# Comment on Presentation by Diego Puga

Yukiko Saito, Waseda University and RIETI RIETI BBL Seminar, 2023/3/1

# Summary of the presentation

• The benefit of big city is examined by comparing large city and small city.

At firm level: higher productivity in large/dense city.
 Mechanism? Agglomeration or Selection?
 Compare the shape of productivity distribution to identify the effect.
 → Agglomeration effect is dominant. No differences in extent of selection.

- At worker level: higher earing (earning premium) in large city. Compare the earing evolution by year worked.
- $\rightarrow$  Earning premium in large city becomes larger especially for skilled worker.
- → Learning/accumulation effect is large and sorting effect on ability is small. Why?
- $\rightarrow$  Imperfect assessment of ability and friction of migration can cause it.
- $\rightarrow$  Further mechanism, e.g., the role of network on mobility, is discussed.

# Summary of the presentation

- Tradeoff of cost and benefit: within each city and between large city and small city.
  - Better accessibility vs higher housing cost in the center of city.
  - Higher productivity and earning vs housing and commuting cost in large city.
  - $\rightarrow$  Develop model with this tradeoff, location heterogeneity and planning regulation.
  - $\rightarrow$  Housing price at the edge of city should be higher in bigger city.

- Policy implication
  - What is the implication after COVID? We experienced less commuting cost (working from home) and prevalence of ICT.
  - What is the implication to aging/shrinking society instead of growing economy? In Japan, # of firm is decreasing. Firm's CEO is also aging, and firm exit ratio is correlated with CEO age. (Hong, Ogura, and Saito, 2019)
  - What is policy implications about urban planning from your model?
    For example, what does higher housing price at the edge mean?
    What kind of intervention should be done?

- It is interesting to identify the agglomeration effect and selection effect by comparing shape of productivity distribution between large city and small city. (In the real world, firm exit/selection is not like a truncation (in the model)…)
  - $\rightarrow$  Is it consistent with comparison of firm dynamics? Check each contribution.
  - Sorting (ratio of entrant firm, productivity distribution of entrant firms)
  - Selection (ratio of exiting firms, productivity distribution of exiting firms)
  - Agglomeration (evolution of productivity of incumbent firm)
  - $\rightarrow$  It is also interesting to see the relation with firm age similar to worker's analysis.
  - $\rightarrow$  In Japan, exit ratio is relatively higher in urban area while the ratio itself is small. (Hong, Ogura, and Saito, 2019)

• How do you interpret firm level productivity and establishment level productivity?

→ At firm level, location of headquarter is examined.
 We know that headquarters are more localized than establishments in Japan.
 As for establishment's export status, location of headquarter is more important.
 → Location of headquarter might be important.
 But, local labor market for establishment should also matter.

→ Firms decide how to locate their establishments.
 For example, wholesalers expand their establishments geographically.
 (Distances between headquarters and establishments are long for wholesalers.)
 (Ito, Okamoto, and Saito, 2020)

- Mobility of workers between/within city and firm: Interpretation of earning premium.
  - What is the ratio of workers who change jobs within the same city? Is the year worked in the same city is similar to the year worked in the same firm?
  - What is the ratio of workers who don't change jobs (working for the same firm), but change their residence (working for a different establishment)?

We know that many inventors observed in patent application change their address (working place) within the same firms or between firms with ownership relations or transaction relations. (Saito and Yamauchi, 2015)

#### Reference

Hong, Ogura and Saito (2019), "Structural Change in Firm Dynamics: From Inter-Firm Network and Geospatial Perspectives," RIETI Policy Discussion Paper Series 19 P-031

Ito, Okamoto and Saito (2020), "Intermediaries in Transaction Networks: Location of Wholesalers' Headquarters and Other Establishments," RIETI Discussion Paper Series 20-E-056

Saito and Yamauchi (2015), "Inventors' Mobility and Organizations' Productivity: Evidence from Japanese rare name inventors," RIETI Discussion Paper Series 15-E-128

#### Reference

Hong, Ogura and Saito (2019), "Structural Change in Firm Dynamics: From Inter-Firm Network and Geospatial Perspectives," RIETI Policy Discussion Paper Series 19 P-031



Figure 11. Firm Exit Rates in Urban and Rural Areas Over Time

Note: X-axis represents years and Y-axis represents exit rate.

Figure 6. Exit Rates by CEO Age: by Exit Type



Note: Each bin on the x-axis represents age group of CEOs. Y-axis represents exit rates in percent.