International Trade, Firms and Jobs: Perspectives from Emerging Economies

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The majority perceives aggregate benefits from trade

Source: Pavcnik (2017), based on 2014 Pew Global Attitudes Survey and WDI.
Less agreement on trade’s impact on livelihood of workers

Trade and Labor Markets: Old Ideas

• Economists have long predicted that international trade generates winners and losers in developing and developed countries alike.

• Most economic models of international trade, even the ones without any frictions in labor or credit markets, such as the Hecksher-Ohlin model (HO), predict changes in the income distribution with trade-induced changes in prices.

• In a simple version of the HO model, trade was predicted to benefit the less educated and hurt the more educated in developing countries.
  o Generates aggregate gains
  o Simultaneously reduces poverty and inequality

• Cumulative evidence based on 25 years of research on the effects of trade on labor markets in developing countries is more nuanced.
Expansion of global trade
Evidence based on Four Decades of Trade Integration

- Many large-scale trade liberalizations implemented in developing countries or their trading partners since the 1980s and the integration of China

- Policy changes ranged from import liberalization to increased access to export markets
  - how increased trade—through exporting and importing—has shaped earnings & employment
  - Most studies in developed countries focus on importing

- Data on firms, workers, hhs

Source: Pavcnik (2017), based on WDI data
Trade and Labor Markets: The News is the Evidence

• Increased international trade is not the main reason for increased wage inequality in developing countries (Goldberg and Pavcnik 2007, Helpman 2016, Pavcnik 2017)

• But trade policy matters for employment opportunity and worker earnings, poverty, and inequality
#1: Worker Firm Affiliation Matters

- Firms differ in performance within narrowly defined industries
- Better-performing firms tend to pay more (fair wages, efficiency wages, profit sharing)
- Better-performing firms are better positioned to withstand and adjust to import competition and to take advantage of exporting opportunities
- International trade exacerbates the initial earnings differences for workers across better and worse performing firms
Worker Firm Affiliation Matters, as does Worker Education

- Declines in industry employment from import competition are concentrated in less-productive firms (Menezes-Filho and Muendler 2011)

- Exporting increases wage inequality between firms in an industry
  - Better-performing firms tend to pay more
  - Exporting further increases the relative wages of workers employed in these firms (Yeaple 2005, Bustos 2011a, 2011b, Verhoogen 2008)

- Exporting increases the wage gap between more and less educated workers within firms
  - Consumers in high-income countries demand high-quality products
  - Production & marketing of high-quality requires skill (Verhoogen 2008, Brambilla, Lederman, Porto 2012)
#2 Link between trade and informality matters

- Informal employment is large even within manufacturing

- Employment in informal/unregistered manufacturing
  - 70 percent of manuf. workers in Brazil (Dix-Carneiro and Kovak 2017)
  - 80 percent of manufacturing workers in India (Nataraj 2011)
  - 66 percent of manufacturing workers in Vietnam (McCaig and Pavcnik 2015)

- Less educated workers are more likely to work in informal sector (Goldberg and Pavcnik 2003, Gollin (2008), La Porta and Shleifer (2008), de Melo, McKenzie, Woodruff (2010, 2014), McCaig and Pavcnik 2015)
Informal sector accounts for a large share of employment in developing countries.

- International trade can contribute to economic development if it promotes reallocation of workers out of agriculture and out of microenterprises to formal firms.

Source: La Porta and Shleifer (2014)
China’s WTO Accession and Moving out of Agriculture

Composition of Employment

WTO accession reduces uncertainty about U.S. trade policy

NTR Gap by county: local exposure to tariff uncertainty prior to 2001

Source: Erten and Leight (2021)
China’s WTO Accession and Moving out of Agriculture

- Counties in China more exposed to the reductions in U.S. tariff uncertainty experience relative
  - Increase in exports and FDI
  - Expansion of employment in manufacturing and mining
  - Contracting of employment and investment in agricultural sector
  - Increase in total and per capita GDP

Source: Erten and Leight (2021)
Informal sector plays a role in the adjustment to trade

- The 2001 U.S. Vietnam Bilateral Trade Agreement reduced import taxes on Vietnamese exports to the U.S.
- Theory predicts that U.S. import tariffs are more binding for better performing firms in Vietnam
- Reductions in these tariffs provide an impetus for job expansion in the formal sector (economy-wide and within manufacturing)

Growth in exports to the US as a share of total VN exports

- Overall: 5.1% in 2000 to 20.2% in 2004
- Manufacturing: <5% to 25%

Source: McCaig and Pavcnik 2018
Microenterprise employment declines with export liberalization: manufacturing

- Avg. tariff decline 30.3 pct. point → 4.7 pct point decline in informality
- Within manufacturing, lower export costs reallocated 4.9% of workers (about 207,000) to the formal sector in the 2 years after the agreement
Important to consider the effects of trade policy on informality

• General labor market effects of export opportunities matter
  
  o Exporting influences labor market outcomes of workers beyond workers employed in formal manufacturing
  o Export opportunities promote the reallocation of workers out of microenterprises to the formal firms
  o Export opportunities increase wages in local labor markets (McCaig (2011))

• Shift from informal to formal firms changes how worker is attached to the labor market
  
  o Work longer & more regular hours
  o Less likely to hold multiple jobs
  o Higher earnings, more likely to receive benefits
  o Stable jobs are characteristic of a middle-class (Banerjee and Duflo 2007)
#3: Trade has Geographically Concentrated Effects

- Effects of trade on earnings and employment are geographically concentrated and unequal within a country, depending on the region’s exposure to import and export shocks
  - Individuals in regions with a high concentration of industries benefiting from lower export costs fare better than individuals in less exposed regions
  - Individuals in regions with high concentration of industries subject to import competition fare worse than individuals in less exposed regions

- In part driven by imperfect inter-regional worker mobility, especially lack of outmigration even 5-9 years after large adverse trade shocks.

