Extended Abstract

Title: The Geography of Integration and Regional Growth in the EU

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Abstract

Economic integration has been a contested subject in the academic debate among economists and policymakers, particularly regarding its effects on regional growth and disparities. While economic theory suggests that trade openness and integration will promote economic convergence among trading regions, empirical evidence paints a more complex picture. The European Union (EU), with its deepening economic integration, provides an ideal setting to examine convergence vs divergence dynamics.

This study investigates the relationship between trade integration and regional economic growth in the EU, with a specific focus on the differentiated impacts of core-periphery trade relationships. Through the use of a novel dataset encompassing trade flows at the NUTS II regional level, this study applies panel econometric models to determine whether trade integration fosters convergence or exacerbates regional inequalities.

Theoretical foundations of economic integration emphasize trade as a means of resource allocation optimization, technological spillovers, and productivity enhancement. The Ricardian model of comparative advantage and the Heckscher-Ohlin framework suggest that regions will specialize in sectors where they hold a relative comparative advantage, leading to mutual benefits from trade. In an EU context, these theories have historically justified policies promoting deeper economic integration, including the establishment of the Single Market and the Economic and Monetary Union. However, despite these policies, regional disparities persist, and evidence from trade balances reveals that some regions experience chronic trade deficits while others accumulate surpluses. This suggests that trade integration may not be an equalizing force but rather one that in some cases amplifies existing structural imbalances.

Empirical studies on regional disparities within the EU highlight the impact of agglomeration economies, where core regions benefit from capital accumulation, skilled labor pools, superior infrastructure as well as accessibility and connectivity, while peripheral regions face challenges in competing with more advanced economies under conditions of open trade due to import penetration pressures in certain critical sectors and peripherality. New Economic Geography (NEG) theory, as proposed by Krugman (1991), suggests that integration can lead to spatial

concentration of economic activity, reinforcing regional imbalances. Similarly, new trade theories indicate that economies with stronger industrial bases and innovation capacities benefit disproportionately from trade liberalization. These perspectives challenge the neoclassical assumption that trade integration automatically leads to regional convergence.

To empirically assess these issues, this study utilizes a unique dataset covering EU regions at the NUTS II level for the period 2010-2018. The core variable of interest is the EU trade integration index, measuring the ratio of a region's trade with the EU over its total trade. This index is further disaggregated into:

- **Core Trade Integration**: Trade between peripheral regions and core EU partners.
- **Peripheral Trade Integration**: Trade among peripheral EU regions.
- **Services Trade Integration**: Trade in services as a share of GDP.

A conditional beta-convergence growth model is employed, using fixed-effects panel regressions with Driscoll-Kraay standard errors to address issues of heteroscedasticity and cross-sectional dependence; we use year lags to partly mitigate endogeneity concerns. The model is enriched with a set of growth determinants controlling for economic and geographical region characteristics.

The findings of this study reveal a nuanced relationship between trade integration and regional growth. At the aggregate level, trade integration is associated with positive economic performance, but this effect is highly uneven across different types of regions. Core regions tend to reap significant benefits from trade, whereas peripheral regions, particularly those engaging predominantly in trade with core economies, experience limited or even negative growth effects. These findings align with previous research highlighting the deindustrialization of Southern and Eastern European regions due to heightened competition from advanced economies.

A crucial observation is that trade between peripheral regions (INTPER) has a positive and significant impact on growth. This suggests that economic interactions among similarly developed regions foster mutual benefits and minimize disruptive competitive pressures. In contrast, trade between peripheral and core regions (INTCOR) is found to have a negative effect on peripheral regional growth, likely due to structural disadvantages that hinder competitiveness. Import penetration from core regions tends to exert downward pressure on domestic industries in less developed areas, reducing their long-term growth potential.

An important dimension explored in this study is the role of trade in services, which has emerged as a critical factor in recent empirical evidence. Unlike trade in goods, which often exposes weaker regions to destructive competition, services trade appears to facilitate knowledge transfer, innovation, and economic diversification. The findings indicate that trade in services, particularly between peripheral regions and core partners, has a significant and positive impact on growth. This suggests that while goods trade may reinforce structural disparities, services trade offers an opportunity for weaker regions to integrate into the global economy without suffering from immediate competitive disadvantages.

Furthermore, this study finds that core-core trade integration does not always lead to positive growth effects. In some cases, trade among core regions is associated with negative or insignificant growth impacts, implying that even the most developed regions are not uniformly benefiting from increased trade liberalization. This challenges the conventional belief that all forms of trade expansion are inherently beneficial and suggests that regional trade dynamics must be assessed in a more granular manner.

These findings have profound policy implications. First, the results underscore the need for a more regionally differentiated approach to trade policy in the EU. While deeper integration remains a fundamental objective, it is clear that not all regions are equally prepared to compete under the same conditions. Industrial policy should focus on enhancing the competitiveness of peripheral regions through investments in high-tech industries, research and development, and infrastructure improvements. Targeted financial assistance and trade adjustment mechanisms should be employed to mitigate the adverse effects of core-periphery trade dynamics.

Second, policies aimed at promoting services trade could play a crucial role in fostering regional convergence. Given the positive impact of service integration on regional growth, strategies that encourage digital transformation, investment in information and communication technologies (ICT), and support for knowledge-intensive sectors could help peripheral regions achieve sustainable economic development. Encouraging regional specialization in high-value-added service industries may also serve as a buffer against the negative impacts of traditional goods trade.

Third, the findings suggest that export-led growth strategies in core regions may need to be reconsidered. The evidence that core-core trade integration does not always lead to positive economic outcomes raises questions about the sustainability of existing trade patterns. Policies that enhance domestic demand and promote balanced growth across regions could provide a more stable foundation for economic integration. Fiscal policies, including minimum wage adjustments and targeted tax reductions, could stimulate consumption in both core and peripheral regions, fostering a more inclusive growth trajectory.

In conclusion, this study provides robust empirical evidence that EU trade integration is not a one-size-fits-all mechanism for economic growth. While integration fosters aggregate economic expansion, its benefits are unevenly distributed, with peripheral regions facing structural challenges that hinder their ability to compete. Trade with core partners imposes significant pressures on weaker regions, whereas trade among similarly developed peripheral regions generates more equitable growth outcomes. The results also highlight the transformative potential of services trade, suggesting that policies promoting digital and knowledge-based economies could contribute to regional convergence. Moving forward, a more regionally sensitive approach to EU economic policy is necessary to ensure that integration serves as a tool for cohesion rather than divergence. Future research should delve deeper into sector-specific trade dynamics and explore policy interventions that can mitigate the unintended consequences of integration. By addressing these challenges, EU policymakers can foster a more resilient and inclusive economic landscape that benefits all regions equally.