

Trade flows treatment in multi-regional input-output tables

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Trade policy analysis has become increasingly complex. The current COVID-19 pandemic has had drastic and unprecedented impact on trade, employment and GDP worldwide. It affected and in many cases disrupted the sourcing of foreign value-added along global supply chains and altered companies' decisions in respect to their preferred choice of optimal intermediate inputs mix with often crucial implications for domestic production and exports. Trade flows were affected severely by the pandemic with exports of goods and services declining by 8.5% on a global basis and by 14% in the EU. In this fast changing and unpredictable environment, the quality and the availability of accurate and updated input data feeding quantitative models for trade policy analysis becomes even more important. Reliable data is an indispensable requirement to be able to analyse and evaluate the importance and impact of trade policy for the economy as a whole and for singling out the effect on workers, firms and consumers.

Multi-regional input-output tables (MRIOs) and models are the working horse upon which quantitative assessment of trade policy has been based as they provide a balanced view of the production and value-added composition of downstream and upstream industries across sectors and borders. Having said that, it is not well known that trade flows at sectoral and country level in MRIOs differ in size in some cases substantially due to the different methodology used in National Accounts to register trade flows (e.g. ownership principle) and the need to treat re-exports in the compilation of MRIO databases. For some years, there are double-digit differences across MRIOs even in aggregate trade flows. This obviously can have severe implications for modelling and quantitative results of trade policy analysis.

Against this background, our research deals with the identification and quantification of regional and sector specific differences in trade flows across three MRIOs: FIGARO, OECD and WIOD. The paper quantifies the impact of such divergences on the economic aggregates, looks into the reasons for the (large) differences in trade data, and provides indications of their impact for trade policy analysis. Furthermore, the paper proposes key areas of future research to overcome such differences in next releases of MRIOs.