The Local Organizing Committee
The European Regional Science, School
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Summary of the research project for the 37th ERSA Summer School

Regional Economic Resilience in Central Europe:
Theoretical-Methodological Approaches and Empirical Applications

Regional economic resilience, a theoretical-methodological framework that emerged in response to the 2008 economic crisis, has received significant attention in the literature. Despite the strong criticism of being an overused "buzzword" with vague definitions (Martin, Sunley 2015) it has become a crucial concept applicable to non-linear economic systems. According to Martin and Sunley (2007), economic systems are characterized by a non-linear trend with phases of economic declines or growth in regional and national economic development. The primary strength of using the concept of regional resilience is its ability to measure and explain this fluctuation within the economic cycle (Martin, Sunley, Tyler 2015).

Various approaches exist for quantifying regional resilience. While a lot of studies utilize unemployment or employment rates as key variables for measuring resilience at the unit level, alternatives such as GDP can also provide valuable insights (Sutton et al., 2023). Moreover, different formulas are used to operationalize and calculate regional resilience in academic literature. For instance, Giannakis and Bruggeman (2017) measure regional resilience by changes in employment, while Cappelli, Montobbio, and Morrison (2021) used unemployment and a number of patents.

This research uses a unique database of unemployment rates in six selected Central European countries in the early 21st century at the municipal level. This detailed administrative structure allows to identify areas with varying levels of regional resilience (based on unemployment dynamics) while minimizing the modifiable areal unit problem which is caused by differences in the delimitation of the unit's administrative boundaries (Wong 2004). One of the recommendations to minimize this problem is to use as a detailed regional structure as possible (Netrdová, Nosek 2017). Additionally, this detailed administrative structure reveals that may be obscured in analyses conducted at higher regional levels.

This primary objective of this research project is to introduce and discuss several approaches for measuring regional resilience across Central European countries at a detailed municipal level. The focus will be on comparing different calculation methods and interpreting the main findings. Furthermore, the results of regional resilience measurement will serve as input variable for other statistical and spatial methods, such as hot spot analysis, geographically weighted regression, enriching the analysis and providing deeper insights into regional economic dynamics.

References

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An example of map output of proposed research project

Map 1: Regional economic resilience at municipal level in Central European countries
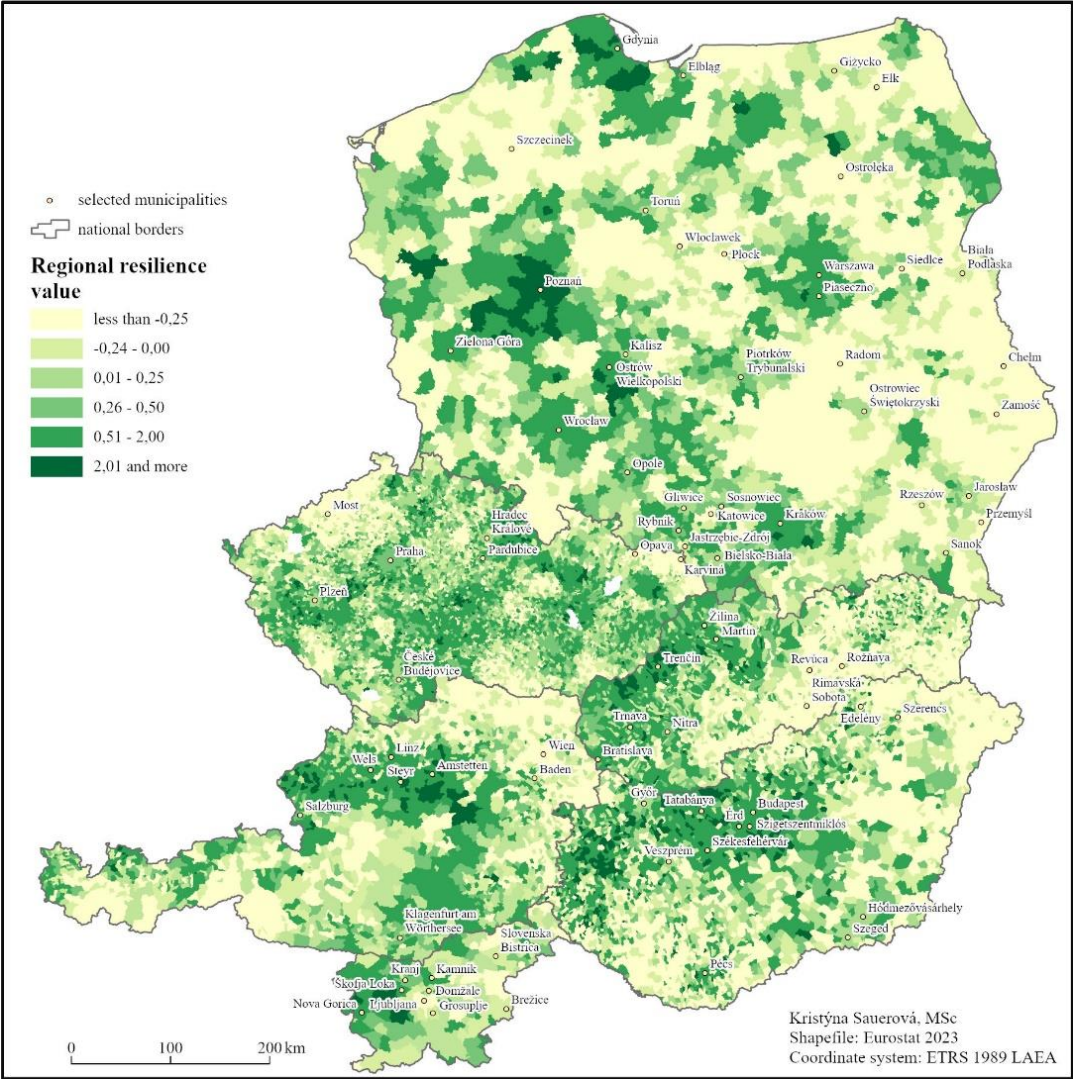
Note: The calculation according to Giannakis's and Bruggeman's (2017) is used.