

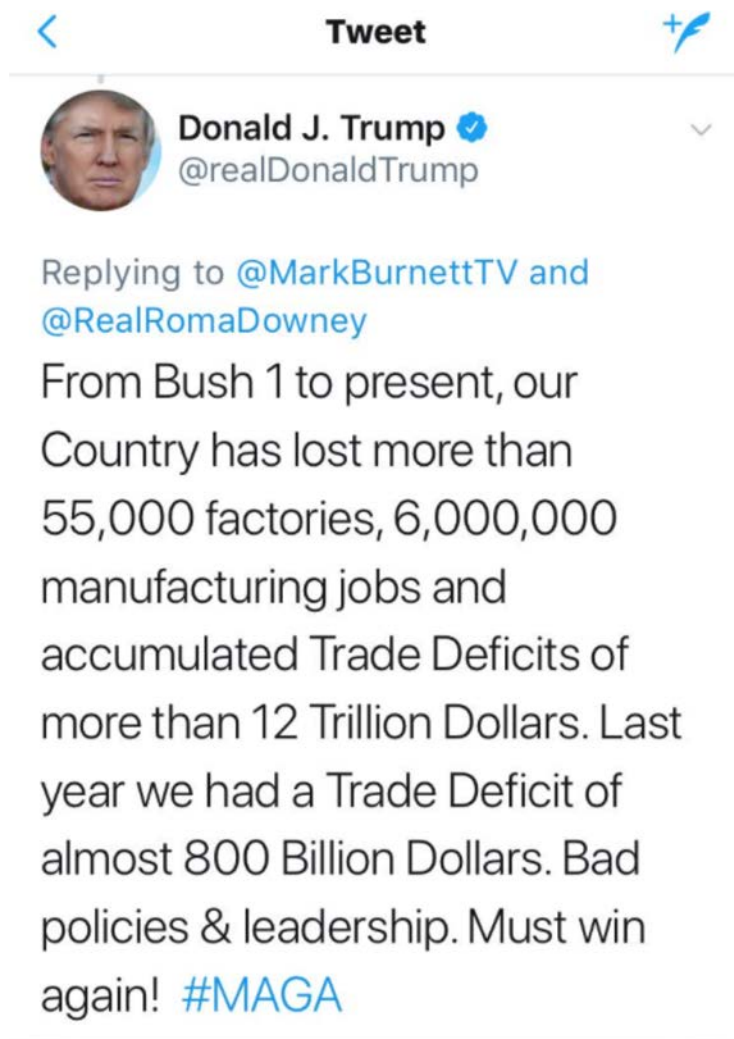
The Effects of Trade Policy: A Global Perspective

