper consensus between the advantages and disadvantages of market mechanism in the context of the regulatory functions of national, regional and local authorities, as well.

3. Methodology

At the beginning of empirical part of the paper we analyse socio-economic data of the Statistical Office of the Slovak Republic at NUTS 3 regional level (Figure 1) derived from the DATAcube database when evaluating the selected economic indicators of Banská Bystrica region. Position of Banská Bystrica region is assessed not only through the prism of inter-regional comparison, we also work with an average value (mean) of all regions as well as regional median since there are a relatively large territorial differences in Slovakia (especially between Bratislava region and the remaining ones). Due to different availability of data sets provided by the Statistical Office, period under study for the evaluated indicators is not always the same, but we use the most recent data of every indicator available anyway. Because of the data comparability, in some cases it is necessary to calculate their value to a number of residents for the territorial unit. When considering inter-regional differences by TOPSIS method, trends of following economic indicators are taken into account, although we further comment development of only those selected to the labour market (1, 3) and economic performance (5, 6, 7) of the region:

- (1) unemployment rate 2001-2014 (at NUTS 3 level);
- (2) vacancies per thousand inhabitants 2008-2014 (at NUTS 3 level);
- (3) employment in sectors of the economy 2014 (at NUTS 3 level);
- (4) average monthly wage 2001-2013 (at NUTS 3 level);
- (5) gross domestic product per capita 1995-2013 (at NUTS 3 level);
- (6) foreign direct investment per thousand inhabitants 1997-2013 (at NUTS 3 level); and
- (7) dwellings completed per thousand inhabitants 2001-2014 (at NUTS 3 level).

To evaluate the position of the region under study in inter-regional comparison based on the values of the set of indicators mentioned above (except the indicator of employment in sectors of the economy, whose inclusion in the model would be significant complication of its functionality in respect to volume and structure of data involved) we use TOPSIS method when evaluating three turning point years – 2003 (before Slovakia's accession to the EU), 2008 (onset of the global economic crisis) and 2013 (decay of the crisis).



Figure 1.
Territorial division of Slovakia by self-governing regions

Source: Statistical Office of the Slovak Republic (2015)

TOPSIS method

TOPSIS method originally developed by Hwang and Yoon (1981) is known as one of the most classical multi-criteria decision-making method (e.g. see also Opricovic and Tzeng, 2004; Shih *et al.*, 2007; Manokaran *et al.*, 2011). In the context of Visegrad Four countries, it was recently utilised by Poledniková (2014).

It constitutes a representative of shortcut methods designed to minimise the distance from the ideal solution. These methods use an ideal variant as the object of aspiration. The selected “best” compromise variant is then the one that is according to the selected metrics the closest to ideal option.

TOPSIS method provides a complete ordering of all variants. To solve the problem, the multi-criteria decision matrix as well as weight vector of individual criteria have to be found out. The main principle of this method is to identify such a variant that is closest to the positive ideal solution, and farthest from the negative ideal solution.

The calculation procedure is as follows:

- (1) to calculate normalised multi-criteria decision matrix:

$$R = (r_{ij})$$

using the formula:

$$r_{ij} = \frac{y_{ij}}{\left(\sum_{i=1}^p (y_{ij})^2\right)^{\frac{1}{2}}}, \quad i = 1, 2, \dots, p, \quad j = 1, 2, \dots, k$$

After this transformation, the columns in the matrix are vectors of unit size by Euclidean metrics.

- (2) to calculate weighted multi-criteria decision matrix:

$$W = (w_{ij})$$

the way that the j th column is multiplied by the appropriate weight is as follows:

$$W_{ij} = (v_j r_{ij})$$

- (3) to determine positive ideal solution:

$$H_j = (\max_i w_{ij}), \quad j = 1, 2, \dots, k,$$

and negative ideal solution:

$$D_j = (\min_i w_{ij}), \quad j = 1, 2, \dots, k.$$

- (4) to calculate distance from positive ideal solution using formula as follows:

$$d_i^+ = \left(\left(\sum_{j=1}^k (w_{ij} - H_j)^2 \right) \right)^{\frac{1}{2}}, \quad i = 1, 2, \dots, p,$$

and from negative ideal solution using formula below:

$$d_i^- = \left(\left(\sum_{j=1}^k (w_{ij} - D_j)^2 \right) \right)^{\frac{1}{2}}, \quad i = 1, 2, \dots, p$$

For calculation of distance, Euclidean distance measure was utilised.

- (5) to calculate relative distance from negative ideal solution using formula below:

$$c_i = \frac{d_i^-}{d_i^+ + d_i^-}, \quad i = 1, 2, \dots, p$$

Variants are then arranged in descending order according to the c_i values.

Indicators under study were also tested by Z-score method, with almost identical outcomes (using Z-score statistics, we observed the same order of regions in question, with one exception, as Banská Bystrica region occupied seventh of eight positions overall).

For those indicators (unemployment rate, employment in public administration, foreign direct investment per thousand inhabitants and dwellings completed per thousand inhabitants) having data available on hierarchically lower territorial level (at NUTS 4), we created maps reflecting the topical state of their spatial differentiation. When evaluating strengths, weaknesses, opportunities and threats of Banská Bystrica region we used results of GRINCOH project carried out in chosen parts of Central and Eastern European states. Development of Banská Bystrica region after 1989 is reflected, but we primarily emphasise period after the country's accession to EU in 2004 as well as the one connected to the global economic crisis. We try to identify problems concerning transformation process as well as current state of regional development, regional policy and EU funds implementation in the case of Banská Bystrica region.

