Production Networks and the Wealth Distribution

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June 16, 2025
The 7th ChaMP WS2 Workshop in Tallinn

Summary

- Studies how **sectoral linkages** affect **aggregate dynamics** and **wealth inequality**
- Three steps
  - Empirical evidence: within 23 EU countries, larger off-diagonal outsourcing/sectoral concentration $\rightarrow$ lower inequality of liquid assets
  - Model: heterogenous hhs due to idiosyncratic income shock + heterogenous firms by sectors producing goods with inputs of labour and intermediates
  - Calibration for the euro area and for 3 scenarios, main focus on scenario of no production networks
- Main findings
  - Less connected industries $\rightarrow$ higher inequality
- Contribution
  - Innovative model that links **production networks** with **inequality**

Comments: A weak mechanism?

- Remove linkages from the production network
  - $\rightarrow$ real wage increases in all sectors (no intermediate inputs)
  - $\rightarrow$ real interest rate falls
  - $\rightarrow$ hand-to-mouth households do not save, and high-wage households increase savings (cheaper price of future consumption)
- Small change in wealth Gini

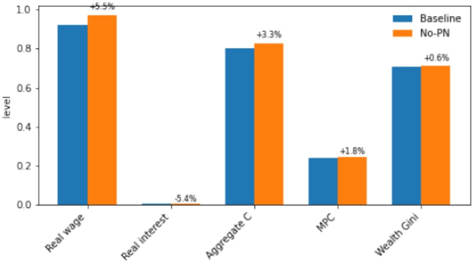

Figure 4: Key steady–state variables: Baseline (blue) vs. 'No-Production Network Intensity' (orange). Numbers above bars show the percentage change relative to the baseline.

Comments: Liquid assets $\neq$ net wealth

- Empirical regularities on wealth inequality
  - Financial assets make up 1/5 of total assets (HFCS, 2021)
  - Financial assets are more unequally distributed than the net wealth (Pfeffer and Waitkus 2021)
  - Main asset classes that affect net wealth inequality are real estate (home) and business assets (Pfeffer and Waitkus 2021, Lindner 2015)
- Can these regularities help to make the mechanism stronger?
  - Why are hand-to-mouth households not saving? Due to illiquid assets: real wages increase $\rightarrow$ more home-owners $\rightarrow$ more wealthy hand-to-mouth households
  - Business assets with heterogeneous returns: positive covariation between household skills and returns from business assets

Comments: I-O table of sectors $\neq$ network of firms

- Empirical regularities on the network of firms
- Disconnecting from production networks may be more costly at the level of the firm
  - B-to-B transactions data show stronger vertical spillovers btw firms than estimates with industry-level I-O tables (Alfaro-Urena et al. 2022)
- The key mechanism at the firm side is the pass-through of higher independence to higher prices
  - Firms' reaction to Covid-19 (Lafrogne-Joussier et al. 2022) and natural disasters (Boehm et al. 2019) shows no price effects of disrupted value chains $\rightarrow$ minor adjustment in prices, majority of adjustment in quantities

Comments: Within vs between country correlation

- The Authors motivate the paper by demonstrating within-country negative correlation btw off-diagonal share in I-O tables and liquid asset inequality
  - 23 EU countries in 2010, 2014, 2017, 2021
- Unlike in the model, the empirical link is sizeable
  - Is the link holding in the cross-section? $\rightarrow$ Would be nice to see the figure
  - Elaborate on the FR vs ES example, alternative explanation is home-ownership rate (FR 58% vs ES 74%)
  - Is the link driven by Covid-19: forced savings due to lockdowns + temporary disruptions in the global value chains (more diversification of intermediates)

Alfaro-Urena, A., I. Manelici, and J. P. Vasquez (2022). The effects of joining multinational supply chains: New evidence from firm-to-firm linkages. *The Quarterly Journal of Economics 137*(3), 1495–1552.

Boehm, C. E., A. Flaaen, and N. Pandalai-Nayar (2019). Input linkages and the transmission of shocks: Firm-level evidence from the 2011 tōhoku earthquake. *Review of Economics and Statistics 101*(1), 60–75.

Lafrogne-Joussier, R., J. Martin, and I. Mejean (2022). Supply shocks in supply chains: Evidence from the early lockdown in china. *IMF Economic Review 71*(1), 170.

Lindner, P. (2015). Factor decomposition of the wealth distribution in the euro area. *Empirica 42*, 291–322.

Pfeffer, F. T. and N. Waitkus (2021). The wealth inequality of nations. *American Sociological Review 86*(4), 567–602.