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**Edited by:**

Viktorie KLÍMOVÁ

Vladimír ŽÍTEK

*(Masarykova univerzita / Masaryk University, Czech Republic)*

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# STATE-OF-THE-ART ON CURRENT METHODS AND PRACTICES FOR EVALUATION THE POTENTIAL OF REGIONAL DEVELOPMENT

## Aktuální metody a postupy pro hodnocení potenciálu regionálního rozvoje

LUKÁŠ MELECKÝ

*Katedra evropské integrace*    *Department of European Integration*  
*Ekonomická fakulta*    *Faculty of Economics*  
Vysoká škola báňská - Technická univerzita Ostrava    VŠB - Technical University of Ostrava  
✉ Sokolská třída 33, 702 00 Ostrava, Czech Republic  
E-mail: lukas.melecky@vsb.cz

### Annotation

The question of how to measure development has attracted the attention of economists and other social scientists as well as non-government organizations and policy-makers for many decades. Nowadays, the problem of determining the internal reserves of socio-economic development of region becomes more important, the solution of which requires development of new approaches to the definition of essence, structure, methods for assessing the socio-economic potential. Regional development policies based on local potential triggers a shift in the economic structure of territories. Developments are conducted in the form of planned changes in various aspects of social life by exploiting all the potential of human resources, natural resources, and institutions available in the area. This process has however proven difficult as contemporary views on measurement of regional development are presented as multi-dimensional concepts. Measurement of territorial progress with regards to achieving the developmental potential plays a crucial role in improving the prosperity and quality of life in any territories. Several methods of evaluating the level of development exist, most of methods have their own limitations. The aim of the paper is to review the existing and relevant approaches to evaluate the potential of regional development based on comprehensive analysis of scientific literature.

### Key words

database, European Union, indicator, method, potential of regional development, territory

### Anotace

Otázka měření rozvoje přitahuje pozornost ekonomů a dalších vědců v oblasti společenských věd i nevládních organizací a politiků po mnoho desetiletí. Problematika identifikace potenciálu socioekonomického rozvoje regionu je dnes důležitější mnohem více než dříve, což vyžaduje rozvoj nových přístupů k definici podstaty, struktury a metod posuzování sociálně-ekonomického potenciálu. Politiky regionálního rozvoje založené na místním potenciálu vyvolávají posun v ekonomické struktuře daných území. Rozvoj probíhá ve formě plánovaných změn v různých aspektech společenského života tím, že se v této oblasti využívá veškerého potenciálu lidských zdrojů, přírodních zdrojů a institucí. Tento proces se však ukázal jako obtížný, neboť současné pohledy na měření regionálního rozvoje jsou prezentovány jako vícerozměrné koncepty. Měření územního pokroku s ohledem na dosažení rozvojového potenciálu hraje zásadní roli při zlepšování prosperity a kvality života všech území. Existuje několik metod hodnocení úrovně rozvoje, většina metod má však svá vlastní omezení. Cílem článku je tudíž analyzovat stávající a relevantní přístupy k hodnocení potenciálu regionálního rozvoje na základě komplexní analýzy vědecké literatury.

### Klíčová slova

databáze, Evropská unie, indikátor, metoda, potenciál regionálního rozvoje, území

**JEL classification:** B41, C82, O10, O18, R11, R12, R58

## 1. Introduction

Improving the standard of living and quality of life for societies has undoubtedly become one of the most important objectives across the world. The achievement of this developmental objective is a complex and difficult issue. Greater emphasis has thus been directed towards the collective improvement of social, cultural and economic aspects of areas (Pike, Rodríguez-Pose, Tomaney, 2007). Economic development in this regard has been viewed as an important process which asserts an enhancement of both qualitative and quantitative features in regions contributing to higher levels of prosperity. However, as a multidimensional process, the measurement of the progress which societies have made in their developmental efforts, has proven to be difficult (Stiglitz, Sen, Fitoussi, 2009).

