International Trade and Inclusive Growth: A Primer for Busy Policy Analysts

Daniel Lederman
World Bank
International Trade Department

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Trade Can Promote Inclusive Growth

- Expands some economic activities but brings competitive pressures on others by affecting long-run relative prices (?)

- IG is like an “elephant”
  - Many definitions rely on contrasts: e.g., IG is not “pro-poor growth”
  - Ianchovichina and Lundstrom (2009): IG has a “distinct character focusing on both the pace and pattern of growth” (page 1); “productive employment rather than income redistribution”; and “IG has not only the firm, but also the individual as the subject of analysis” (Box 1, page 4).

- We provide two frameworks for future analyses: viewpoints of households and firms
From Frameworks to Analytical and Policy Challenges: Messages

- Trade’s contribution depends on behavioral responses to market signals: “second-order” effects rule!
  - Households: changes in sources of income and consumption
  - Firms: changes in product mix and changes in sources of inputs

- Analytical challenges
  - Micro data requirements: Incomes-consumption HH surveys and firm surveys with data on product mix and integration
  - Complexities in the estimation of HH and firm responses

- Policies beyond trade reforms
  - Labor mobility costs and skills
  - Support private product innovation and technology adoption (?)
Households (and Workers)

- Extensive literature on trade, inequality and poverty:
  - Reviews by Winters et al. (2004); Pavcnik and Goldberg (2007); Harrison, McMillan and McClaren (2011)
  - Ambiguity rules! Role of initial conditions prior to trade reforms and adjustments across and within industries
  - Most studies actually do focus on the long-run and market wages and inequality (excluding public transfers)
  - Central role of returns to schooling/skill premium (!)
Our framework rooted in rural household behavioral models (e.g., Singh, Squire and Strauss 1986) and used by Winters et al. (2004) to organize their literature review on trade and poverty.

Basic idea: HH’s welfare depends on net income across all income sources and goods.

- Trade reforms and long-term
Households (and Workers): Framework

• First order effects (from Winters et al. 2004)

\[
\Delta W = \sum_j (q_j - c_j) \Delta p_j
\]

• Good examples of framework applied to the effects of food prices hikes (temporary?): Wodon et al. (2008) and Ferreira et al. (2011)
  • Key: acknowledge that not considered second-order effects
  • Some analysis of wage responses in Ferreira et al.
Households (and Workers): Policy Issues

- Changing incomes sources
  - Worker mobility costs (across sectors incl. in-out of informality, firms, territories)
  - Some recent progress: Artuc et al. (2010); Artuc and McClaren (2010) in Porto and Hoekman, editors
  - Rory’s cotton farmers switching to maize
  - The potentially important role of skills

- Changing consumption patterns
  - Note that rarely we look at first order effects of trade reforms
First-Order Effects of Trade Reforms Are Probably Pro-Poor (but not necessarily pro-IG)

Figure 1. Tradable Consumption Shares across Income Deciles in Brazil, 2003

Household Data: Income Consumption Surveys

- About 119 countries in the World Bank’s Development Data Platform (DDP)
- Quite a few with multiple years
- Analytical challenges
  - Need to estimate HH responses to prices, often with cross sectional data (or repeated cross sections); few panels
  - Issues related to measurement of prices versus unit values
Firms: Framework

• Focuses on profit incentives, but mimics HH welfare framework

\[ \pi = \sum_j (p_j - a*r)q_j \]

• The first-order effects of a trade-driven price change:

\[ \Delta \pi = \sum_j \Delta p_j q_j \]
Firms: The Weakness of First-Order Effects

- Lack of behavioral responses!
- Need to understand determinants of product innovation (or product switching)
- Need to understand choices of inputs and technology adoption

\[ \Delta \pi = \sum_j \Delta p_j * q_j + \Delta q_j * p_j - \Delta r * a * q_j - \Delta a * r * q_j \]
Firms: Framework and Its Challenges

- **Data constraint (?)**
  - The World Bank’s Enterprise Surveys
  - Over 100 countries with data since 2000 on firms’ product innovation, industries, input composition (foreign versus domestic), exports, and foreign ownership

- **Analytical challenges**
  - Relating firm size to product and input choices
  - Selectivity biases
## Firms: Analytical Challenges, Size and Selection Bias

Table 3. Probability of Reporting Trade Integration Data and Firm Size

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Clustered standard errors by country in parentheses

*** p<0.01, ** p<0.05, * p<0.1
Firms: The Estimated Relationship between Firm Size and Firms’ Global Integration
Concluding Remarks on the Future of the Trade-IG Agenda

- On households
  - Changing income and consumption patterns might be key
  - Data constraint might not be dire
  - But estimation and technical challenges with imperfect data will remain: no easy short-cuts
  - Key policy areas: mobility and skills

- On firms
  - Size as a determinant of integration
  - Policies for promoting product innovation and adoption

- Overall optimism about a viable analytical agenda!