An IO-perspective on the recent reallocation of trade flows within GVCs

Topic: Input-Output Analysis: Trade and Global Value Chains policies (1)
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Over the past couple of decades, the organization of production in global value chains has been challenged by natural disasters, geopolitical tensions and restrictive trade policies. Recent contributions have shown that this has reshaped trade flows in particular for the United States with a reallocation of imports away from China. However, these contributions have been focused on gross flows, i.e. measuring direct imports. To get deeper insights into trends in global value chains, this paper documents how import flows have changed in gross terms and in terms of output and value added embodied in these gross imports. This is done with data from the OECDâ€™s intercountry input-output tables (ICIOs), which cover more than 80 countries for the years 1995 to 2012. The focus is not only on US imports but also on imports of member states of the European Union.
The calculation of output and value added embodied in gross imports takes into account the issue of double counting in line with recent methodological contributions in this field. The standard input-output approach allows to compare shares of partner countries in gross and value-added imports of the US or a European country with each other and over time. Prior contributions highlight that Chinaâ€™s share in US gross imports has declined in recent years, and they link this to the imposition of tariffs by the US under the first Trump administration. They also suspect that Chinese production is increasingly entering the US through Vietnam and Mexico as both countries have increased their shares in US gross imports. The analysis presented here confirms the decline in Chinaâ€™s share in US gross imports from 2015 onwards. However, it also reveals that Chinaâ€™s share in the value added embodied in US gross imports is substantially lower but has remained rather stable in recent years. By contrast, the Chinaâ€˜s share in imports continues to rise for many European countries, both in gross and in value added terms, at least until 2021.
By splitting a destination countryâ€™s gross imports by partner, it becomes possible in the input-output calculations to identify through which direct partner countries underlying value added is being channeled. This allows to show that an increasing share of the Chinese value added embodied in gross US imports is actually embodied in direct imports from Mexico and Vietnam, thereby confirming the idea put forward in prior work. Digging deeper into imports of European countries based on the same approach reveals the emergence of Ireland as a hub for channeling value added from the US and the UK into the internal market of the EU. As next steps, the aim is (i) to make use of the OECDâ€™s Inter-Country Input-Output tables split according to ownership (domestic-owned and for foreign-owned firms) so as to see whether these findings are driven by foreign affiliates in the respective hub countries, and (ii) to complement these findings with a structural decomposition analysis that identifies the factors underlying changes in the partner country composition of gross and value added inputs of the US and EU countries.