Trade regionalisation and international production networks in Asia

by Isabella Cingolani, Lelio Iapadre and Lucia Tajoli

Discussion

Anna D'Ambrosio

University of Turin, Department of Economics and Statistics "Cognetti de Martiis"

November 28th, 2015

Highlights

- The authors note a rise in the number of regional preferential trade agreements (RPTA) but document a decline in the regionalisation of trade, as measured by revealed trade preference indices (RTP) and regional introversion indices
- They conveniently distinguish between intermediate goods, capital and final goods, and between imports and exports, showing different regionalisation patterns
- They show that, rather than a "global value chain" (GVC) structure of trade, we actually observe a trade structure marked by "international production networks" (IPN)
- They disentangle emerging countries' roles in international trade through the analysis of weighted networks of international trade of intermediate and finished products: these networks are marked by high density and high clustering
- The manufacturing core of international production networks results highly regionalised

Revealed Trade Preference indices: the fascinating job of estimating a "benchmark" for trade

The authors adopt the benchmark of **geographic neutrality**; RTP is calculated as $RTP_{ij} = \frac{(HI_{ij} - HE_{ij})}{(HI_{ij} + HE_{ij})}$.

In turn, HI_{ij} is defined as the share of country i's trade with partner j divided by j's share of world trade and HE_{ij} is defined as the share of country i's trade of all other countries $k \neq j$ divided by their share of world trade.

A possible complementary approach: **a gravity benchmark**

As gravity in trade is "one of the few law-like behaviours in social sciences" (Head and Mayer, 2014)...

- Use the predicted value of trade under a standard gravity model as a benchmark
- Take deviations from the benchmark in terms of the residuals from a two-step panel regression: a measure of "Revealed Trade Preferences"
- Main advantage: allows disentangling the effects of different factors, such as distance, RPTA but also of bilateral ties, wrt to a benchmark that allows for country-level heterogeneity.
- You could also compute a trade introversion index as a ratio btw residuals among RPTA countries and and outside RPTA countries
- I suggest to check Bussiere and Schnatz (2006) and Cheng and Wall (2005)

Global value chains vs. International Production Networks

The authors apply network analysis to describe upstreamness, downstreamness and betweenness of a given country within its trade network, drawing on a tripartire typology of countries:

- exporters of intermediate goods U
- importers of intermediates which are at the same time exporters of final goods B
- importers of finished products D

upstreamness: the share of U exports to B over U's total trade **downstreamness**: the share of D imports from B **betweenness**: the share of B imports from U and exports to B

Possible extensions

- As a descriptive statistic complementing your work on "local suppliers" and export "hubs" I suggest to add in-degree centrality and out-degree centrality
- Alternative measure of upstreamness/downstreamness provided by Antras et al. (2012) in terms of **network distance** from the final good - in our case it could be seen as a distance from D countries.
- A benchmark for GVC? Visually, we clearly saw an IPN structure. Possibly useful to specify how "linear" you would expect a global value chain to be. You report the clustering coefficient for the whole network. Possibly instructive to analyze the clustering coefficient within each role (U,B,D). Under a GVC scenario, we could expect it to be low for each role.

Bibliography

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