The Portrait of Regional Development Traps in Central and Eastern Europe

Extended Abstract

Global economic development in the 21st century is increasingly structured by the inherent tensions between economic integration, national sovereignty, and democratic accountability, as conceptualized by Rodrik’s political trilemma (Rodrik 2000, 2011). This framework highlights the structural trade-offs embedded in global capitalism: deep economic integration constrains national policy autonomy, while democratic demands for redistribution and protection often clash with the discipline imposed by global markets. Crucially, these tensions are not spatially neutral. They manifest unevenly across territories, producing differentiated regional trajectories within countries and across the European Union.

The growing body of literature on regional inequality has demonstrated that economic integration does not automatically generate territorial convergence (Iammarino, Rodríguez-Pose & Storper 2019). While some regions manage to embed themselves successfully into global production networks and innovation systems, others experience persistent stagnation, deindustrialization, or structural lock-in. Traditional core–periphery models explain these asymmetries through cumulative causation, agglomeration economies, and structural disadvantages rooted in geography and institutional capacity (Smetkowski 2018). However, these approaches often remain relatively static and do not fully capture the dynamic mechanisms through which regions become locked into persistent low-growth equilibria.

The concept of the regional development trap, introduced and elaborated in recent European policy and academic debates (European Commission 2020; Diemer et al. 2022, Cinar 2023 a,b), offers a more process-oriented and temporally sensitive framework. It shifts the focus from simple divergence to self-reinforcing stagnation dynamics. Regions caught in a development trap are not necessarily poor in absolute terms; rather, they fail to sustain productivity growth, structural upgrading, and innovation intensity over time. They become locked into low value-added activities, limited diversification, and weak institutional learning capacities. Importantly, development traps are not merely outcomes of external disadvantage but are also shaped by internal structural and socio-economic configurations (Diemer et al. 2022).

Although the regional development trap framework has been applied at the European scale, most analyses adopt an aggregate EU-wide lens. This perspective, while useful for comparative benchmarking, obscures important intra-national heterogeneity. Central and Eastern European (CEE) countries provide a particularly revealing case. Since EU accession, most CEE economies have demonstrated significant macroeconomic convergence toward the EU average, supported by foreign direct investment (FDI), structural funds, and export-oriented industrial integration (Gál & Lux 2022; *Sass et al;* 2018, Vas et al. 2024). At the national level, GDP per capita and employment indicators suggest successful catch-up trajectories.

Yet this macro-level convergence masks profound territorial asymmetries. Beneath national averages, subnational regions follow highly differentiated development paths. Dynamic metropolitan regions—typically capital cities and major urban agglomerations—have integrated into global value chains, attracted high-skilled labour, and developed relatively diversified service and innovation ecosystems. In contrast, many rural, peripheral, and old industrial regions exhibit structural vulnerabilities: dependence on low value-added manufacturing, demographic decline, limited innovation capacity, and fragile labour markets. As a result, despite national-level catch-up, numerous regions remain trapped in low-productivity, low-innovation equilibria (Vas et al. 2024).

Furthermore, currently, the challenges facing CEE have become even more pressing due to shifting geopolitical and economic conditions. The Russian-Ukrainian conflict has fundamentally altered regional development dynamics, raising urgent questions about economic resilience, twin transition structural stagnation, and inequality (*Egri-Lengyel 2024, Gao 2024, Kiss-Páger 2024*). At the same time, the European Union's push for economic integration has placed increasing pressure on these regions to catch up with Western European standards, despite persistent structural barriers (*Draghi 2024*). Understanding why some regions continue to struggle despite decades of financial support and policy interventions is now more critical than ever.

This presentation seeks to provide a systematic portrait of regional development traps in Central and Eastern Europe by shifting the analytical focus to the NUTS3 territorial scale. The central research question guiding the analysis is: **What types of regional development traps exist in Central and Eastern Europe at the NUTS3 level?** Addressing this question requires moving beyond conventional benchmarking against the EU average and developing a more territorially sensitive analytical framework.