Analytical part of the study stems from standard statistical data, enriched by 11 in-depth interviews conducted with stakeholders involved in socio-economic and political life of the region.

Institutions covered by in-depth interviews:

- (1) Banská Bystrica City Office, Department of Social Affairs and Project Management.
- (2) Zvolen City Office, Department of Urban Development.
- (3) Office of Banská Bystrica Self-governing Region, Department – Intermediate/Management Body for Regional Operational Programme.
- (4) Office of Banská Bystrica Self-governing Region, Department of Regional Development.
- (5) Banská Bystrica Regional Chamber of Commerce and Industry.
- (6) Regional Development Agency in Banská Bystrica.
- (7) Business Incubator and Technology Centre Banská Bystrica.
- (8) SARIO – Slovak Investment and Trade Development Agency, Regional Office Banská Bystrica.
- (9) Matej Bel University, Department of Geography, Geology and Landscape Ecology.
- (10) Matej Bel University, Faculty of Economics, Department of Public Economy and Regional Development.
- (11) Rural Parliament of Banská Bystrica Region and Regional Office of National Network for Rural Development.

4. Results – trajectories of economic development, structural change and future prospects

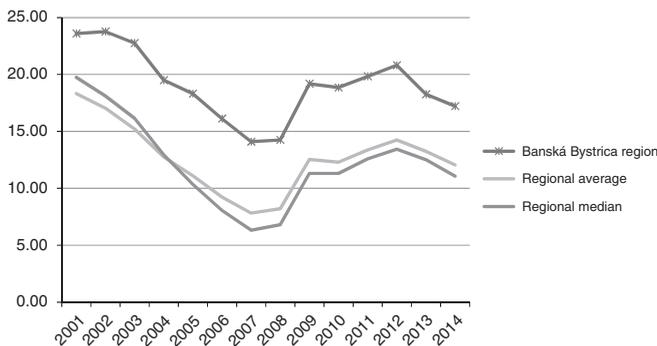
Situation on regional labour market

Unemployment rate. Labour market situation in this region is belonging to the worst in the Slovakia in long-term view. Unemployment rate had improved from its peak levels in 2001-2003 to more stable level about 19 per cent since 2009, but still very high above regional average and median as well (Figure 2). Such improvement reflected positive impact of joining EU and economic expansion until the beginning of the economic crisis in 2008. Despite expectations, we cannot document any substantial changes in regional labour market within the last years, even linked to financial and economic crisis. Situation seems different if registered unemployment is taken into account. Unemployment worsened from 14.25 to 20.81 per cent between years 2008 and 2012, but after we can observe important decrease (17.22 per cent in 2014). However, registered unemployment in part of districts is currently slightly below 30 per cent (Figure 3). Mentioned number indicates certain portion of unemployed persons working within “unofficial economy”, probably in agriculture, forestry and construction sector.

Sector employment. Banská Bystrica region has been substantially influenced process of post-socialist economic transition. It is one of the most affected regions, due to unsuccessful economic restructuring. Substantial part of its inherited economic base collapsed or reduced its activities during the post-socialist period. The traditional industrial base of the regions as machinery industry (including armament industry), mining, textile, wood processing and food industry had faced serious problems with competitiveness. As a result, they considerably reduced their employment, or almost totally collapsed (especially sectors like glass, textile and food processing industries appeared as non-competitive). Also agriculture and forestry faced similar situation, although with minor role in regional economy. Down-scaled old and new economic activities were insufficient in replacing previous production levels and employment. Only minor part of industry had been successful in modernisation and increased its productivity (e.g. metallurgy). As a result we can observe higher dependence on employment in public sector (Table I and Figure 4). The negative impact of post-socialist economic transformation we can consider as much more important comparing to impact of crisis.

Economic performance of the region

Gross domestic product. The economic development in region can be assessed in absolute terms as positive. It documents growth of regional gross domestic product per capita from



Source: Statistical Office of the Slovak Republic (2015)

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but still on the
periphery

Figure 2.
Unemployment rate
(per cent) of Banská
Bystrica self-
governing region in
2001-2014

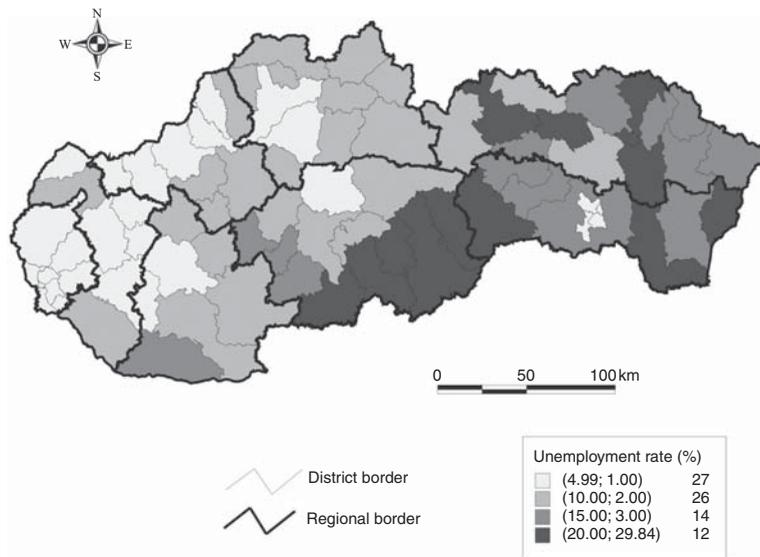


Figure 3.
Unemployment rate
(per cent) of Slovak
districts in 2014

Source: Statistical Office of the Slovak Republic (2015)