As reviewed Poledníková (2017), generally, the term development can be defined as the process of positive quantitative or qualitative changes. The development also has a number of dimensions from multinational, through regional to a local level (Ďurková, Čábyová, Vicenová, 2012). Regional development is a complex of processes taking place within the regions that affect economic, social, environmental and other changes of a region. Regional development involves economic as well as social and ecological development providing good conditions for increasing regional cohesion and competitiveness. Regional economic and social development may be described from various perspectives using different criteria, often oriented in different directions. With respect to the multidimensionality of development concept, there are a number of economic, social or environmental factors and indicators that can be used to assess territorial development potential and performance. Although the phenomenon of development has been discussed by many researchers, academics, authorities and institutions for decades, there is no uniform theoretical approaches and consensus on the measurement and assessment. Evaluation of the level of development, its potential and main determining factors are the most important conditions for developing the economic and regional development policy in effective and effectiveness way. Therefore the main purpose of the paper is to identify the specific aspects influencing the potential of regional development. The main aim of the paper is to analyse the existing quantitative approaches to measuring the potential of regional development based on comprehensive analysis of scientific literature.

## 2. Literature review and definition: dimensions of the concept

In broad interpretation the term potential can be considered as a source of opportunities, resources, stock, which can be activated, used to solve a problem or achieve a certain goal; capabilities of the individual, society and state in a particular field (Cheymetova, Nazmutdinova, 2015). Baksha, Gamukin and Svintsova (2001) understand the concept of potential as a system of material and labour factors (conditions), ensuring the achievement of the purposes of production, and an opportunity through the use of resources to solve complex tasks entrusted to it. Svobodin (1991) considers potential as a set of co-operating resources with the ability to produce a certain amount of production. There are various factors influencing the level of development and number of indicators that can be used for the assessing of development potential, growth and performance of given territory. Regions differ mainly in the economic level, based on Ďurková, Čábyová and Vicenová (2012), this level is affected by the following factors: localization of enterprises in the region, their frequency, branch structure, economic stability, the intensity of intra-regional economic relations, types of organizational forms; quantitative and qualitative characteristics of the population and its movement; technical and social infrastructure in terms of complexity, quality and quantity; the available natural resources and their utilization rate; and direct and indirect impacts of the state economic policy. Viturka (2014) evaluates development potential of regions in an integrative way, from factual (integration of economic, social and environmental factors) as well as spatial (integration of territorial structures) perspectives. Based on Boryczko (2007) to achieve successful regional development three components are necessary, i.e. genius loci or spirit of the place (economic and academic traditions, natural conditions, business climate, liability, physical attractiveness, human capital, competition with other regions); tangible assets established by people in terms of technical, educational, social infrastructure and economic base (educational institutions, transportation, telecommunication, R&D framework, technical infrastructure, economic structure); regional strategy and all efforts enhance the development (relationships between academic and business circles, cohesive strategy of regional development, grassroots initiatives, partnerships among public, private and non-profit players). Capron (2002) deals with the importance of capital for regional development and differs natural, productive, creative, human and social capital. Cheymetova and Nazmutdinova (2015) describe the structure of the socio-economic potential by four basic approaches, while three approaches have common elements as labour and natural resources, population, production or infrastructure. The fourth approach reflects the best the possibility for a comprehensive assessment of the socio-economic potential of the area and highlights the availability of resources, their use and also reflected the willingness of the region to economic reform and development.

The regional resource potential can be divided into three related blocks: environmental, social and economic potentials. Most of the authors thus point out that the regional development should be the view from different

perspectives taking into consideration not only economic conditions but also social or environmental as well as exogenous and endogenous factors (characterized by quantitative and qualitative indicators). Some common factors/indicators describing the development potential and growth of the European territory can be identified: research and development, innovation, entrepreneurship, human capital, creative potential, learning networks, infrastructure (financial, social, economic, technical), regional specialisations, geographical proximity, etc. Generally, regional development and solution of regional problems is determined by exogenous and endogenous factors that influence the potential of local development as endowment, resources, human and social capital, accessibility, infrastructure etc. (e.g. entrepreneurial skills, local production, technological progress, the diversity of industry, the regional specialization, quality of local actors/institutions, innovation, knowledge, creative potential of population, learning networks, physical proximity, agglomeration advantages), see e.g. Antonescu (2015), Capello and Perucca (2015), Raszkowski and Głuszczyk (2015), Jóna (2015), etc.

For example Antonescu (2015) stated, the endogenous potential factors at the regional level can be grouped into four important categories: 1. The endogenous factors specific to the East EU regions. The location on the border of the EU-15 and the presence of capital cities has been interpreted as support of the regional differentiated growth. The location next to the EU-15 has generated a higher market potential, while the presence of the capital-cities has represented the main economic and social assets, necessary for the growth pattern in these regions. 2. An important role is played by knowledge and innovation. 3. Group of factors referring to the presence of the physical infrastructure and accessibility are interpreted as pre-conditions for obtaining the knowledge and information. The accumulation of knowledge is strongly rooted and anchored in the characteristics of the economic, social, cultural and institutional process, thus some areas have a more an innovative character pronounced than others. 4. The fourth group of factors consists of the presence of certain sectorial components which explain regional growth. Changing the sectorial structures may represent an important explanatory element, in particular, for new regions of the EU.

