Trade between EU countries and the world: Deviations in official inter-country input-output tables and their implications for policy

Topic: Input-output impact analysis (Chair: Keiichiro Kanemoto, Research Institute for Humanity and Nature)
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During the last two decades, research teams and institutions across the world conducted various pilot projects for compiling world coverage inter-country input-output (ICIO) databases. WIOD, Exiobase, GTAP or Eora were outcomes of this process. These new databases allowed performing a wide range of innovative and far-reaching socio-economic and environmental assessments on the impacts of international trade. However, since these were experimental attempts, which followed different assumptions and addressed dissimilar research questions, deviations among them are frequent and noticeable. We are now in a new stage, in which multilateral institutions, such as the OECD and Eurostat, committed to provide official ICIO databases on regular basis, which are or aim to be, fully consistent with official national input-output data and economic macro-aggregates. In this task, the European Union (EU) brings a particular challenge, because of imports and exports matrices, which require that EU trade flows are disaggregated based on assumptions and auxiliary data into intra- and inter-regional fractions. In this paper, we assessed deviations in trade between two officially sponsored databases: the latest OECD's and Eurostat's ICIO tables, both released in 2021. We first compared imports and exports by country and sector for the years available in both databases, i.e. 2010-2018. Second, we estimated indicators on trade in value added, employment and carbon ('embodied') to evaluate the potential impact of the discrepancies on policy monitoring systems. The article closes evaluating possible reasons for such differences, and outlining strategies to overcome them in future releases of both databases.