EUR3,000 (1995) to almost EUR10,000 (in 2013), but still below regional average and median as well (Figure 5). Development trend is not positive in long-term inter-regional perspective. The economic performance of the region is lagging behind other Slovak regions. While regional GDP per capita had been about 85 per cent of country average at the beginning of the decade (e.g. in 2002-2003), it has decreased below 75 per cent of national average to the end of decade and present. The regional economy suffered its location and structural disadvantages since the early transformation period. Its position worsened its minor development dynamics during the most positive economic development period 2004-2008 in Slovakia. While majority of regions enjoyed, in more aspects, quite outstanding scale economic expansion in this period, it was not so in this region.

Investment on regional economy. This region is less attractive for foreign investments comparing to other Slovak regions. There is only minor set of more important foreign investors. Most of them took-over successful older companies, while only minor set are new green field investments (Continental, Johnson Controls). Accessibility of the region due to missing motorway connection had been for a long period, one of the crucial factors that caused less attraction of this region. Now is already under operation full motorway connection from Bratislava to Zvolen and Banská Bystrica, but not to more remote eastern parts of the region. Another factor also mentioned by respondents is absence of qualified workforce and not completely prepared sites for new investments (despite the fact that there are delineated locations, e.g. for industrial parks, they are not completely prepared, with absenting networks and services prepared to immediate use). Banská Bystrica region missed periods when Slovakia had been the most attractive for foreign investments, so only very limited amount of investments are located in the region (Figure 6). The expected shift to the east stopped economic and financial crisis. As a result, by 2013 only 2.5 per cent of all foreign direct investment in Slovakia is located in Banská Bystrica region (Figure 7).

Absence of higher amount and more diversified FDI caused serious difficulties in restructuring and modernisation of regional economy. Absence of FDI inflow substantially reduced chances for more technologically advanced and innovative production (what happened

Sector of economy/region	SR	BA	TT	TN	NR	ZA	BB	PO	KE
<i>1st sector</i>									
Agriculture, forestry and fishing	2.87	0.57	4.73	2.65	4.87	2.81	3.97	3.85	2.45
<i>2nd sector</i>									
Industry	28.41	13.95	35.34	47.71	31.98	32.57	28.30	27.29	27.26
Mining and quarrying	0.54	0.26	0.29	2.65	0.06	0.30	0.44	0.19	0.47
Manufacturing	24.92	12.17	31.28	42.28	28.30	28.94	24.83	23.73	23.05
Electricity, gas, steam and air conditioning supply	1.30	0.87	1.60	1.11	1.81	1.55	0.88	1.17	1.81
Water supply; sewerage, waste management and remediation activities	1.65	0.65	2.16	1.66	1.82	1.78	2.16	2.20	1.94
Construction	4.30	3.85	4.10	3.17	5.30	5.07	3.85	5.14	4.28
Wholesale and retail trade; repair of motor vehicles and motorcycles	14.11	16.99	11.97	13.11	13.71	14.68	13.85	13.02	12.17
Transportation and storage	7.20	8.48	7.41	5.19	6.62	6.35	7.41	5.28	9.15
<i>3rd and 4th sector</i>									
Accommodation and food service activities	1.63	2.33	0.96	1.53	1.23	1.54	1.17	2.43	1.12
Information and communication	2.71	7.12	0.26	0.65	1.24	1.73	1.51	0.42	3.29
Financial and insurance activities	2.24	5.73	1.17	0.82	1.05	1.09	1.46	1.39	1.25
Real estate activities	1.31	1.73	1.42	0.97	1.58	0.98	0.82	1.24	1.21
Professional, scientific and technical activities	3.81	9.84	2.38	1.18	2.86	1.64	1.97	1.75	2.01
Administrative and support service activities	3.64	6.04	4.72	2.21	4.00	1.63	1.84	2.69	3.31
Public administration and defence; compulsory social security	9.01	8.28	8.43	6.47	9.15	7.60	11.63	10.63	10.68
Education	9.38	6.58	9.12	7.71	7.98	11.78	11.39	12.70	10.94
Human health and social work activities	7.01	5.46	5.96	5.25	6.37	8.35	8.92	8.94	8.45
Arts, entertainment and recreation	1.41	1.77	1.18	1.01	1.30	1.43	1.19	1.69	1.25
Other service activities	0.97	1.27	0.84	0.37	0.76	0.75	0.73	1.53	1.18

Notes: BA, Bratislava; TT, Trnava; TN, Trenčín; NR, Nitra; ZA, Žilina; BB, Banská Bystrica; PO, Prešov; KE, Košice. Dark grey colour means the highest relative number of employees in inter-regional comparison, the light the lowest one

Source: Statistical Office of the Slovak Republic (2015)

In the centre,
but still on the
periphery

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Table I.
Employment in
particular sectors of the
economy (per cent) of
Slovak self-governing
regions in 2013

in other Slovak regions). From this reasons regional economy is only partly integrated into global production networks. It is well reflected that only minor set of branches and companies is strongly export oriented. Nevertheless, these foreign companies provide significant number of workplaces and also attracted other new companies into the region.

