When Economic Security and Growth Are Constrained: Trade Vulnerability in European Regions

Extended Abstract

Trade integration has long been regarded as a central driver of regional economic growth and convergence. Within regional economic theory and policy frameworks, openness to international markets has been associated with productivity gains, export-led upgrading, and enhanced regional competitiveness. However, recent crises—including the global financial crisis, energy supply disruptions, and renewed geopolitical tensions—have revealed the limits of trade-dependent growth models. Reliance on international supply chains, while often desirable and a source of productivity gains, can also increase exposure to global and external shocks (Arvis et al., 2025; Garcia and Ho, 2025). As a result, trade integration has become increasingly intertwined with concerns over economic security and sustainability, exposing regions to external vulnerabilities and constraining their growth trajectories. These developments call for a re-examination of how trade openness, regional growth potential, and economic security interact across space (OECD, 2025; European Council, 2025).

Moreover, the resurgence of trade conflicts in the late 2010s marked a decisive shift in the global political economy of trade. The escalation of tariff-based disputes during the Trump administration signalled a departure from the assumption that international trade would remain a stable and predictable driver of economic growth. Trade relations, long treated as technocratic and rule-based, became increasingly politicised, contingent, and strategically contested. While these developments were negotiated at the national and supranational levels, their economic consequences were unevenly distributed across space, exposing deep-seated asymmetries in how regions are integrated into global markets.

For the European Union, this moment represented less a rupture than a revelation. Long before the emergence of explicit trade wars, EU regions had been incorporated into international trade through highly differentiated pathways, shaped by sectoral specialisation, global value chain positioning, and uneven productive capacities. As external trade relations became more volatile—through tariffs, retaliatory measures, supply chain disruptions, and heightened uncertainty—the vulnerability of certain regions to external shocks became increasingly visible. Yet existing debates on trade openness and regional development continue to privilege national-level analyses or focus narrowly on competitiveness and export performance, leaving the regional dimensions of trade-related vulnerability insufficiently theorised and empirically specified.

This paper argues that foreign trade constitutes not only a source of growth and opportunity, but also a structurally embedded source of regional vulnerability. Episodes such as the Trump-era trade wars do not generate this vulnerability; rather, they activate and expose trade dependencies that have accumulated over time through uneven patterns of regional integration into global markets. Understanding these vulnerabilities requires moving beyond event-driven explanations and towards a structural perspective that captures how exposure, specialisation, and adaptive capacity interact at the regional level.

Despite a growing literature on globalisation, shocks, and regional resilience, systematic analyses of trade-related vulnerability remain limited in three important respects. First, much of the literature treats vulnerability as an episodic outcome associated with specific crises, rather than as a structural condition rooted in long-term development trajectories. Second, existing work tends to operate at the national scale, obscuring substantial intra-national variation in trade dependence and sensitivity to external shocks. Third, when regional perspectives are adopted, they often rely on single indicators—such as export intensity or sectoral employment, thereby underestimating the multi-dimensional and relational nature of vulnerability.

Addressing these limitations, this paper develops a theoretically grounded framework for conceptualising and measuring regional vulnerability to foreign trade integration across EU NUTS II regions since 2000. Drawing on political economy perspectives on uneven development, dependency, and strategic selectivity, we conceptualise vulnerability as a relational condition produced by the interaction between external trade dependence, structural fragility arising from specialisation and concentration, and uneven regional capacities to adapt to changing trade environments. This approach explicitly challenges interpretations of trade openness that equate higher integration with greater resilience or competitiveness, and instead foregrounds the asymmetric risks embedded in regional trade structures.

Rather than treating growth and degrowth as normative positions for or against trade, the paper mobilises them as competing analytical perspectives on regional dependence, vulnerability, and development potential. By empirically assessing the degree and structure of regional trade dependence, the analysis provides a material basis for evaluating claims about the sustainability and resilience of export-led regional growth trajectories under conditions of increasing global instability.

The paper is guided by three research questions:

1. How are trade exposure and trade-related vulnerabilities unevenly distributed across regions?
2. To what extent do trade-related vulnerabilities constrain regional growth capacity and resilience?
3. How can degrowth and post-growth perspectives be reinterpreted as regionally grounded responses to structurally constrained growth environments shaped by trade dependence?

The focus on the period since 2000 is analytically deliberate. This period encompasses the deepening of the EU Single Market, successive rounds of enlargement, the consolidation of global value chains, and the crisis-mediated restructuring of European economies following the global financial crisis. These processes progressively locked regions into differentiated positions within international trade networks, generating path-dependent patterns of exposure that predate more recent trade conflicts. By examining regional vulnerability over this longer horizon, the analysis captures structural conditions rather than short-term fluctuations, allowing trade wars and other shocks to be interpreted as moments that reveal, rather than redefine, underlying vulnerabilities.

To operationalise this conceptual framework, the paper introduces a Regional Foreign-Trade Vulnerability Index for several regions. The index integrates three analytically distinct but interrelated dimensions: external trade dependence, capturing the extent to which regional economic reproduction relies on foreign demand; structural fragility, reflecting the degree of concentration and specialisation in export structures; and limited adaptive capacity, indicating constraints on regions' ability to reorient production and trade in response to external shocks. Constructed using harmonised OECD Regional Database and Eurostat data, the index provides a comparative and longitudinal perspective on how vulnerability is distributed across European regions.

Importantly, the aim of the index is not to rank regions according to performance, nor to identify "winners" and "losers" of trade integration in a simplistic sense. Rather, it serves as a diagnostic tool that reveals the spatial unevenness of exposure to external trade volatility and the structural limits within which regional economies operate. Highly export-oriented regions may simultaneously exhibit high vulnerability if their integration is narrowly specialised and weakly buffered by adaptive capacities, while less open regions may be relatively insulated yet structurally constrained in other ways. This perspective allows for a more nuanced understanding of how trade integration intersects with regional inequality, political discontent, and the differentiated impacts of economic shocks.

Empirically, the paper maps patterns of regional trade vulnerability across the EU and demonstrates their persistence over time. The analysis identifies distinct regional configurations of vulnerability, including highly exposed industrial regions with limited adaptive capacity, selectively integrated regions combining openness with diversification, marginalised regions weakly connected to international trade, and buffered core regions characterised by diversified and flexible economic structures. These patterns underscore the extent to which vulnerability is embedded in long-term regional development trajectories rather than being reducible to short-term policy shocks.

By foregrounding regional trade vulnerability, this paper contributes to ongoing debates in regional studies in three ways. First, it advances a conceptual shift from competitiveness-centred interpretations of trade openness to a vulnerability-oriented political economy perspective. Second, it provides a systematic and theory-driven operationalisation of vulnerability at the regional scale, addressing a notable empirical gap in the literature. Third, it offers new insights into the spatial foundations of uneven development in the EU, with implications for understanding the regional consequences of trade conflicts, industrial policy shifts, and broader transformations in the global trade regime.

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