According to ESPON (2006), the base for regional development in the EU is natural capital, productive capital, creative capital, human capital, social capital. Coe, Hess, Wai-chung Yeung, Dicken and Henderson (2004) say that endogenous factors are necessary, but insufficient, to generate regional growth in an era in which competition is increasingly global. Economies of scale and scope embedded within specific regions are only advantageous to those regions – and bring about regional development – insofar as such region-specific economies can complement the strategic needs of trans-local actors situated within global production networks. Regional development thus depends on such a coupling process that evolves over time in relation to the rapidly changing strategic needs of global production networks and the rather slow transformations in regional economies of scale and scope. Regional development at any particular historical moment requires the necessary co-presence of three interrelated sets of conditions: the existence of economies of scale and scope within specific regions; the possibility of localization economies within global production networks; and the appropriate configurations of ‘regional’ institutions to ‘hold down’ global production networks and unleash regional potential.

The importance of endogenous factors is also emphasized by other authors. Keune (2011) discusses four major areas that are intimately interrelated and overlapping and are found to be of major importance in promoting regional development: technology transfer, innovation and information; training, retraining and employment creation; support to particular groups of enterprises, promoting inter-firm cooperation in horizontal networks, vertical networks and/or sectoral clusters; promotion of inward investment. Șorcaru (2014) stressed that human potential, by labour force, employment, unemployment, educational level, gender structure, aging, reflects the level of economic development of a region is strongly influenced by demographic realities (total population, age structure, sex, residence, etc.) and economic realities (number of jobs). Muštra and Škrabi (2014) point out that institutions are an important force in the regional growth process. GDP, quality of governance (voice and accountability, political stability and absence of violence/terrorism, government effectiveness, regulatory quality, rule of law, and control of corruption institutions are an important force in the regional growth process. Interdependence between social and institutional proximity indicates the necessity of combining different institutional factors for harmonious regional development.

Also, as in the case of development potential, there are many factors that determine the dynamics of regional growth and disparities and they differ according to the particular countries. Jóna (2015) stated that numerous similarities exist between the patterns of economic growth and territorial capital growth. Regional economic growth and development are also directly and significantly determined by the endogenous and exogenous assets; both have to be analysed together, this is the main reason why the concept of territorial capital is applied. According to Raszkowski and Głuszczyk (2015), the dynamics of regional development depends on the efficiency of socio-economic processes implementation and the resources available in a region, resulting in its sustainable development; the importance of efficiency of territories also analysed Staníčková (2017a). Regional creativity

issues are gaining importance among people and organizations responsible either directly or indirectly for the processes enhancing regional development dynamics. Kondratiuk-Nierodzińska (2016) points out that economic growth is a process of long-term transformation shaped by the complex interactions between technology, economy, institutions and social factors. Technological advancement may be one of the most important determinants of economic growth and development creation of new knowledge is usually placed at the heart of innovation systems and considered one of the most important capabilities determining economic development. From the innovation capabilities, concept author determines the relationship between knowledge creation capabilities and economic development in Polish regions. The main assumption is that differences in knowledge creation capabilities of Polish regions have a good explanatory value of regional variations in GDP per capita. Also, Makkonen and Inkinen (2013) see the innovative capacity educational attainment (the availability of human capital) as the key drivers of economic growth.

American researchers Stephens, Partridge and Faggian (2013) stated most growth theories are based on the notion that the “human factor” is the real engine of growth. Factors such as self-employment, human capital, creativity, university spillovers and high-technology clusters are considered. Policymakers need to consider the costs of any economic development approaches, but that supporting entrepreneurship and small business development appear to be promising. Australians Beer and Kearins (2004) stated that strategies and actions focussed on assisting the growth of individual regions to have the potential to make a significant contribution to national economic performance. However, the value of such approaches is not universally recognized. Regional Australia Standing Council (2013) confirmed the key determinants of long-term regional economic growth are human capital, particularly education and skills (Improvements in human capital can enhance the innovative and productive capacity of a workforce); sustainable (economically, environmentally and socially) communities and population change (population is one of the most important resources of a region).