Housing construction. Housing construction as an important indicator of economic performance concerning the monitored territorial units, as well as their social conditions, shows considerable inter-regional differences. The Banská Bystrica region was traditionally characterised by slow pace of housing construction considerably below regional average and median as well (Figure 8). The lowest number of dwellings was built in this region compared to other ones in Slovakia in 2005 (1.2 dwellings per thousand inhabitants), but situation has not improved significantly until now (1.4 in 2014). It is not surprising that this indicator shows the best numbers in the regions situated in the west as Bratislava (5.7) and Trnava self-governing region (4.2), which are traditionally represented by the lowest unemployment rate among all regions of the Slovak Republic. Conversely, the housing construction is the least intense in the south of Slovakia and the eastern parts of the country as well. The Banská Bystrica self-governing region has shown dichotomy once again (Figure 9), since the western part of the region led by the Zvolen district achieves significant pace of housing construction, whereas territories located in the east of region can be

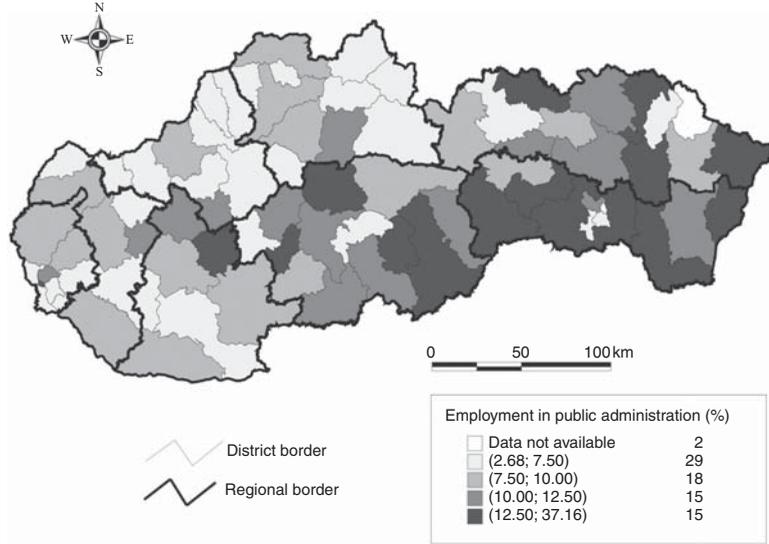
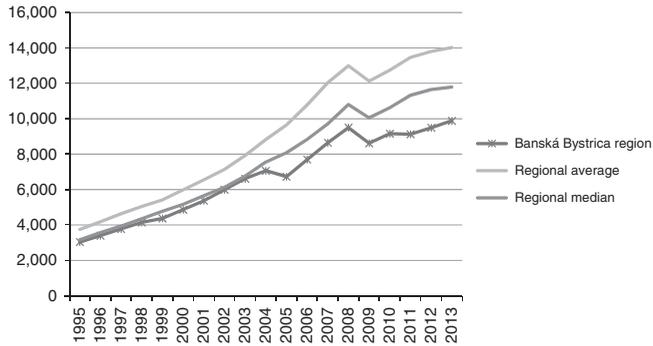


Figure 4. Average registered number of employees in public administration, defence and compulsory social security of Slovak districts in 2013

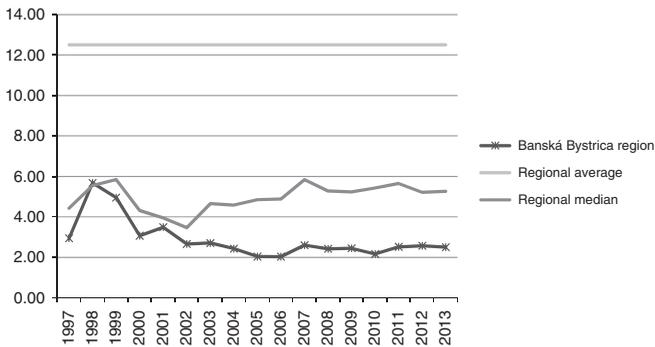
Source: Statistical Office of the Slovak Republic (2015)

Figure 5. Gross domestic product per capita (EUR) of Banská Bystrica self-governing region in 1995-2014

