# PARTICIPATION IN GLOBAL VALUE CHAINS: THE IMPACT OF DISTANCE AND NATIONAL TRANSPORTATION SYSTEMS

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# THE PAPER

- **Research Question**: what is the impact of the quality and efficiency of the transportation system of a country on the participation on GVCs?
  - Gravity equation: $GVCpart_{ij,t} = \beta_0' \times X_{ij,t}^{\beta_1'} \times D_{ij,t}^{\beta_2'} \times T_{i,t}^{\beta_3'} \times \varepsilon_{ij,t}$
  - Findings: All coefficients of transportation systems are significant and positive for GVC-related to imports that embed foreign value-added re-exported in other countries.

# GENERAL IMPRESSION

- Overall, interesting application to relevant policy issues: the focus of this paper is on developing a general modeling framework that is well suited to understanding the policy drivers of GVC trade.
- It looks at improvements in the transportation systems as one possible driver of GVC trade.
- The analysis is carefully developed and clear.
- The paper is generally well written, some parts might need some additional clarifications

# MAIN COMMENT (1)

- SECTORAL DIMENSION:
  - The model can be set to allow for trade costs to vary by end-use; that is, trade costs can differ between intermediate and final production.
  - Each model should be estimated by sector, allowing transportation system performance to have different trade impacts at a sectoral level for intermediate and final production.

# MAIN COMMENT (2)

- ESTIMATION ISSUE:
  - "More precisely, the Stata command *ppmlhdfe* developed by Correia et al. (2019) was employed, which allows handling in a computationally efficient way the large number of fixed effects in the gravity equation." p. 12

Why not '*PPML_PANEL_SG*': module to estimate "structural gravity" models via Poisson PML?

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- "Not only the between countries transportation costs matter, but also the quality of the transportation system of the country of origin" p. 13

# ADDITIONAL ELEMENTS: LITERATURE REVIEW

A recently published article

- Shepherd, B. (2022). Modelling global value chains: From trade costs to policy impacts. *The World Economy*, 00, 1–32. https://doi.org/10.1111/twec.13268