### 3. Measuring of development potential

An approach based on Baksha et al. (2001) reflects the best the possibility for a comprehensive assessment of the potential of regional development. This approach highlights all the necessary conditions: the availability of resources, their use and also reflected the willingness of the region to economic reform and development. The first part continues natural resources, economic and geographic and demographic, as they fully reflect the resource base of the region – the availability of natural resources, their reserves, the climatic zone of the territory; reproduction and population of the region; the existence of transport infrastructure and the density of economic activity. The second part consists of the labour potential, which reflects the region's enterprises providing human resources and their effective use; production potential – the existence and development of the power industry, production of their products; social and infrastructural potential determines the conditions and quality of life of the population, i.e. the development of vital infrastructure. Budgetary potential, showing the change only the revenue and expenditure of the regional budget, is supplemented by financial content. The third part carrying out the processes for development of territory is not possible without the willingness of the population of this region, so this unit is turned on intellectual and volitional capacity, reflecting the level of professional development of the population, its ability for the sustainable choice of objectives and activities to implement them. Structuring of the potential of regional development is based for a comprehensive evaluation of the effectiveness of its use and development, which is essential in the generation options and the rationale of strategic choice of territorial development, the formation of economically justified both state and regional policy, for more information see Tab. 1.

Suitable databases for selection the relevant indicators, with respect to specified dimensions and territorial interest of analysis (i.e. the EU NUTS 2 regions), are the EU statistics – Cohesion Policy reports and ESPON applied research projects in categories Attractiveness (ATTREG), Economic crisis (ECR2), EU Directives (ARTS), EU 2020 Strategy (SIESTA), Globalisation (TIGER), Governance (TANGO), Growth Poles (SGPTD), Specific types of territories (GEOSPECS), Territorial Cooperation (TERCO), Territorial impact assessment (TIPTAP), Neighbour Regions (ITAN), Scenarios (ET2050); and these will be subjected to further analysis (Melecký, 2017b). In relation to the potential of regional development and synthesis of selected indicators, Žítek and Klímová (2013) aimed to compare the economic performance of north-eastern Baltic Sea regions on the NUTS 2 level in the EU Member States, and focused on evaluating the present position of the regions in relation to the dynamics of their development. There are several indicators of regional development potential that are processed by different theoretical or empirical scientific methods and specific quantitative methods of research. Following Tab. 2 reviews the predominated approaches to regional development potential and growth.

**Tab. 1: Structuring the dimensions for evaluating the potential of regional development**

Potential of regional development		
Part of resource potentials, opportunities for economic development of the region	Part of potentials, ensuring economic development of the region	Part of potentials of the readiness to the economic development of the region
Natural resources	Labour aspects	Socio-economic readiness aspects
Economic and geographical aspects	Industrial aspects	Regulatory readiness aspects
Demographic aspects	Social and infrastructural aspects	Scientific and methodical readiness aspects
	Market infrastructure aspects	Intellectual and volitional aspects
	Investment aspects	
	Budget and Finance aspects	

Source: own elaboration based on Baksha et al. (2001); processed by Melecký (2017b)