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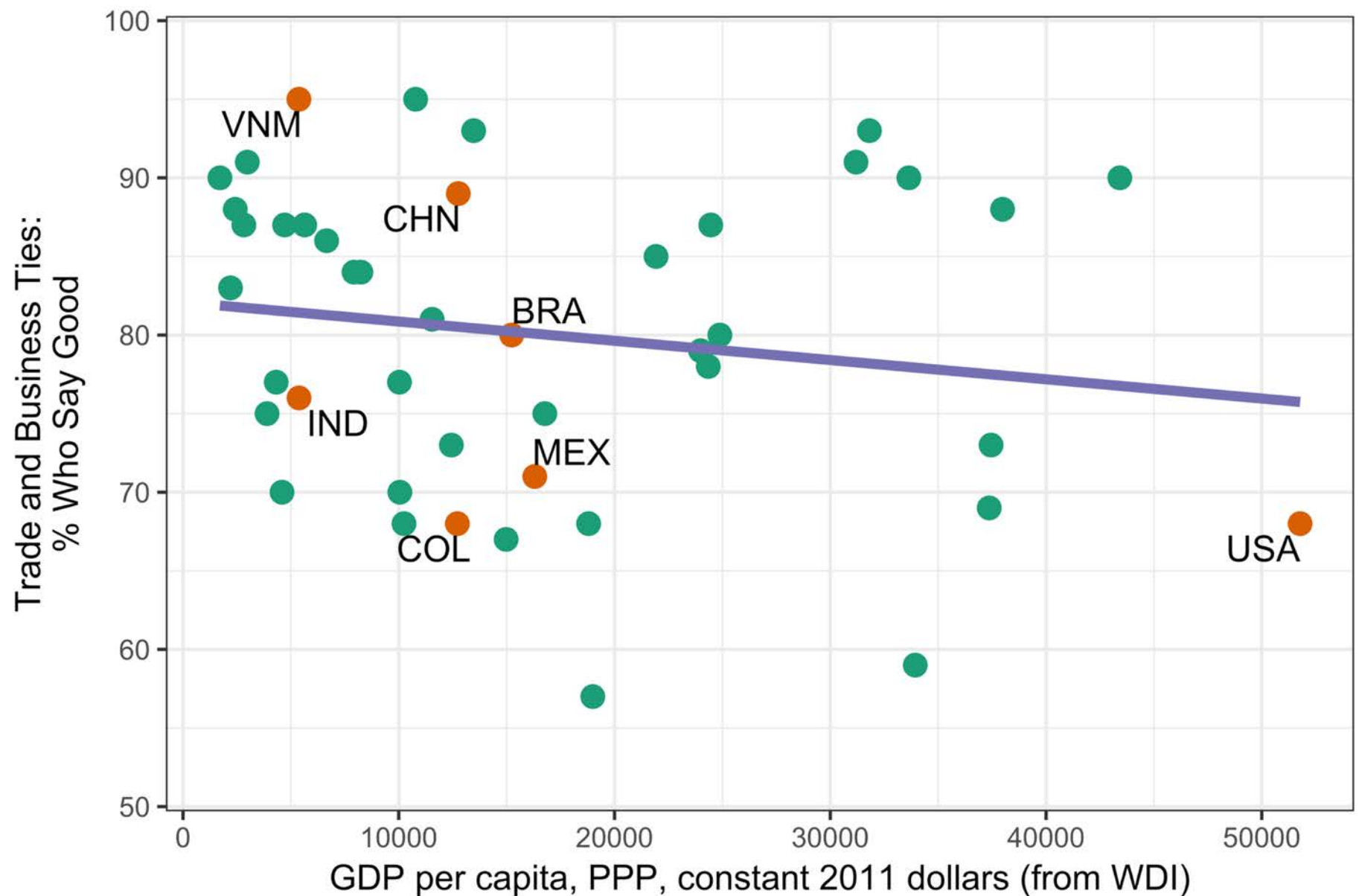
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Public Backlash against International Trade



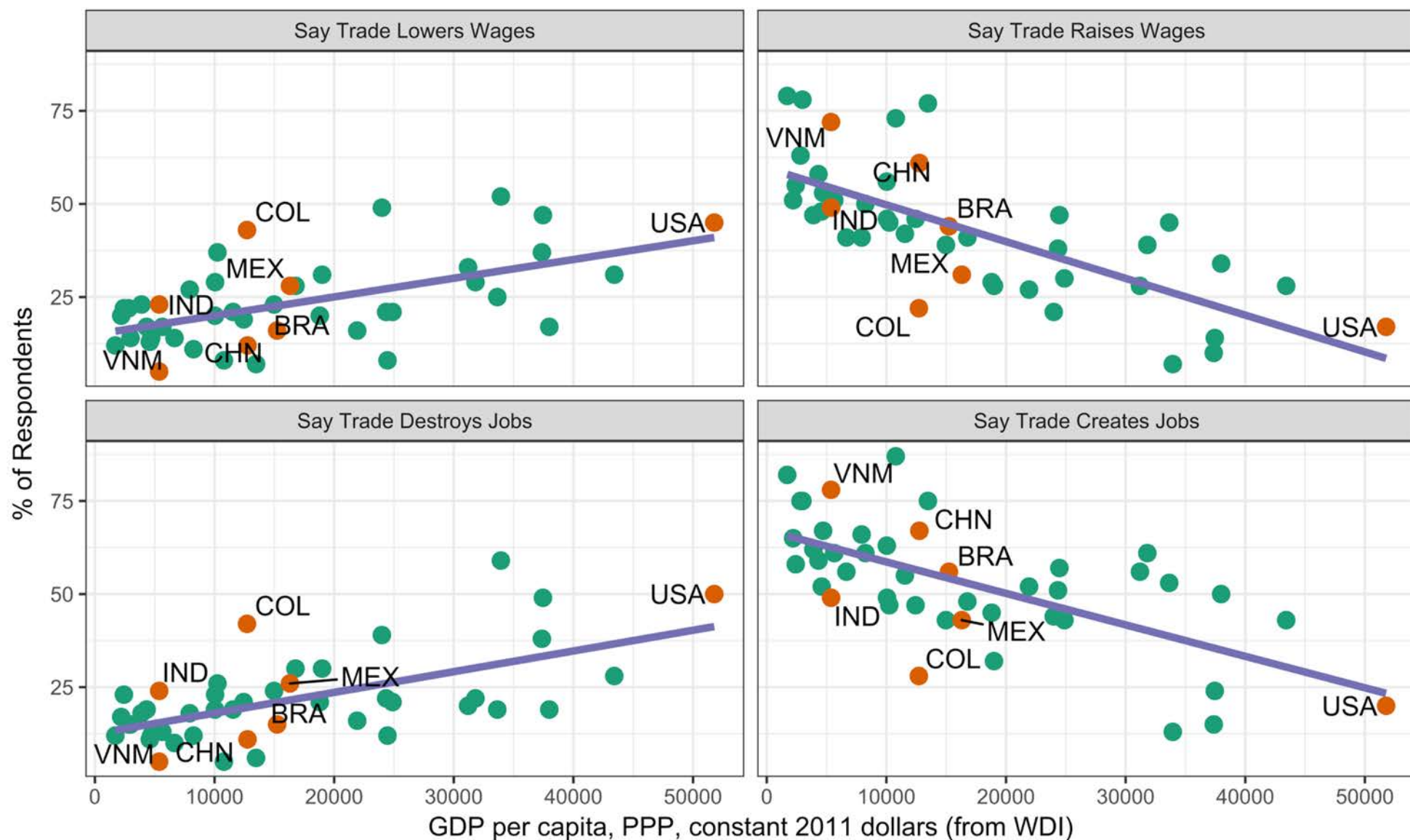
- Renewed demands for protectionism in high-income countries
- Economist emphasize that international trade raises a nation's aggregate welfare
- But roots of the anti-trade backlash do not lie in public's misconceptions about aggregate gains from international trade

