# 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: 
$$GVCpart_{ij,t} = \beta'_0 \times X^{\beta'_1}_{ij,t} \times D^{\beta'_2}_{ij,t} \times T^{\beta'_3}_{i,t} \times \varepsilon_{ij,t}$$

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 (I)

#### 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)

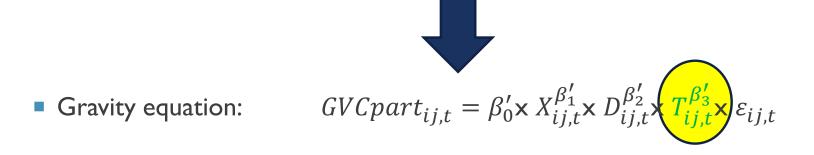
#### ESTIMATION ISSUE:

"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?

### MAIN COMMENT (2)

Gravity equation: 
$$GVCpart_{ij,t} = \beta'_0 \times X^{\beta'_1}_{ij,t} \times D^{\beta'_2}_{ij,t} \times T^{\beta'_3}_{i,t} \times \varepsilon_{ij,t}$$



 "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. <u>https://doi.org/10.1111/twec.13268</u>