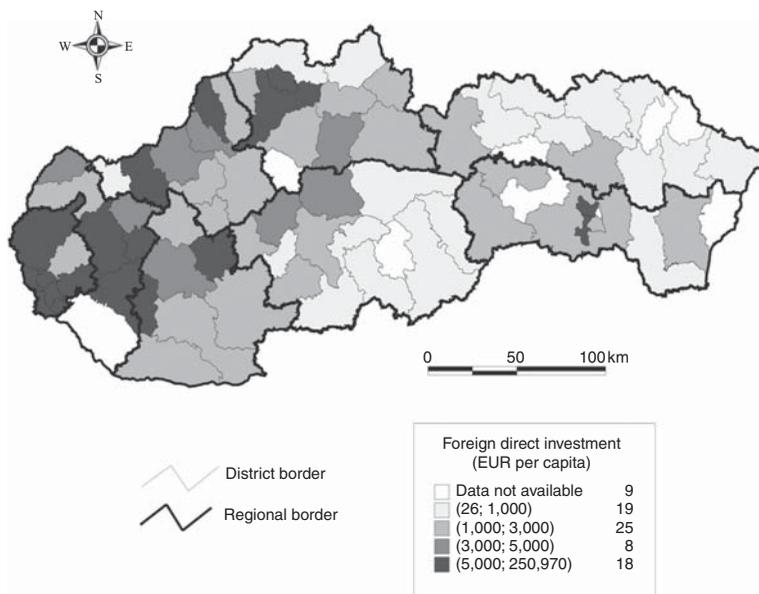


Source: Statistical Office of the Slovak Republic (2015)

Figure 6. Foreign direct investment per thousand inhabitants of Banská Bystrica self-governing region in 1997-2013



Source: Statistical Office of the Slovak Republic (2015)

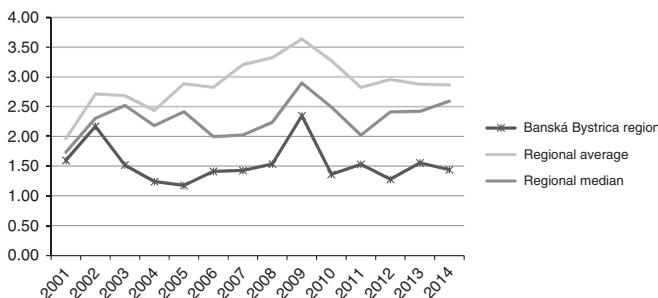


Source: Statistical Office of the Slovak Republic (2015)

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periphery

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Figure 7.
Foreign direct
investment
per thousand
inhabitants of Slovak
districts in 2013



Source: Statistical Office of the Slovak Republic (2015)

Figure 8.
Dwelling completed
per thousand
inhabitants of Banská
Bystrica self-
governing region
in 2001-2014

considered as the least attractive for real estate developers not only within the region, but also throughout the whole territory of the Slovak Republic (along with the eastern part of the Prešov region).

Taking into account the development of all indicators under study at NUTS 3 spatial level for turning point years of 2003 (before the country's accession to the EU), 2008 (onset of the crisis) and 2013 (decay of the crisis), we find that the Banská Bystrica region ranks to the economically least advanced in Slovakia (Table II). Before entering the EU it occupied the last place among all eight regions in the sum of monitored indicators (score = 0.067) as was lagging behind also economically underdeveloped regions of Prešov, Košice and Nitra (with values below 0.150). For this region, the period from Slovakia's EU accession to the onset of the global economic crisis meant a slightly positive move from the last position to the front of the Prešov region located to northeast, nevertheless with the score (0.046) lower than five

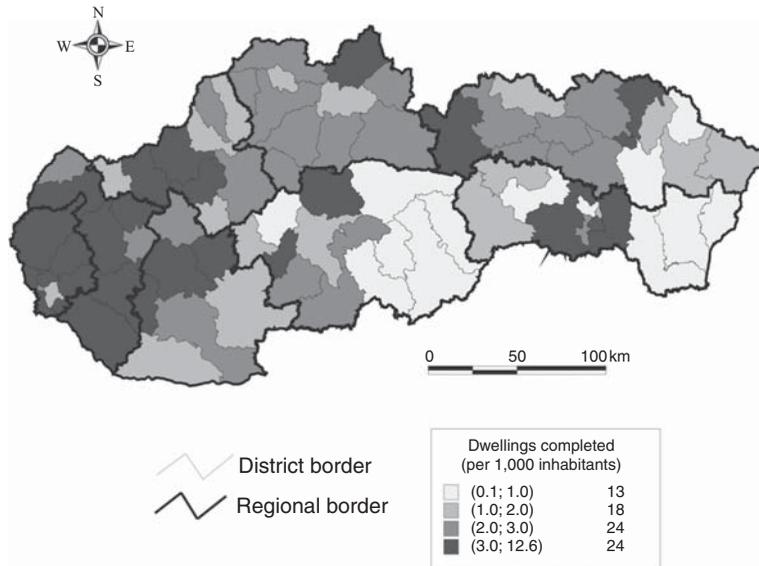


Figure 9.
Dwelling completed per thousand inhabitants of Slovak districts in 2014

Source: Statistical Office of the Slovak Republic (2015)

	2003		2008		2013		2003-2013	
	Score	Rank	Score	Rank	Score	Rank	Average Score	Rank
Bratislava region	0.976	1	1.000	1	1.000	1	0.992	1
Trnava region	0.320	2	0.297	2	0.244	2	0.287	2
Trenčín region	0.241	3	0.219	3	0.158	3	0.206	3
Žilina region	0.196	4	0.201	4	0.141	4	0.179	4
Nitra region	0.124	5	0.161	5	0.133	5	0.140	5
Košice region	0.119	6	0.081	6	0.078	6	0.093	6
Prešov region	0.087	7	0.039	8	0.060	7	0.062	7
Banská Bystrica region	0.067	8	0.046	7	0.053	8	0.055	8

