Discussion of: "Firm Heterogeneity and Imperfect Competition in Global Production Networks"

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6 September 2022
CompNet ProdTalk

"Global Value Chains": Where do we stand?

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As defined in the 2020 World Development Report:

- "A series of stages involved in producing a product or service that is sold to consumers. Each stage adds value, and at least two stages are in different countries."
- A firm *participates* in a GVC if it is active in at least one stage in a GVC.
- As a concept, a broad umbrella:
  - GVCs are closely related to – though not entirely synonymous with – global supply chains, global sourcing, global production networks, etc. . .

"Global Value Chains": Where do we stand? (cont.)

- Attention to GVCs motivated initially by the rise in trade in intermediate inputs (Hummels, Ishii and Yi 2001; Yi 2003),

  ... which now accounts for ≈50% of global trade flows

- But... GVCs are more than just trade in intermediates.

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- Embody purposeful decisions by firms on the structure of their production processes, with regard to. . .
  - Location(s): sources of inputs; where to undertake production/assembly
  - Organizational mode: Fully integrated ownership, arm's length outsourcing, or something in between (e.g., whether to use an intermediary)
  - Transport: Shipping routes
  - Number of suppliers (This paper!)

- Studying both micro-level decisions, as well as their aggregate implications

  (See: Antràs and Chor (2022) for a broad survey on economic aspects of GVCs.)

This paper (HMPP)

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- Consider a setting with downstream monopolistic competition across final-good firms, and upstream oligopoly among suppliers.

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- Empirical test with firm-level customs data on French and Chilean imports from China:

  Delivers support for the model's implications on the effect of a larger pool of suppliers on prices (unit values). Particularly compelling evidence when looking at the Chile-China matched sample.

Taking stock

- Market power in value chains and production networks is an under-studied topic: A welcome contribution to help plug this gap
  - Theory: Several elegant modeling "tricks" here to derive closed-form expressions for sourcing shares – the share of inputs sourced from each supplier – that make the model tractable
  - Empirics: Efforts to link customs data across countries are rare, but bear a lot of potential to shed light on firm participation in GVCs
- A few suggestions follow.

Comments: Mostly on the Empirics

- Would place a premium on the CHL-CHN matched sample findings:

  Specifications that focus on within-supplier, cross-buyer variation are particularly stringent.

  - Useful here to provide more details on how this match was performed (e.g., firm names?) and the underlying match rate.

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- Are the results stronger:
  - for HS6 products classified as intermediate or capital goods?
  - for HS6 products that are differentiated (Rauch 1999) versus homogeneous?

Comments: Mostly on the Empirics

- Current tests focus on specifications where the number of suppliers is the key independent variable:
  - These examine the effect of the number of potential CHN suppliers (suitably instrumented) on product-level import flows and prices.

  Could instead also look at specifications where firm productivity is the independent variable:
  - Might there be shocks to CHL firms' productivity that could be exploited, to see if this affects the number of suppliers per firm, as well as the input prices?

Comments (cont.)

- An alternative interpretation: Downstream firms may purposefully choose to source from a smaller number of suppliers, for reasons associated with *relational contracting*

  Through repeated interactions, the downstream firm could pay an "efficiency wage" to encourage a select group of suppliers who have developed a good reputation to provide high quality inputs (Cajal-Grossi, Macchiavello and Noguera 2020).

  Suggests controlling for the number of past years in which the downstream firm has purchased inputs from said supplier.

- A line of work at the intersection of trade and development on relational contracting, with interesting findings that speak to the effects of market power in specific value chains:

  Macchiavello and Morjaria (2015); Macchiavello and Miquel-Florensa (2018); Macchiavello and Morjaria (2020).

Conclusion

- A nice contribution to our understanding of how market power plays out in GVCs.

  Already: A neat model, with a rich empirical setting to test these implications

- Look forward to the next iteration: Taking the model in a quantitative direction has the potential to shed light on aggregate implications and policy counterfactuals!