Tab. 2: Review of main approaches to regional development potential evaluation

Author/Journal (Year)	Title of paper	Territory	Factors/Indicators	Method
Berea, R. C., Otoiub, A., Bucerzan, I., Procedia Economics and Finance (2014)	Determinants of Economic Growth in Cities Acting as Growth Poles in Regions from Romania	cities (growth poles)	university students, unemployment, R&D expenditure, population, migration	Panel data models – econometric modelling
Boryczko, A., SPNA Review (2007)	Economic Development Potential Of The Krakow Region	region	high technology, the spirit of the place, tangible assets, regional strategy	Description – statistical treatment
Crescenzi, R., Rodríguez-Pose, A., Papers in Regional Science (2012)	Infrastructure and regional growth in the European Union	regions	infrastructure, R&D investment, GDP per capita, structural characteristics	Two-way fixed-effect (static), GMM-diff (dynamic) panel data regression estimation methods
Cheyetova, V.A., Nazmutdinova, E.V., Asian Social Science (2015)	Socio-Economic Potential of the Region and Its Evaluation	regions	local potential, labour potential, potential socio-economic readiness	Systematic and comparative analysis; expert assessments; principal component analysis; econometric modelling
Čingule, S., Economic Science for Rural Development (2009)	Regional Development and Economic Potential of the Counties of Latvia	states, municipalities	infrastructure, entrepreneurship, innovation, intellectual capacity	Description – statistical treatment
Dańska-Borsiak, B., Laskowska, I., Comparative Economic Research (2014)	Development: An Analysis Of Spatial Relationships	NUTS 3 regions	GDP per capita, human and social capital	Global spatial autocorrelation tested using the Global Moran's I statistic; for local autocorrelation calculated LISA statistics.
Đurková, K., Čábyová, E., Vicenová, E., Review of Applied Socio- Economic Research (2012)	Regional Development in Economic Core Regions	economic core regions, metropolitan, peripheral and rural regions	localization of enterprises, population, technical and social infrastructure, the available natural resources, impacts of the state economic policy	Description – statistical treatment
Ezcurra, R., Gil, C., Pascual, P., Applied Economics (2005)	Regional Welfare Disparities: the case of the European Union	NUTS 1 regions	national component, the spatial location, the productive structure, R&D expenditure	Non-parametric approach; welfare index
Kalnina-Lukasevica, Z., Shape and be Shaped: The Future Dynamics of Regional Development (2003)	Development of Regions in Latvia - Growth Factors, Policy Alternatives, Synthesized Development Model	NUTS 3 regions	innovations, knowledge, human capital, learning, export, infrastructure geographical location, distance from the centre of economic activities, etc.	Synthesized Model of regional economic development
Milek, D., Nowak, P., Equilibrium. Quarterly Journal of Economics and Economic Policy (2015)	Regional Specialisation as an Endogenous Factor in the Development of Poland's Provinces	NUTS 2 regions	employees, gross value added	Krugman dissimilarity index
Smętkowski, M., Wójcik, P., Regional and Local Studies (2010)	Regional Development in Central and Eastern Europe.	NUTS 3 regions	economic structure, labour productivity, labour market situation, the condition of enterprises, R&D sector, human capital, infrastructure and external attractiveness	Beta and sigma convergence analysis, for kernel density estimation, transition matrices, spatial autocorrelation and multi-dimensional comparisons
Rivera, P.P., Journal of Economic Issue (2012)	Crisis and Regional Distribution in the European Union: Considerations of Economic Policy	NUTS 2 regions	population, work activity, unemployment rate, activity rate, production, income	Analysis of the variation in the level of spatial concentration of production and per capita income; index of regional potential
Viturka, M., Ekonomie E+M (2014).	Integrative Model for Evaluation of Development Potential of Regions and its Application on an example of the Czech Republic.	NUTS 3 regions	economic, social and environmental factors, spatial perspectives	Main components of the model are business environment quality (BEQ), innovation potential of companies (IPC) and use of human resources (UHR)

Source: own elaboration based on reviewed references, 2018

In addition to the approaches listed in Tab. 2, very frequently used approach to the measurement and evaluation of the socioeconomic development represents composite indices (CIs). CIs construction related to the issue of development summarizes e.g. Santos and Santos (2014). Meyer, Jongh and Meyer (2016) constructed a composite regional development index that successfully measures all the dimensions of development in a quantitative manner. Index assess regions on a national, regional and local level and consisted of four dimensions (demographic, social, labour and economic). Glebova and Kotenkova (2014) suggested a system of the regional innovation potential indices. They calculated the integrated indices of innovation-driven development of three regions in the Volga federal district in Russia over 2005-2010 years. Morrison (2014) identifies the operational elements of effective regional governance in USA and Australia, based on the premise that measuring and monitoring the potential for regional governance enables an assessment of the capacity of regional institutions to cope with the diversity of problems that may arise. He proposed a regional governance index and used four indicators of regional governance enabling measurement of (1) engagement in regional networks; (2) diversity and synergies across the instrument mix; (3) robustness and adaptability in instrument design; and (4) broker fiscal, administrative and democratic support. Wang (2007) created the regional development index for China which consists of ten field indices (and one reference index) to measure regional development in different fields (level of economic development; productivity and R&D; human development; education; social equity; public services; social security). Each of the ten field indices directly presents a certain field of development, and together they constitute the overall index. Each field index consists of a few sub-indices, which are based on one or more basic indicators. In total, seventy basic indicators are used. The eleventh field index presents the natural endowments of a province, which act as conditions for development, not as achievements of development. Also, in the EU there are some examples of CIs that contributes to regional development potential evaluation in a different way, as summarizes Melecký (2017a) or Staničková (2017b). The EU stated that based on the available data from Eurostat, the EU, therefore, proposes to develop a territorial performance (in all the aspects) indicators/indices, which can provide additional insight into the future potential of territorial (especially local and regional) authorities in meeting the EU targets. The available data could be clustered around the key indicators. The performance indicators would show for each territory (especially EU NUTS 2 region), whether it has improved, stagnated or declined in relation to the EU targets. These indicators could also be used to benchmark territories in the EU and to detect successful strategies in promoting growth and competitiveness in Europe (European Commission, 2016).