Methodologically, we construct a modified regional development trap index tailored to the structural and historical specificities of CEE economies. Traditional approaches typically rely heavily on GDP-based indicators and EU-wide comparisons. However, given the distinct convergence trajectory of post-socialist economies, benchmarking CEE regions exclusively against Western European standards risks misclassifying structurally stagnant regions as converging. Our modified index evaluates regional performance relative to the CEE average and incorporates additional dimensions capturing productivity dynamics, employment growth, sectoral structure, and innovation intensity. This adjustment allows for a more accurate identification of territorially embedded stagnation patterns and structural lock-ins at the NUTS3 scale.

Our empirical findings reveal that the CEE development trap has distinct structural roots. First, historical legacies of post-socialist transformation continue to shape regional trajectories (*Gorzelak 2021*). The rapid liberalization and privatization processes of the 1990s, combined with the collapse of socialist industrial networks, produced uneven restructuring outcomes. Regions able to attract foreign capital and integrate into export-oriented manufacturing networks experienced rapid growth, while others faced industrial decline without sufficient endogenous renewal.

Second, uneven sectoral restructuring has reinforced spatial polarization. Many CEE regions exhibit strong specialization in assembly-type manufacturing activities embedded in global value chains but limited local value capture. This form of dependent integration constrains technological upgrading and innovation diffusion. In contrast, metropolitan cores have diversified toward knowledge-intensive services, ICT sectors, and higher education functions, consolidating their growth advantages.

Third, the strong reliance on foreign direct investment has generated asymmetric development structures. While FDI inflows have supported modernization and employment in certain regions, they have also entrenched dual economic structures. Local small and medium-sized enterprises often remain weakly integrated into international networks, limiting spillover effects. This structural dualism contributes to regional lock-in mechanisms characteristic of development traps.

At the NUTS3 level, these processes produce distinct trap typologies. We observe: (1) old industrial traps characterized by deindustrialization, demographic decline, and weak diversification; (2) dependent manufacturing traps marked by export-oriented but low value-added specialization; (3) rural peripherality traps associated with limited accessibility, aging populations, and narrow economic bases; and (4) stagnating secondary urban regions struggling to compete with dominant metropolitan cores.

Across these types, common features include labour market polarization, limited human capital accumulation, fragile innovation ecosystems, and restricted social mobility. In several cases, internal income inequalities deepen alongside stagnation, reinforcing cumulative disadvantage. Consequently, despite overall national and relative convergence toward core Europe, numerous NUTS3 regions continue to experience modest productivity growth, weak employment expansion, fragile economic diversification, and vulnerability to external shocks.

The geopolitical and structural transformations of the 2020s—including digital transition pressures, energy vulnerability, and the economic consequences of the Russian-Ukrainian conflict—further expose these regional fragilities. Regions heavily dependent on energy-intensive manufacturing or external demand are particularly vulnerable, intensifying the risk of persistent stagnation.

By refining the development trap concept at a finer territorial scale, this analysis contributes to a more differentiated understanding of structural stagnation in middle-income European economies. It demonstrates that development traps in CEE are not uniform but territorially specific, shaped by the interaction of historical legacies, sectoral structures, integration patterns, and institutional capacities.

The findings underscore the limits of one-size-fits-all cohesion policies and highlight the need for spatially sensitive, place-based interventions. Breaking self-reinforcing cycles of regional divergence requires policies that foster economic diversification, strengthen local innovation systems, enhance human capital formation, and improve institutional learning capacities. Only by addressing the territorially embedded mechanisms of stagnation can CEE regions move beyond partial convergence and achieve sustainable, inclusive development trajectories.

In this sense, the portrait of regional development traps in Central and Eastern Europe is not merely descriptive. It calls for a rethinking of how convergence is conceptualized, measured, and governed within the European integration framework, placing territorial heterogeneity and structural transformation at the center of regional development analysis.

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