Source: Statistical Office of the Slovak Republic (2015)

years ago was observed. The regional differences in Slovakia, however, even increased in this period, mainly due to the outstanding contribution of dynamic economic growth occurred in the capital region. Impact of the global economic crisis paradoxically caused that disparities between Bratislava and the rest of Slovakia have increased, whilst Banská Bystrica region dropped to the last position again. Trnava region, thanks to its favourable location, is being economically boosted by proximity of the capital city, parts of the industrialised North-Western Slovakia (regions of Trenčín and Žilina) are doing well, too, whereas Nitra region is trying to catch up with them. When omitting metropolis of the east, Košice region is economically underdeveloped, but regions of Banská Bystrica and Prešov are considerably lagging behind the rest of Slovakia in terms of economic performance within the regional structure. Moreover, regional disparities within the country have even grown during decade under study, which is illustrated by the continual increase in relative standard deviation of TOPSIS values referred to the set of the regions under study: 1.05 (2003), 1.15 (2008) and 1.27 (2013).

Table II.
Values extracted by TOPSIS method for the set of indicators of Slovak self-governing regions in 2003-2013

Direction of structural changes in the region

There is strong perception that region suffered by post-socialist transition and has faced unsuccessful restructuring. As a result, regional economy is weaker and we cannot identify any strongly competitive and leading larger sectors. Among factors that influenced slow restructuring and modernisation of regional economy, there is absence of higher amount and more diversified FDI that caused serious difficulties. As a new feature of regional economy, we can observe growing role of small- and medium-sized enterprises and decreasing role of large companies.

If we turn attention to current situation and shifts in structure of regional economy, we can detect:

- stable position of selected large companies in traditional industries (metallurgy, chemistry and construction materials);
- regional economy starts to be more closely linked to well-established Slovak car and car components sector (including small group of larger enterprises);
- regional sectors that faced stronger international competition (e.g. textile, glass production) have fragmented into small/medium businesses active in “niche” market opportunities with more specialised production;
- rising activity in location of logistic and wholesale activities;
- deindustrialisation of Banská Bystrica economy, now predominantly oriented on services and public sector activities (education, health and administration); however, less competitive comparing to Bratislava and Košice in globalised business services; and
- systematically rising attention to tourism in selected parts of regions.

Nevertheless, it should be noted, that this restructuring processes are unequally distributed across the region.

Endogenous growth factors: innovation and entrepreneurship

The regional economy of Banská Bystrica region is in minor scope innovation based. Crucial innovation activities are concentrated into set of large- and medium-sized companies, often with foreign owners. Productivity growth is only in small scope related to innovative capacity of the regional companies without FDI. Their innovative policies concentrate mostly on direct acquiring of new technologies. Part of regional economy operates in less demanding segments of market (e.g. small companies in wood processing). Although there have been innovative startups, they are not forming any substantial trend and part of these businesses are moving later on outside the region.

Research and development capacities in region are small. Poorer innovation capacities also are related to destruction of older institutional base of research and development activities (e.g. serving machinery industry), and to unsuitable profile of existing research and education orientation of regional universities. The awareness of innovation needs and its possibilities are not well established within substantial part of regional businesses. Companies work on similar product and processes base as before. Lack of innovativeness is also related to absence of clear profile of the regional economy. Support of innovativeness and competitiveness is fragmented. Less successful has been attempted to form business innovation and technology centre in region (in Banská Bystrica).

We cannot observe any clear signs of clustering process. From this point of view, region is behind other Slovak region. It is well visible, if we would like to identify naturally formed region, or if we would like to identify any well-shaped cluster-oriented policy. Traditional regional specialisation (e.g. machinery industry, wood industry and food industry) had been

weakened during the transformation process. There are only very minor signs of emerging clustering around aluminium factory in Žiar nad Hronom and surrounding region (automobile industry components, solar systems). There is no special compact policy initiative based on cluster approach, although there were such attempts. It is problem to identify potential specific economic sectors, core companies or other institution.

External factors with the most significant impact on regional development

The external factors of regional development have been less important as it has been expected and needed in region. While EU membership and joining Eurozone has been positively evaluated, less positively had been evaluated use of EU funds, insufficient has been the role of FDI, as well as impact of cross-border cooperation. Central state interventions also should be more extensive and better addressed. The financial and economic crisis had less influence, and more pressing is influence of general public finance consolidation.

Among positive factors we can mention EU membership as well as joining Eurozone. It attracted new investors, improved access to EU markets for many companies. One of the key external factors of the development is for sure access to EU funds. Their role is perceived as very positive, although not without criticism. Very positively are perceived especially measures focussing on improvement of living conditions, school facilities, social assistance, health, housing, transport infrastructure and environmental improvements. With criticism is reflected their insufficient role in needed substantial mobilisation of economic development in region.

Among factors that could influence regional development more we can mention border location and cross-border relations. This influence is not so extensive as in other parts of Slovak-Hungarian region (Western Slovakia), although cross-border economic linkages are growing. The effects are less generous also due to the fact that neighbouring regions are not among the best performing regions of their respective countries (e.g. Nógrad County).