There are also CIs which do not represent an official EU approach (approach of an international institution or country), however these CIs evaluate the territories in selected topic, e.g. Social Progress Index (Porter, Stern, Green, 2016), Resilience Index Measurement and Analysis model (United Nations, 2016) or OECD approaches to quality of life and well-being in the form of CIs evaluation (OECD, 2016, 2015), and many others.

Related to the topic of development and its link with CIs, in the EU there are some examples of CIs that contributes to regional development potential evaluation in a different way. Grunfelder, Rispling and Norlen, (2016) counted the Regional Potential Index for Nordic countries (Denmark, Finland, Iceland, Norway, Sweden, and the Faroe Islands, Greenland, Ålan) and included criteria as regional potential, demographic potential, labour market potential, economic potential. The ranking does not take into account any qualitative dimensions, such as experienced life quality. The same approach is also used by Rispling et al. (2016) to analyse trends and potentials in the Baltic Sea Region. Silva and Ferreira-Lopes (2013) created a Regional Development Index for Portugal NUTS 3 regions based on the methodology of the human development index from the United Nations Development Programme. As with the original HDI, the income index is calculated based on the natural logarithm of the minimum and maximum values. Perišić and Wagner (2015) constructed the development index for Croatian regions which is a composite indicator calculated as a weighted average of five socio-economic indicators. The development level assessment and categorization of Croatian local and regional units is based on the value of the development index which is the main instrument of Croatian regional policy.

## Conclusion

Regional development is a complex of processes taking place within the regions that affect economic, social, environmental and other changes of a region. Regional development involves economic as well as social and ecological development providing good conditions for increasing regional cohesion and competitiveness. With the regional development is related the term potential that can be considered in general as a source of opportunities, resources, stock, which can be activated. The aggregate potential of the territory must be considered, first of all, the socio-economic, including not only the economic potential of the region but also the social dimension, which characterises the relationship between the people on the creation, development and effective use of resources in the region. Therefore, nowadays the problem of determining the internal reserves of regional development becomes more important, the solution of which requires the development of new approaches to the definition of



essence, structure, methods for assessing the potential of regional development. To detect the potential and challenges of a region, it is important to analyse its global and future challenges and potential. A territorial focus on the external trends and processes of globalisation and regionalization entails detecting current and future trends affecting the region, such as environmental changes, shifting demographic structures and technological developments. It also requires a focus on the potential and challenges of cultural and economic globalisation processes and the ways in which politics and policies on a variety of scales are imposed on a region. In the paper, approach to consider the potential of regional development is based on a set of resources area and properties that define how the sustainable and effective functioning of the socio-economic system under varying environmental conditions. The paper confirms the urgency of measuring the potential of regional development. The paper offers a suitable starting point for further analyses of specialisation, diversity and determinants of regional dynamics.