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



Source: Pavcnik (2017), 2014 Pew Global Attitudes Survey

Implications for research

- Questions regarding distributional consequences of trade and trade policy important and first-order for public perception of trade
 - Public perceptions of costs and benefits of trade and trade policy are at odds with academic research: trade policy matters
 - These perceptions affect future trade policy
 - Trade policy does not matter (Goldberg and Pavcnik (2016))
 - Academic literature that focuses on aggregate effects of trade policy finds small effects
 - Trade policy has been significantly liberalized
 - Trade policy has "no bite" –result rather than cause of change in trade environment (Rose (2004))
- How do we make academic research in trade more relevant to the concerns about trade of the public and policy makers?

Implications for research

- Why are distributional consequences of trade relevant for researchers that primarily focus on firms, (trade) and development?
 - Better understanding of specific mechanisms through which trade affects various firm level outcomes of interest and their broader consequences
 - Some of the consequences of trade policy missed if research focused solely on outcomes in registered manufacturing firms in isolation

Tradition of trade & development economists working together (1980)

Trade and Employment in Developing Countries

1 Individual Studies

Edited by
Anne O. Krueger,
Hal B. Lary, Terry Monson,
Narongchai Akrasanee



Trade and Employment in Developing Countries

2 Factor Supply and Substitution

Edited by
Anne O. Krueger



Trade and Employment in Developing Countries

3 Synthesis and Conclusions

Anne O. Krueger



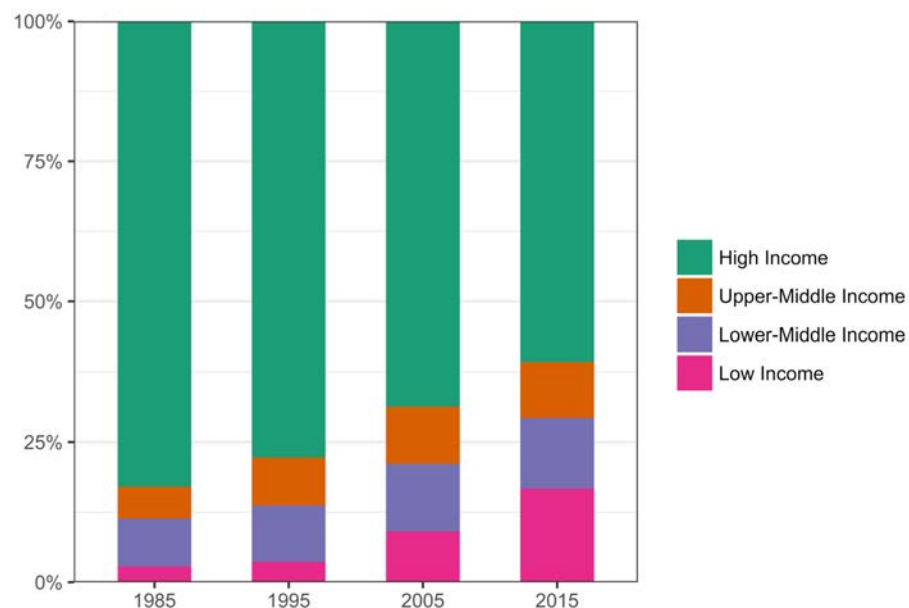
Krueger's (1984) Handbook I Conclusion

“A survey of the trade and development literature ten years hence will surely focus more on the properties of transition paths [i.e., how to move away from severe domestic and trade distortions], and less on considering the welfare implications of protection, than is currently possible”

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 Heckscher-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
 - Generates aggregate gains
 - 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

Evidence based on Four Decades of Trade Integration



Percentage of world exports by 1987 WB income group

Source: Pavcnik (2017), based on WDI data

- Many large-scale trade liberalizations implemented by developing countries or by their trading partners since the 1980s and the integration of China
- Policy changes ranged from import liberalization to increased access to export markets
 - settings to study how increased trade —through exporting and importing--has shaped earnings and employment in developing countries
 - Most studies in developed countries focus on importing shocks.

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, 2017, Helpman 2016)
- But trade policy matters for worker earnings, employment opportunities, poverty, and inequality
- 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

#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

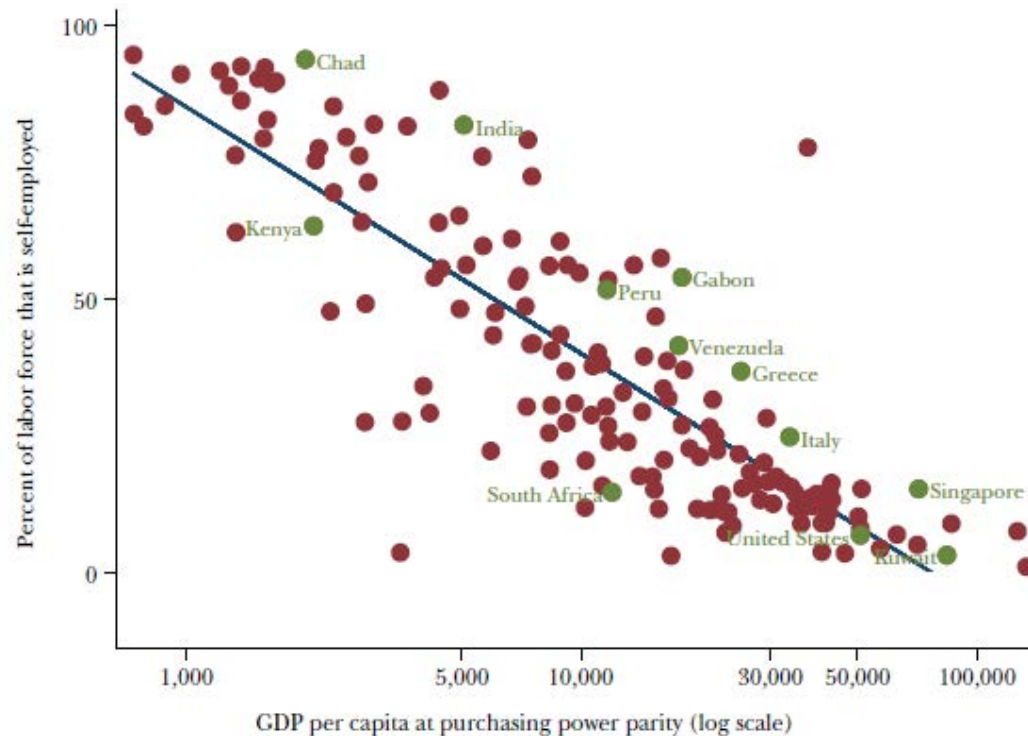
- Declines in industry employment from import competition are concentrated in less-productive firms (Menezes-Filho and Muendler 2011)
- Exporting increases wage inequality between firms in an industry
 - Better-performing firms tend to pay more
 - Exporting further increases the relative wages of workers 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)

