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Competitiveness of Metropolitan Regions in Visegrad Counties

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Abstract

Nowadays competition between regions and consequently the examination of regional competitiveness has become a research question of outstanding importance. In our study we will first look at the definition of competitiveness and the frames of interpretation related to its definition. Afterwards we will proceed to analyse the competitiveness of 93 NUTS3 level regions of 4 East-Central European countries (Czech Republic, Hungary, Poland, Slovakia) with the help of an empirical data base, using principal component analysis method. Regional competitiveness studies tend to be relative, that is why we mostly compare the competitiveness of the metropolitan regions to each other.

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Keywords: Regional competitiveness; metropolitan regions; visegrad counties; three factor model.

1. Introduction

For today competitiveness has become a popular concept, it signifies the inclination and skill to compete, the ability to gain and permanently maintain position in territorial competition, which is indicated primarily by successfulness (measured in some way) and the ability to succeed. In regional studies the competitiveness of regions and cities incorporates regional economic development, as a result of which the average standard of living in the region improves (Annoni & Dijkstra, 2013; Camagni & Capello, 2010; Huggins et al, 2014; Lengyel, 2004; Lengyel & Rechnitzer, 2013; Ženka et al, 2014). Competitiveness and its causes in transition economies have become a research question of outstanding importance in the four Central European post-socialist countries (Czech Republic,

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Hungary, Poland, Slovakia), because there is a considerable gap within the European Union between longer term members and those countries joining in 2004

Competitiveness of regions and cities may be well described by the widely recognized definition of Storper (1997, p. 20): 'The ability of an (urban) economy to attract and maintain firms with stable or rising market shares in an activity while maintaining or increasing standards of living for those who participate in it'. The European Competitiveness Reports also adopt this approach (EC, 2008, p. 15): 'competitiveness is understood to mean a sustained rise in the standards of living of a nation or region and as low a level of involuntary unemployment as possible'. Aiginger (2006) defines competitiveness as '…the ability of a country or location to create welfare' (p. 161). He classifies two types of approaches to the measurement and conceptualization of competitiveness: outcome (output) evaluation and process evaluation.

Huggins and Thompson (2013) compiled a Three Factor Model (TFM) to prepare the UK Local Competitiveness Index, which differentiates between input, output and outcome factors. *Input factors* include economic activity rates, business start-up rates, number of businesses per capita, proportion of working age population with NVQ level 4 or higher, proportion of knowledge-based businesses. *Output factors* relate to how these inputs are used to generate economic outputs captured by GVA per head at current basic prices, labour productivity and employment rates. The final group, *outcome factors*, are those associated with the standard of living measured by gross weekly pay and unemployment rates.

The paper analyses the competitiveness of 93 NUTS3 level regions of four Central European countries (Czech Republic, Hungary, Poland, and Slovakia) with the help of an empirical data base, using multivariable statistical methods. Regional competitiveness studies tend to be relative, that is why we mostly compare the competitiveness of the metropolitan regions to each other according to outcome and output factors of Three Factor Model.

2. Database and methodology

We have selected the county, that is the NUTS3 level as the territorial unit of our study. In the Eastern and Central European countries the NUTS3 territorial level is closer to the actual spatial structure of the economy than NUTS2 regions. In all four countries the capital cities constitute a separate county, which we handle collectively with the neighboring counties representing their agglomeration, but we also combined further seven metropolitan counties of Poland (Lengyel, 2016). Thus the study analyses 13 counties in the Czech Republic, 19 counties in Hungary, 54 counties in Poland, and seven counties in Slovakia, giving 93 counties in total, out of which 12 are metropolitan regions in focus at least million inhabitants. The average population of the examined territorial units is 690,000 people, the smallest county has a population of 200,000, while the largest has a population of 3,280,000.

We adopt the Three Factor Model regional competitiveness framework of Huggins and Thompson (2013). *Outcome* is measured utilizing three indicators:

- *Disposable income per capita* (DI): Real adjusted gross disposable income of households per capita (recalculated by wages of counties), PPS, 2013 (Statistical Office of V4 countries);
- *Unemployment rate* (UR): Registered unemployment rate of age group 15-64, %, 2013 (Statistical Office of V4 countries);
- *GDP per capita* (GP): GDP at current market prices by NUTS 3 regions [Eurostat nama_10r_3gdp], recalculated by PPS, 2012.

Output is also measured utilizing three following indicators:

- *Labour productivity* (LP): GDP at current market prices by NUTS 3 regions [Eurostat nama_10r_3gdp], millio euro, 2012 and employed persons;
- *Employment rate* (ER): Employment rate of age group 15-64, %, 2013 (Statistical Office of V4 countries);
- *Gross value added (GVA) per capita* (GA): Gross value added (GVA) at basic prices by NUTS 3 regions [Eurostat nama_10r_3gva], 2012, millio euro.