## Literature

- [1] ANTONESCU, D., (2015). Theoretical approaches of endogenous regional development. *MPRA Paper No. 64679* [online]. [cit. 2018-03-15]. Available at: <https://mpra.ub.uni-muenchen.de/64679/>
- [2] BAKSHA, N. V., GAMUKIN, V. V., SVINTSOVA, A. P., (2001). *Aspects of the budget: the imperative, economic, financial, tax, consumables and social*. Moscow: IPO Profizdat.
- [3] BAKSHA, N. V., GAMUKIN, V. V., SVINTSOVA, A. P., (2001). *Aspects of the budget: the imperative, economic, financial, tax, consumables and social*. Moscow: IPO Profizdat.
- [4] BEER, A., KEARINS, B., (2004). Regional Dimensions in National Development: Understanding the Role of Regionally Focussed Economic Development in Achieving National Growth. *Inaugural National Regional Research Colloquium*.
- [5] BORYCZKO, A., (2007). Economic Development Potential Of The Krakow Region. *SPNA Review*, vol. 3, no. 1, pp. 1-16.
- [6] CAPELLO, R., PERUCCA, G., (2015). Openness to Globalization and Regional Growth Patterns in CEE Countries: From the EU Accession to the Economic Crisis. *Journal of Common Market Studies*, vol. 53, no. 2, pp. 218-236. ISSN 1468-5965.
- [7] CAPRON, H., (2002). Le développement régional: contingences historiques et nouveaux facteurs dynamisants. *Brussels Economic Review*, vol. 45, no. 4, pp. 5-22. ISSN 0008-0195.
- [8] CHEYMETOVA, V. A., NAZMUTDINOVA, E. V., (2015). Socio-Economic Potential of the Region and Its Evaluation. *Asian Social Science*, vol. 11, no. 7, pp. 74-81. ISSN 1911-2017.
- [9] COE, N.M., HESS, M., WAI-CHUNG Y., H, DICKEN, P., HENDERSON, J., (2004). Globalizing' regional development: a global production networks perspective. *Transactions of the Institute of British Geographers*, vol. 29, no. 4, pp.468-484. ISSN 0020-2754.
- [10] ĎURKOVÁ, K., ČÁBYOVÁ, L., VICENOVÁ, E., (2012). Regional development in economic core regions. *Review of Applied Socio- Economic Research*, vol. 4, no. 2, pp. 87-92. ISSN 2247-6172.
- [11] ESPON, (2006). *Territory matters for competitiveness and cohesion. Facets of regional diversity and potentials in Europe*. Luxembourg: ESPON Synthesis Report III. ISBN 2-9599669-4-5.
- [12] EUROPEAN COMMISSION, (2016). *Composite Indicators Research Group* [online]. [cit. 2018-03-20]. Available at: <https://composite-indicators.jrc.ec.europa.eu/>.
- [13] GLEBOVA, I., KOTENKOVA, S. (2014). Evaluation of Regional Innovation Potential in Russia. *Procedia Economics and Finance*, vol. 14, pp. 230-235. ISSN 2212-5671
- [14] GRUNFELDER, J., RISPLING, L., NORLÉN, G., (2016). *State of the Nordic Region 2016*. Stockholm: Nordregio. ISBN 978-91-87295-36-2.
- [15] JÓNA, G., (2015). New trajectories of the Hungarian regional development: balanced and rush growth of territorial capital. *Regional Statistics*, vol. 5, no. 1, pp. 121-136. ISSN 2063-9538.
- [16] KEUNE, M., (2001). Regions, Regional Institutions and Regional Development. *Seed working paper no 16 – Series on Globalization, Area-based Enterprise Development and Employment*. ISBN 92-2-112549-1.
- [17] KONDRATIUK-NIERODZIŃSKA, M., (2016). New Knowledge Generation Capabilities and Economic Performance of Polish Regions. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, vol., 11, no. 3, pp. 451-471. ISSN 1689-765X.
- [18] MAKKONEN, T., INKINEN, T., (2013). Innovative Capacity, Educational Attainment and Economic Development in the European Union: Causal Relations and Geographical Variations. *European Planning Studies*, vol. 21, no. 12, pp. 1958–1976. ISSN 0965-4313.
- [19] MELECKÝ, L., (2017a). Meta-analyses of composite indices in the evaluation of European Union territory. In *XX. mezinárodní kolokvium o regionálních vědách. Sborník příspěvků*. Brno: Masarykova univerzita, pp. 43-51. ISBN 978-80-210-8587-9. DOI: 10.5817/CZ.MUNI.P210-8587-2017-4.

