What can we learn from the distribution of trade patterns?
Evidence for Portugal, Spain, Greece and Ireland

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Abstract This paper proposes an empirical framework for analyzing the dynamics of trade specialization, using a symmetric transformation of the standard Balassa (Manch Sch Econ Soc Stud 33(2):99–123, 1965) index and the conditional density estimation methods suggested by Hyndman et al. (J Comput Graph Stat 5(4):315–336, 1996). The framework is implemented using data on the cross-sector export and import specialization of the four initial EU Cohesion countries over the last 40 years. We discuss the importance of studying both the distribution’s external shape and the intra-distribution dynamics and why it is interesting to include imports in the analysis. We find a reduction of the overall degree of export specialization in Portugal, Greece and Spain. Conversely, Ireland has the strongest export specialization and there is evidence of an increase over time. The export intra-distribution dynamics reveal persistence of the specialization status in the four countries, especially for high values of the index. In all countries, the degree of specialization is higher for exports than for imports and intra-distribution dynamics reveal more mobility of import specialization than that of exports.

Keywords International trade · Balassa index · Distribution dynamics

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