

# Firm-to-Firm Trade: Imports, Exports, and the Labor Market

Comments by: Kim J. Ruhl

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What do we want? What do we need?

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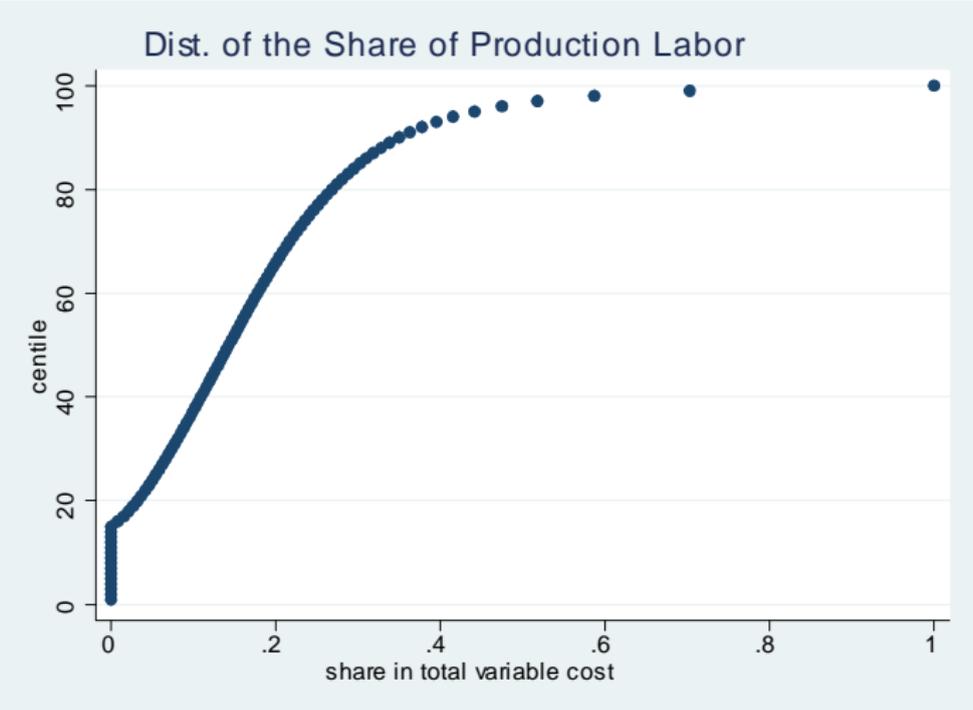
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- ▶ In a model with a lot of heterogeneity
  - ▶ Markets served
  - ▶ Number of clients served in a market
  - ▶ “Productivity”
  - ▶ **Input intensity (int. goods, labor, capital)** (by industry?)

# Production labor shares



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- ▶ Do we need all of this heterogeneity?
  - ▶ Maybe: Observe nonmonotonicity in firm behavior
- ▶ Do we need international trade?
  - ▶ Maybe: It's a way to discipline the heterogeneity

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**Comment:** What does each assumption do?

**Comment:** No link between type of labor and good produced

## Two levels of results

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1. Aggregate labor outcomes
2. Worker- and firm-level labor outcomes

## Aggregate labor market outcomes

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- ▶ Characterized as production cost shares
- ▶ Nice result on aggregate production cost shares
  - ▶ Share depends on wages and goods' prices
  - ▶ Very CES-like result

$$\beta_i^L = \sum_k \beta_i^{L,k} \quad \beta_i^{L,k} = \beta_k \frac{w_{ki}^{-\phi}}{w_{ki}^{-\phi} + (\bar{p}_{ki}/\gamma)^{-\phi}}$$

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- ▶ The Kaldor-Gollin facts?

