Trade and Employment

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Stylized Facts

• Trade been growing faster than GDP for decades
• Increasingly intra-industry, differentiated products
• Since mid 1980s, FDI been expanding rapidly also
• Services becoming more traded—”business processing”, medical (mode 4), etc.
• Trade is a driver of growth, but also transmitter of shocks: 2008-2009!
• Unskilled labor has seen relative returns fall in OECD—the “skill” premium rising
• Same in developing counties—increasing inequality
Trade has been expanding steadily as a share of GDP—with some volatility.
One driver: Liberalization

MFN Applied Tariff Rates versus GDP per Capita

GDP per capita (US dollars)

Tariffs (%)

1980s 1990s 2000s

1980s 1990s 2000s
Technology (ICT + lower transport costs)
Global fragmentation/supply chains

Vertical specialization
Trade and national income distribution

Unit of observation: country (over long period)
Openness and employment

• Overall employment is determined by macro-economic variables and labor market-related institutions

• Implication: trade and trade shocks will not affect level of employment in long run (it will affect sectoral composition and wages of workers with different skill levels)

• But we don’t live in the long run: there are adjustment and search costs; macro shocks; global shocks

• May have long-term effects for those who lose jobs—there are distributional effects
  – Those that had the most protected jobs or were highly dependent on a specific employer/activity may lose the most
Openness and labor outcomes

- Evidence suggests trade boosts employment through various channels: export expansion; inward FDI (technology) and capital accumulation
- This raises wages (marginal product of labor)
- Exporters/foreign investors tend to pay higher wages
- A large literature suggests that trade reforms often do not result in large inter-sectoral labor reallocation
- Do see lot of intra-industry turnover, with more productive firms expanding
Gains from trade come from the reallocation of resources (factors of production) from relatively low to high productivity sectors. If this does not happen trade openness may not benefit country (Bolaky/Freund, JDE 2008).
Analyses of Impact of Trade …

- On OECD: focus on openness (rise in trade/GDP ratio) and expanding role of developing countries ("are wages set in Beijing?")
  - Problem: this generally was small through early 2000s
- On developing countries: similar focus/concern, but more attention on liberalization episodes—impacts of reforms
  - Latter is better in terms of "identification" of effects
Methodologies: “trade types”

- Use a general equilibrium approach: assess product and factor markets
- Focus on the Stolper-Samuelson theorem:
  - An increase in the relative price of a good increases the wage of the factors that are used intensively to produce it, and reduces the wage of factors that are not used intensively (or, if wages are rigid, creates unemployment)
- Implication: greater openness should result in a fall in relative prices of goods in which poor countries have a comparative advantage (unskilled labor intensive)
- And, should see unskilled labor intensity of production across all sectors in rich nations increase (as wages fall) and decrease in developing countries
- None of this is observed: trade cannot explain stylized facts
Methodologies: “labor types”

• Use a partial equilibrium approach: Estimate labor demand functions taking into account effect of import penetration/trade dependence, technology measures and labor market institutions

• Conclusion: trade plays a small role in determining labor market outcomes, although wages/employment of unskilled are affected

• Main conclusion: skill-biased technical change dominates
  – All activities are becoming more skill intensive
So is trade irrelevant? No.

• Trade and technology are clearly related
  – Trade increases competition and incentives to improve productivity/innovate—so invest
  – Trade involves embodied technology (machinery) & disembodied knowledge (licensing)

• And trade can generate large shocks that impact on labor markets
  – Affecting wages or employment depending on labor institutions, capital markets and social policies
Recent crisis

• ILO: An additional 30 million unemployed worldwide compared to 2007

• In (middle-income) developing countries greater impact on quality of employment—decline in hours worked; falling wages (especially for women); expansion of informality

• Reduction in industrial employment; expansion of services and agriculture
Improvements in analytical approaches

- Underlying assumptions used by “trade types” are not realistic: homogenous goods; identical firms in a sector; perfect competition, free internal labor mobility; no international labor mobility
- Result in prediction that trade should redistribute employment from import substituting to export sectors and generate inter-sectoral specialization
- Instead we see intra-industry specialization (supply chains) and trade in similar products between similar countries—leading to intra-industry adjustments
Recognize imperfect competition

• More recent research recognizes that firms within industries are heterogeneous: that is, efficiency and productivity differs across firms
• Prices may be (far) above average costs, especially if protected
  – Not just trade barriers, but entry/exit barriers
• Incumbent firms will earn rents that will be shared between capital and labor
• Greater trade results in less productive firms downsizing, and more productive ones expanding
  – Large firms tend to more productive so net employment often grows
  – Exporters tend to be more productive and larger
• Explains why much of the adjustment is within sectors
Trade/Growth/Poverty Reduction Challenges

• Managing volatility/shocks
  – Active labor market policies (constrained by dual labor markets—informality); safety nets (cash transfer programs)
  – Diversification

• Make benefits of trade more inclusive
  – Improve connectivity to markets; help overcome constraints that prevent exploitation of trade opportunities (finance; know-how; transport; standards, etc.)

• Expand the “extensive margin” of trade:
  – New export markets for existing products; exports of new products
  – This what generates higher productivity; raises wages; increases employment
Diversification of exports

Number of products exported (6-digit HS)

<table>
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<tr>
<th>Region</th>
<th>2006</th>
<th>1991</th>
<th>80%</th>
<th>186%</th>
<th>133%</th>
<th>419%</th>
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<tbody>
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<td>South Asia</td>
<td>2006</td>
<td>1991</td>
<td></td>
<td></td>
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<tr>
<td>MENA</td>
<td>2006</td>
<td>1991</td>
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<tr>
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<td>2006</td>
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<tr>
<td>Africa</td>
<td>2006</td>
<td>1991</td>
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Diversification across products and markets

Theil index on Products
Theil index on Market

Increase in Diversification (%): inverse of the decrease in Theil index for concentration

Africa | East Asia | MENA | South Asia
1 year export survival rates

- KEN: 35%
- MLI: 46%
- MUS: 27%
- MWI: 19%
- SEN: 40%
- TZA: 38%
- CHL: 38%
- COL: 33%
- CRI: 45%
- DOM: 38%
- ECU: 38%
- PER: 44%

Africa

Latin America
Readings/sources:
