Discussion of

Exports, Imports, and Earnings Inequality: Micro-Data and Macro-Lessons From Ecuador

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Overview

- An extremely ambitious effort to combine hyper-detailed data from a variety of sources with minimal structural assumptions
- Impact of trade (both exports and imports) on factor incomes
- Two channels of trade:
  1. Export: factor services are exported, either as inputs into exported goods or inputs into intermediates of exported goods
  2. Import: access to foreign final or intermediate goods can increase or reduce demand for domestic factors
- Detailed data allows to trace all expenditure shares in a given trade equilibrium, including input-output linkages
- Counterfactual analysis requires the pattern of substitutability
  - no equivalent model-free result here to Sheppard's lemma (as in e.g. Borusyak & Jaravel 2018 for consumer expenditure)

Data

- . . . is phenomenal
  - — Denmark, Belgium and Norway in one (Ecuador)
  - — datasets: firm-to-firm, employer-employee, owner-firm, firm-trade

- Some concerns:
  1. Informal sector: is it merely non-SS employees? grey/black payment schemes?
     - — adjustment to trade in developing countries via informal sector
  2. 4.7M firms and 5.6M employees
     - — lots of low-income entrepreneurs (self-employed), who seem to be heavily export exposed via capital income? (Figure 4)

- What is this data best for:
  1. proof of concept?
  2. detailed analysis of Ecuador?
  3. general mechanisms with external validity?

Parametrization/Structure

- Highly parametrized environment (e.g., firm-level input-ouput matrix with idiosyncratic expenditure weights)
  - perfect match of the current-equilibrium expenditure shares
  - over-parametrization? less of a concern for decompositions, more of a concern for counterfactuals
- Only three aggregate structural elasticities of substitution
  - across factors, η
  - across domestic firms, σ
  - between domestic and foreign inputs, ε
  - everything else is Cobb-Douglas w/flexible expenditure weights
- Factors:
  1. Capital (firm) ownership at the household-firm level
  2. Labor: 3 educational groups $\times$ 24 regions
     - why education$\times$region defines a suitable factor for a long-run global (trade-to-autarky) analysis?
     - mobility across occupations/jobs/sectors/regions/education
     - income heterogeneity within factor bins?

Identification

- Just three elasticities!
- Very low elasticity estimates, especially of $\sigma = 1.37$ (between domestic products), and also $\varepsilon = 1.1$ (home vs foreign inputs)
  - — low for trade, not unusual for macro
  - — how far from Cobb-Douglas?
- Concerns:
  1. Validity of import-intensity instrument
     - — tradeoff between power and exogeneity
  2. Misspecification 1: strategic complementarities in price setting
     - — affects only first stage of IV?
  3. Misspecification 2: "double"-marginalization from supplier to final consumer
     - — attenuates estimated elasticities to border prices
- Alternative approach: find $(\eta, \varepsilon, \sigma)$ that maximize fit in decomposition in Table 2?

Counterfacruals

- Can one start with a decomposition or a local counterfactual?
- Short-run vs medium-run vs long-run counterfactual?
  - elasticities estimated locally + Cobb-Douglas assumptions
  - endogenous supply of factors
- Is there a sense of explained vs unexplained variation in incomes (across vs within factor bins)?
  - alternative slicing of factor bins (e.g., by income instead of education)
  - test competitive factor model against an alternative