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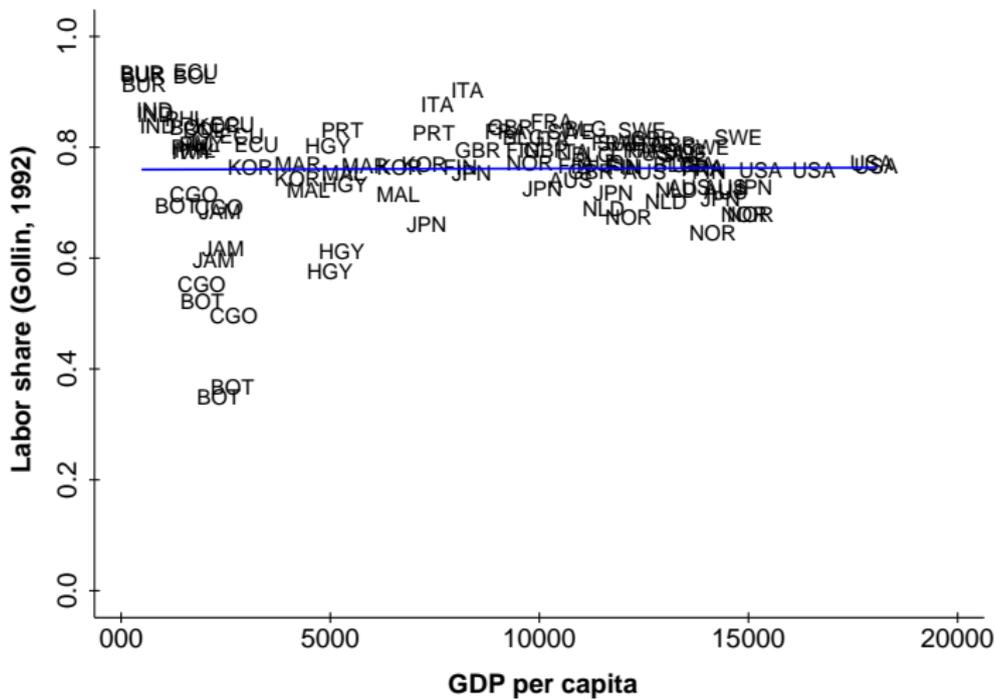
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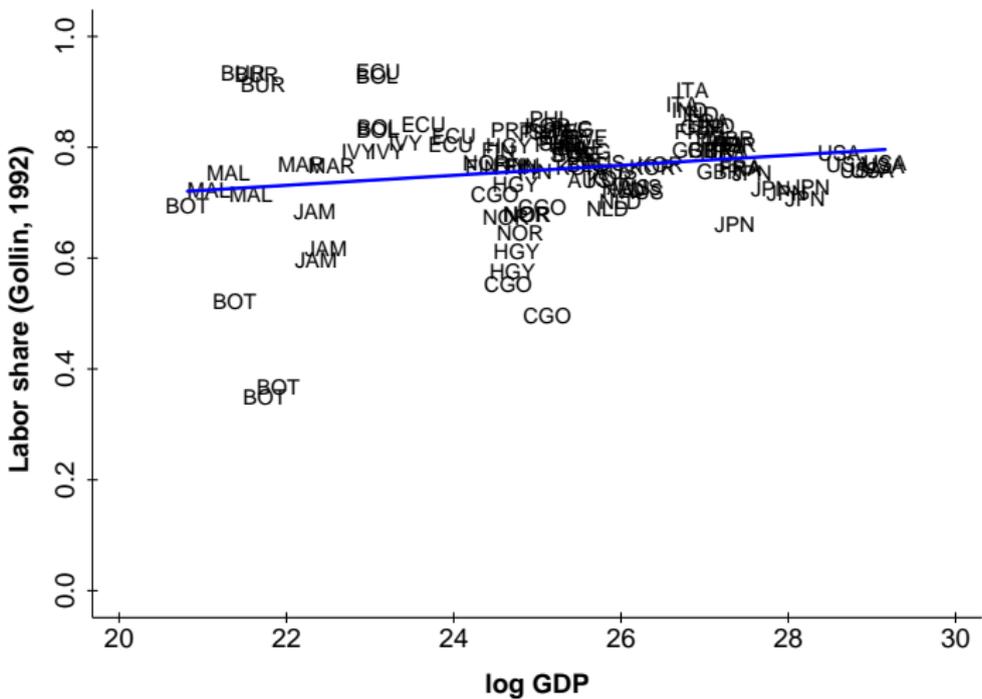
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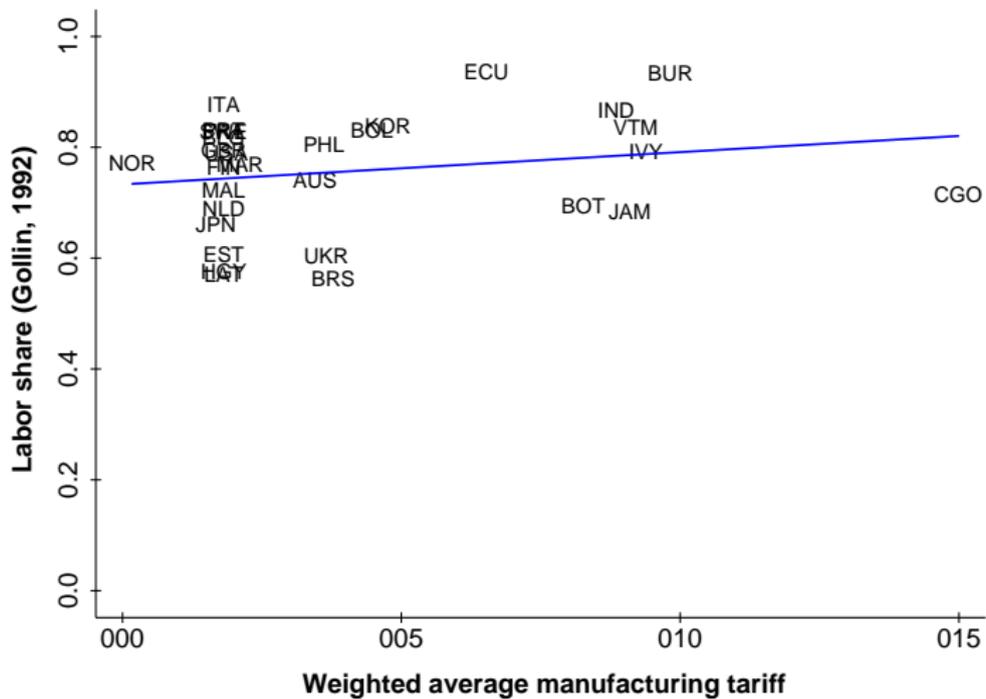
## Export shares and GDP per capita



# Export shares and GDP



## Export shares and tariffs



## Firm- and worker-level labor market outcomes

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- ▶ A model of make vs. buy
- ▶ Key parameter: ability to outsource labor type,  $\lambda$

$$e_{ki}(c) = \lambda_{ki}c^{-\phi}$$

- ▶ For worker outcomes: How easy can a cheap intermediate be found?
  - ▶ Bigger countries
  - ▶ More open countries

**Comment:** Use closed economy to isolate size.

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- ▶ How to discipline this choice?
- ▶ Literature on outsourceability
  - ▶ Jensen and Kletzer; Brandle and Koch
- ▶ Brandle and Koch 2013
  - ▶ German survey data on occupations
  - ▶ Principle components analysis

## Brandle and Kock 2013



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- ▶ Or a LLN result about observed outsourcing
  
- ▶ Missing heterogeneity (what?!)
  - ▶ Heterogeneity in international outsourcing costs
  - ▶ A cheap way to do it:  $d_{ni}^k$