

Mapping Regional Development Traps in Central and Eastern Europe: A Multi-Scale Analysis of NUTS2 and NUTS3 Regions

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Regional disparities remain among the most persistent challenges of European integration, despite the substantial economic transformation experienced by Central and Eastern European (CEE) countries since EU accession. Recent debates in regional science have increasingly focused on the concept of the regional development trap, which extends the logic of the middle-income trap to the territorial level and highlights the uneven and often path-dependent nature of regional development. Building on the framework proposed by Diemer et al. (2022), this study provides a systematic portrait of regional development traps across the CEE macro-region and examines how their spatial patterns differ across territorial scales.

The analysis covers 11 CEE countries and investigates 61 NUTS2 and 238 NUTS3 regions using ARDECO annual data for the period 1995-2024. Development trap risks are assessed through a composite framework incorporating GDP per capita, labour productivity, and employment structure indicators. Regions are classified according to both their development trap risk and income level relative to either the European Union or the CEE average, enabling a comparative assessment of territorial development dynamics.

The results reveal that although a broad catch-up process has taken place in the CEE region, convergence remains incomplete and substantial territorial disparities persist. The geography of regional development traps differs markedly between NUTS2 and NUTS3 levels, indicating that territorial scale significantly influences the identification and interpretation of development constraints. Furthermore, development traps are not limited to low-income regions. Several middle-income and higher-income territories also display characteristics associated with persistent developmental lock-in, suggesting that economic growth alone does not guarantee successful structural transformation.

The findings contribute to the growing literature on regional development traps by offering the first comprehensive comparative mapping of trap patterns across Central and Eastern Europe at multiple territorial scales. The study underlines the importance of place-sensitive development policies and highlights the need to consider the quality and spatial distribution of structural change alongside traditional measures of economic performance.

Keywords: regional development traps; Central and Eastern Europe; regional disparities; structural transformation; NUTS2; NUTS3; regional convergence.