Concentrated benefits: Vietnam’s Export Liberalization

• The 2001 U.S.–Vietnam Bilateral Trade Agreement: Exporting to the U.S. becomes cheaper

• Aggregate poverty declining in Vietnam during this time period

• Individuals in provinces with a high concentration of exporting industries experience relatively larger
  ○ Increases in wages (especially for less educated workers)
  ○ Reallocation out of microenterprises to the formal sector
  ○ Declines in household poverty
  ○ In-migration from other provinces

• Young population and higher education might have aided the reallocation
  ○ Younger and more educated face lower adjustment costs (Dix-Carneiro 2014)

Source: McCaig 2011, McCaig and Pavcnik 2018
Concentrated losses: India’s 1991 Import Liberalization

- India’s 1991 reform reduced import barriers

- Aggregate poverty in India declining during this time period

- Families living in harder-hit districts experience relative
  - Declines in industry wages, declines in agricultural wages
  - Increases in poverty

- Low inter-district mobility for employment 9 years after onset of reform
  - Less that 1% of rural individuals move within 10 years (less than 5% urban)
  - People do not out-migrate from hard-hit regions
  - Mobility particularly low for the poor
  - Rigid labor market regulation (Topalova 2010) and reliance on informal social networks within castes generates a disincentive to move away (Munshi and Rosenzweig 2016)

Source: Topalova 2007, 2010
#4: Trade has long-lasting inter-generational consequences

- Trade’s adverse impact on local labor markets can have longer-lasting effects through children’s schooling/child labor

- Trade affects schooling/child labor through family income (Edmonds and Pavcnik 2005; Edmonds, Pavcnik, Topalova (2009, 2010))

- Indian families in hard-hit regions experienced a relative negative income shock after 1991 import liberalization (Edmonds, Pavcnik, Topalova (2009, 2010))

- School-age children, especially girls, in families living in harder-hit districts experience relative
  - Declines in school attendance
  - Declines in school completion rates and literacy
  - Declines in life-long income

- Families at subsistence are saving on schooling costs
#4: The adverse effects of import competition are persistent and can amplify with time

- Brazil’s domestic import liberalization in early 1990s

- Using matched employee-employer data that covers formal sector (and Census of Population that includes informal workers), can follow individual workers 20 years after trade liberalization

- Adverse effects on relative earnings and employment are magnified over time in the formal sector

- Lack of mobility across regions
- Negative agglomeration economies

Source: Dix-Carneiro and Kovak (2017)
Slow adjustment of capital

Source: Dix-Carneiro and Kovak, 2017
Informal sector matters in adjustment to import competition

- Matched employee-employer data (only formal workers in formal firms) and Population Census (formal & informal workers)

- Expansion of informal employment is an important margin of adjustment in the medium and long-run (i.e. 10-20 years) response to job loss from import competition

Source: Dix-Carneiro and Kovak, 2017 & forthcoming
Informal sector matters in adjustment to import competition

- Trade-displaced workers spend time unemployed or out of the labor force, but eventually find re-employment in the informal sector.
- The informal sector seems to partly smooth the labor market outcomes of trade displaced workers.
- Without this fall-back sector, trade-displaced workers would likely have experienced even longer non-employment spells.

Source: Dix-Carneiro and Kovak, 2017 & forthcoming
Firm entry matters: foreign and private domestic firms in registered manufacturing in Vietnam

![Graph showing manufacturing employment (k workers) from 2000 to 2017 for SOEs, FIEs, and PRIs.]

- **SOEs** (red bars)
- **FIEs** (blue bars)
- **PRIs** (green bars)
U.S. Tariff cuts expand employment of entering firms in VN, decline in continuing and exiting firms

Entry response is particularly pronounced.

U.S. tariff-cut induced foreign firm entry to VN is an important driver of employment growth in VN.

The figure shows the estimated cumulative effect of U.S. industry tariff cuts on industry employment shares in foreign entrants, foreign incumbents, and foreign firms that exit. The reported number for each year is the cumulative effect relative to 2001.
Conclusions

• Important to consider the effects of trade policy on informality when studying the effects of trade in lower-income countries

• Employment losses from import competition are concerning

• Geographically concentrated gains and losses from international trade
  o Geographically concentrated losses that are persistent over time particularly concerning
  o Lack of adjustment of displaced workers, even 10-20 years following the initial trade policy change
  o Labor market consequences have spillovers to other community outcomes, including education of next generation
Conclusions

- Effects of Trade on Labor Markets are Context Specific

- The answers to the questions “Is trade good for the poor?” and “Does trade increase inequality?” depend on
  - Type of changes in trade policy or trade patterns & economic mechanisms
  - Mobility of workers and capital across firms, industries, and locations
  - Position of affected individuals in the income distribution of a country