The economic and financial crisis has less significant influence on regional development. The situation in regional economy has not been very good and it worsened only slightly. Nevertheless decline of business activity, reduction of employment and investments have been visible. Serious impact has had subsequent public finance crisis that has limited activities of governments at all levels, including regional self-government and local self-governments in region. National as well as external pressure to consolidate public finance induced at least short-term reduction or stagnation in employment, wages freezing and reduction in public sector investment activities.

The latest development that concerns external factors concerns 2013 regional elections result. Newly elected right wing regional Chairperson (Mr M. Kotleba) more times expressed disillusionment towards EU funds role in regional development. He emphasised need to reduce dependence on EU funds. Banská Bystrica self-governing region already surprised own secondary schools which submitted projects for modernisation of education with an announcement that it would not co-finance their projects. Despite the fact that his electoral victory has more reasons, part of explanations include voters' reflection of long-term slow economic development in the region and insufficient attention to the needs of region within standard political parties and central government.

Majority of powers in social affairs and needed expenditures are under the control of state administration (or covered by separate insurance system). It does not generate any tensions in social cohesion in region. Increased social expenditures that have been needed especially since 2009 are not linked to regional or local budgets. So it is not considered as any burden for region as such.

Due to well-working and stable system of social assistance and social affairs regulation there are no signs of rising social deprivation. Worse is situation in less

developed eastern part of region. Also in this region systematic attention has to be paid to integration of Roma population. However, as it was already mentioned, long-term existing lagging behind other regions led to search for different political elite able to solve regional problems.

In the centre,
but still on the
periphery

External context of development: trade and export

Slovak economy is in principle very open and export oriented. However, in a case of Banská Bystrica region, the export performance of its economy is reduced. During the transformation period significant part of regional production capacities were not competitive on international markets and were transformed into smaller companies or even collapsed.

Leading role in regional export capacity industry has. The region has traditionally only minimal share on total industrial export of the country. The companies who have key role in export are located in districts Žiar nad Hronom, Brezno, Zvolen, Lučenec and Banská Bystrica. The largest exporters are minor set of important larger enterprises in steel (steel tube in Železiarne Podbrezová with about 3,000 employees) and aluminium industry (Slovalco – owned by Hydro Aluminium Norway), automotive (Continental Automotive, Johnson Controls, Cortizo), chemistry (Evonik Fermas), wood processing (Kronospan) and building and raw materials (Knauf, Slovak Magnesite Works). Most of companies are oriented on EU markets, with exception of magnesite producer, which is traditionally oriented in wider scale to Ukraine.

All major exporters are highly competitive and innovative companies. However, in most cases these production units are dependent on research and development capacities located outside the region (in a case of foreign owned companies in abroad). Own research and development base traditionally has one of the largest employer in region – Železiarne Podbrezová. Within the last years there are signs of improvement with expansion of research and development capacities in other companies. Significant had been opening of new development capacities in Continental Automotive in Zvolen (with more than 130 employees, mostly with university education). Innovative and export capacity strengthen cooperation with Slovak universities and Academy of Sciences (e.g. in Slovak Magnesite Works, or by support of “INOVAL” – innovation centre for research in aluminium processing and aluminium products) and supported by EU funds.

Main obstacles hindering development process in the region

It is difficult to identify in this region – either well-developed diversified regional economy, or well-working specialised regional economy advanced in minor set of sectors. It is not clear what can be considered as regional economy strength. Each sector represents smaller number of enterprises that are not enough clustered. We can outline set of obstacles that hinder the development in the region:

- The existence of two diverse parts of the region also means need for different approaches to regional development.
- Poor attractiveness for FDI – less attractive and less prepared to attract. There were too large expectations and waiting for FDI based on experiences of other regions, emphasis on exogenous development and external support.
- Absence of regional innovative capacities in private, as well as in public sector (insufficient research and development sector, including universities).
- Absence of suitable human resources for particular kinds of development and regional economy (training, education), long-term unemployment indicating less suitable workforce.

- Diverse accessibility and slow development of crucial infrastructure in eastern part of region (missing motorways in north and east directions).
- Limited powers and resources of regional self-government, strong influence of partial/local interests.
- Not enough “regionalised” external economic development policies and measures that could efficiently address region’s needs.
- Political and institutional instability – within the region (but at central level too) – influences policy and programming activities and implementation, staff changes, institutional changes and lack of resources.
- Less developed region across border – despite effort for cross-border cooperation their less vital economies limit potential multiplication of development.

Future prospects

Key problem mentioned by respondents was that there is absenting any elaborated and financially backed national regional development policy outside regional policy framework incorporated into EU funds support. Existence of separate national regional development framework should serve as important complementary component. Respondents emphasised need for larger respect to regional differences and specific needs and potential of Banská Bystrica region. Co-ordinated multi-level regional policy framework could bring more effects in regional development.

For future mostly recommended spheres of national development policy are to concentrate support into specific measures in fields of:

- tourism;
- secondary education, including its accessibility;
- technical/sciences education and research at universities;
- support of traditional regional economy – wood processing, food production and natural resources exploitation (e.g. serving construction industry); and
- support of development and business-oriented institutional environment in peripheral regions and smaller cities.

Unfortunately, external factors did not achieve sufficient scale to influence regional development substantially. It is the case of FDI, EU and national-level support, or cross-border development effects that did not lead to breaking scale of development effect. Endogenous and structural factors also are under dispute. Among them existing traditional structure and long-time operating enterprises are playing important role, but wider scale restructuring did not happen. Natural resources are not sufficiently exploited, although they provide certain kind of future possibilities (forests, construction materials and other raw materials). Important limit for more vital development is absence of availability of suitable human resources, at least in part of the region. There are also important infrastructure deficiencies that limit development prospect of the region.

