Exploring the structure of global value chains in European economic convergence

Topic: Input-Output Modelling: Trade and Global Value Chains Policies - II
Author: LucÃa BOLEA
Co-Authors: Rosa DUARTE, Geoffrey J.D. HEWINGS, SofÃa JIMÃ‰NEZ

In recent decades, the role of globalization and the organization of production around global supply chains has become central in explaining the heterogeneity in the economic growth processes worldwide, also favoring an increasing connection between economically different and geographically distant countries and regions. Previous literature has focused on the consequences of globalization for the evolution of the convergence processes. Different authors find that, since the beginning of globalization, there has been a significant polarization of growth, promoting the articulation of a group of "advanced" areas in contrast to other areas that are â€œlagging behind." In the latter case, the opportunities for current and future development seem severely limited, generating important implications for European cohesion in the medium and long term.

In this context, our paper aims to analyze to what extent the configuration of global value chains in Europe, and the way in which the regions have engaged in them (measured by the degree of specialization and position in the global value chains), has been a source of economic development of the regions and how this has contributed to the processes of income convergence in Europe. We are also interested in exploring the role of sectoral and interregional spillovers and the influence of the neighboring regions in these results, with different measurements of geographical, sectoral and functional distance.

Empirically, we use the last available version of the EUREGIO database. It covers the period 2000-2010 and it is constituted by 249 European regions (NUTS2 level) and 14 economic sectors by each region. While the full model documents 14 economic sectors, in a first analysis, we aggregate to a single sector as a prelude to more detailed information involving the multisector model in the second part of the paper. Indicators obtained from a multiregional and multectorial input-output model for the European regions are here combined with an econometric spatial analysis aiming at controlling for regional heterogeneity in the economic outcomes.

Our results suggest that the level of income is significant to explain the behavior of regions and their evolution in the last decade. In addition, our initial findings show that European regions that are more focused on the European productive chain and are in upstream positions of the chain, are those that present lower growth rates. However, the more globalized European regions, more open to global production chains and which are in more downstream positions, exhibit higher growth rates. Additionally, it seems that the urban, intermediate or rural character of the regions play a significant role, with the regions of the urban group characterized by lower growth rates, indicating a possible process of beta convergence.

This work attempts to shed light on the discussion of the consequences of globalization on the areas of economic integration and the effects of this phenomenon on bilateral trade flows between European regions. In addition, it tries to clarify if the European economies are really advancing at the same rate of growth, or if there are some lagging behind.
In our view, the results could contribute to clarify the economic state of the different European regions, as well as their levels of vulnerability to shocks. In addition, these results may influence the design of economic policies that should be focused on providing more opportunities to the regions that are lagging behind and which do not seem to matter as much.