- [20] MELECKÝ, L., (2017b). Review of Relevant Approaches for Evaluation of Development Potential: Use for the EU Regions. In *Proceedings of the 13th International Conference. Liberec Economic Forum 2017*. Liberec: Technical University of Liberec, pp. 78-86. ISBN 978-80-7494-349-2.
- [21] MORRISON, T.H., (2014). Developing a regional governance index: The institutional potential of rural regions. *Journal of Rural Studies*, vol. 35 pp. 101-111. ISSN 0743-0167.
- [22] MUŠTRA, V., ŠKRABI, B., (2014). Institutions and Regional Inequalities. *RURDS*, vol. 26, no. 1, pp. 20-39.
- [23] OECD, (2015). *How's Life? 2015: Measuring Well-being*. Paris: OECD Publishing. ISBN 978-92-64-21101-8.
- [24] OECD, (2016). *OECD Regional Well-being: A User's Guide* [online]. [cit. 2018-03-15]. Available at: <https://www.oecdregionalwellbeing.org/>.
- [25] PERIŠIĆ, A., WAGNER, V., (2015). Development index: analysis of the basic instrument of Croatian regional policy. *Financial theory and practice*, vol. 39, no. 2, pp. 205-236. ISSN 1845-9757.
- [26] PIKE, A., RODRÍGUEZ-POSE, A., TOMANEY, J., (2007). What kind of local and regional development and for whom? *Regional Studies*, vol. 41, no. 9, pp. 1253-1269. ISSN 0034-3404.
- [27] POLEDNÍKOVÁ, E., (2017). Development potential of the European territory: A literature review. In *XX. mezinárodní kolokvium o regionálních vědách. Sborník příspěvků*. Brno: Masarykova univerzita, pp. 27-35. ISBN 978-80-210-8587-9. DOI: 10.5817/CZ.MUNI.P210-8587-2017-2.
- [28] PORTER, M.E., STERN, S., GREEN, M., (2016). *Social Progress Index 2016. The Main Scientific Report*. [online]. [cit. 2018-03-15]. Available at: <http://www.socialprogressimperative.org/wp-content/uploads/2016/06/SPI-2016-Main-Report.pdf>.
- [29] RASZKOWSKI, A., GŁUSZCZUK, D., (2015). Regional creativity factors. Towards new dimensions of regional development. In *Proceedings of The 9th International Days of Statistics and Economics*. pp. 1375-1385. ISBN 978-80-87990-06-3.
- [30] REGIONAL AUSTRALIA STANDING COUNCIL, (2013). *Framework for Regional Economic Development*. Canberra: Australian Government. ISBN 978-1-922060-28-60.
- [31] RISPLING, L., GRUNFELDER, J., NORLÉN, G., WANG, S., RANDALL, L., LINDBERG, G., (2016). *Trends, challenges and potentials in the Baltic Sea Region*. Stockholm: Nordregio. ISBN 978-91-87903-75-5.
- [32] SANTOS, M. E., SANTOS, G., (2014). *Composite Indices of Development*. Oxford: Oxford University Press. ISBN 978-0-19-967166-3.
- [33] SILVA, R., FERREIA-LOPES, A., (2014). A Regional Development Index for Portugal. *Social Indicators Research*, vol. 118, no. 3, pp. 1055-1085. ISSN 0303-8300.
- [34] ŠORCARU, I.A. (2014). Human Potential as a Source of Economic Development. Case Study Tecuci Plain. *Acta Universitatis Danubius*, vol. 10, no 2, pp. 152-162. ISSN 2065-0175.
- [35] STANIČKOVÁ, M., (2017a). Can the implementation of the Europe 2020 Strategy goals be efficient? The challenge for achieving social equality in the European Union. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, vol. 12, no. 3, pp. 383-398. ISSN 1689-765X.
- [36] STANIČKOVÁ, M., (2017b). Creation of Composite Index of the EU Regional Resilience: Analysis and Selection of Indicators. In *Proceedings of the 13th International Conference. Liberec Economic Forum 2017*. Liberec: Technical University of Liberec, pp. 136-144. ISBN 978-80-7494-349-2.
- [37] STEPHENS, H.M., PARTRIDGE, M.D., FAGGIAN, A., (2013). Innovation, Entrepreneurship and Economic Growth in Lagging Regions. *Journal of Regional Science*, vol. 53, no.5, pp.778-812. ISSN 1467-9787.
- [38] STIGLITZ, J., SEN, A.K., FITOUSSI, J.P., (2009). The measurement of economic performance and social progress revisited: reflections and overview. *OFCE Working Paper*. New York: Columbia University.
- [39] SVOBODIN, V. A., (2011). *Complex economic analysis of economic activity*. M: Dashkov.
- [40] UNITED NATIONS, (2016). *Resilience Index Measurement and Analysis*. Rome: Food and Agriculture Organization of the United Nations. ISBN 978-92-5-109235-4.
- [41] VITURKA, M., (2014). Integrative model for evaluation of development potential of regions and its application on an example of the Czech Republic. *Ekonomie E+M*, vol. 17, no. 4, pp. 4-19. ISSN 1212-3609.
- [42] WANG, X., (2007). Who's in First? A Regional Development Index for the People's Republic of China's Provinces. *ADB Institute Discussion Paper*, no. 66. Japan: Asian Development Bank.
- [43] ŽÍTEK, V., KLÍMOVÁ, V. (2013). Position and development potential of North-Eastern Baltic Sea regions. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, vol. LXI, no. 4, pp. 1203–1211. ISSN 1211-8516.

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