We cannot forget on socio-political aspects. Longer term perception of region as stagnant led to set of political decisions in favour of this region or its parts. Already since 1990s there were at least interim attempts to build “third centre” of Slovakia in Banská Bystrica and its surrounding (first two centres are Bratislava and Košice). They were especially (re)location decisions concerning institutions under influence of state, or intervention into administrative division of the country. Although not all of them remained in Banská Bystrica, it was important support of it restructuring as service-based

centre. Nevertheless, such intervention cannot substantially influence development dynamics in the region.

The productivity growth is only partly related to innovative capacity of the region. Regional economy is predominantly dependent on external sources of innovation. An innovative production linked to increased productivity is mostly concentrated into large companies and companies with FDI. Within other parts of regional economy, more influential seems internal elementary technology and organisational innovations. There are very limited sources of innovations within the region that are outside business sector.

In the centre,
but still on the
periphery

5. Conclusions

Despite long-term less positive economic growth, the level of social disparities did not change in any wider scale in the region under study. The most important role has strongly mitigating effect of centrally regulated social system. In similar way, all important public services are under central state supervision and acceptable funded, so the standard of service provision is similar to other regions. We can observe significant effort to reduce social disparities and provide more efficient and accessible services. As a result, thanks to this centrally regulated and supervised system, particular portion of better economic development outcomes generated in other Slovak regions are redistributed to this region, with equalising effect on social disparities.

Regional economy is facing long-term sectoral and size restructuring with less positive outcomes. Region is currently missing clear specialisation and important leading sectors that could generate positive spillovers are absenting. More important is employment in public sector and services, including the centre of region – Banská Bystrica; however, regional economy starts to be more closely linked to strong Slovak car and car components sector. Traditional positions still hold bigger enterprises in traditional sectors, but their role is decreasing, since some traditional regional sectors that faced strong international competition (textile and glass production) fragmented into small businesses searching for “niche” market opportunities with more specialised production. Low technological complexity of production is very often the problem of the lagging regions. Their economy consists primarily of a large number of small- and medium-sized enterprises with limited innovation capacity, with a shortage of capital for further technological development (Dankbaar, 1993; Metcalfe, 1995). Such firms are dependent on knowledge transfer and use of innovative services of other companies, which increases the costs of their further development. Nevertheless, the lack of such services may generate development of companies involved, for example, in the IT consulting business. This concept works not only at the level of enterprises, but the whole spatial units which they are coherent part of. Pyke *et al.* (1992) stressed that the innovative capacity of the regions can maintain jobs in sectors which are prone to relatively frequent territorial movement inspired mainly by cheap labour. Strategies aimed at developing the new production methods, encouraging internal reserves and development potential and strengthening competitiveness are crucial, very often dependent on impulse coming from the local and regional environment. However, role of (regional) government is evaluated quite differently in this matter. Some consider its regulatory powers as necessary (e.g. Hoff, 2000; Bowles *et al.*, 2006; Glávan, 2008), while the others as distorting the natural market environment (e.g. Hoff and Stiglitz, 2000; Dang and Pheng, 2014).

In Banská Bystrica region, larger attention and investments went into tourism combining natural beauties, mountaineering, skiing, historical heritage and agro-tourism. Situation in agriculture is stabilised, with renewed attempts to establish new production facilities. Following historical heritage of region we can expect repeated attempts to renew effort to more extensive use of natural resources in the region (magnesite, silicates and decorative stones). As potential source of local economy strengthening we can consider wood processing and furniture as well, although until now weaker in finalisation production.

Main opportunities that can positively influence regional development include better integration of development strategies and cooperation of development among cities in key area of the region covering cities Banská Bystrica and Zvolen (and spa cities Sliač and Kováčová), extensive renewal of historical social and economic linkages to nearby Hungarian regions and to Budapest, expansion of cross-border cooperation in business and employment, better exploitation of location in centre of the country, with potential for combined use various modes of transport (road, railway and airport) for new businesses and logistics, revitalisation and modernisation of old production tradition of the region in new market framework, e.g. in wood processing and food processing, good potential for the tourism development in manifold combination (mountain, ski, spa, historical heritage, urban and cycling), including second homes and better use of available natural resources (e.g. forest, building materials).

On the opposite, there are threats that can influence the development of the region in future as unclear specialisation of regional economy dependency of public sector interventions and public sector employment, absence of urban centres that could serve as development cores in peripheral part of the region, less positive population development combining ageing of the population and out-migration of young and trained population to other parts of the country and abroad, especially from southern part of the region strong influence of political cycle generating various discontinuities in policy formation and implementation as well as slow and less elaborated integration of Roma population.

In the development of the given territorial system, task of regional actors and the extent of their involvement are very important. They are epitome of the “bottom-up” development strategy as well as information channels required for the proper adjustment of the national development programmes that respect the specific needs of different regions in the preparation and implementation of development strategies. Both possibility of direct cooperation and knowledge of the environment in which development plan is implemented constitute the main advantages of the involvement concerning regional stakeholders in this process.

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