Focus solely on workers in registered manufacturing firms

- Benefit: Simultaneously show how firms are adjusting production and how this affects workers.
- But workers that lose employment in this process are not observed after the loss of employment.
- Data representative of formal registered firms in manufacturing (or medium and large publicly listed firms)
 - 70 percent of manuf. workers in Brazil (Dix-Carneiro and Kovak 2017)
 - 20 percent of manufacturing workers in India (Nataraj 2011)
 - 42 percent in Vietnam (McCaig and Pavcnik 2015)
- more educated workers are more likely to select into formal sector (Goldberg and Pavcnik 2003, McCaig and Pavcnik 2015)

Looking beyond formal registered firms in manufacturing

Self-Employment and GDP per Capita in 2013

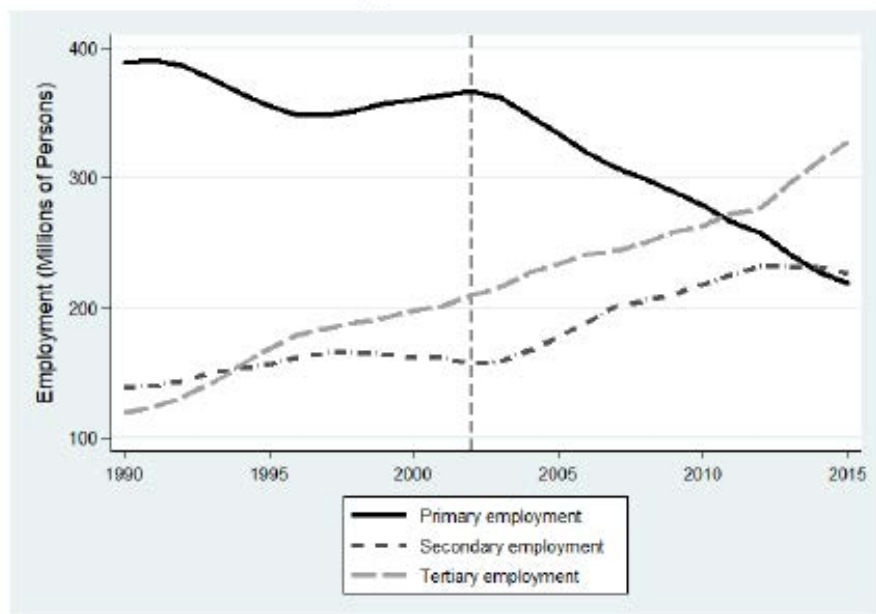


Source: World Development Indicators. See online Appendix for countries.

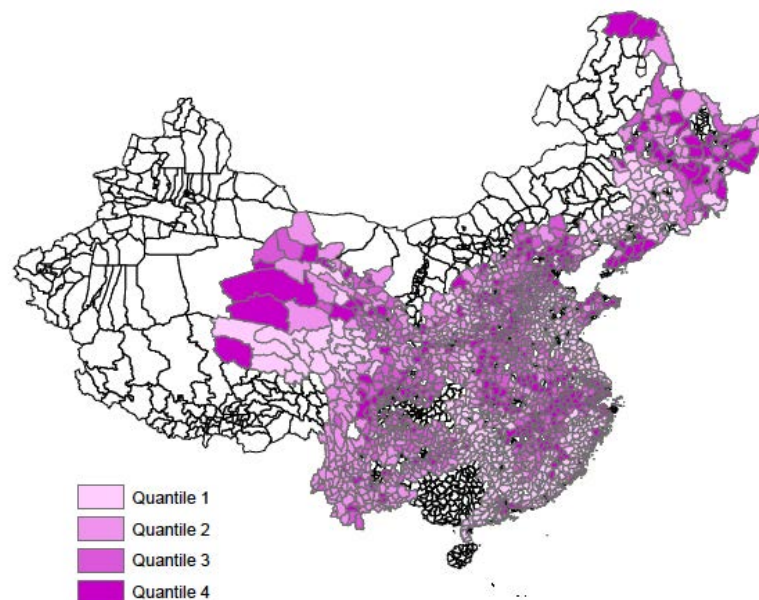
- Informal sector accounts for a large share of employment in d-ing countries
- International trade can contribute to economic development and poverty reduction if it promotes reallocation of workers out of agriculture and out of microenterprises to formal firms

China's WTO Accession and Structural Transformation

Composition of Employment



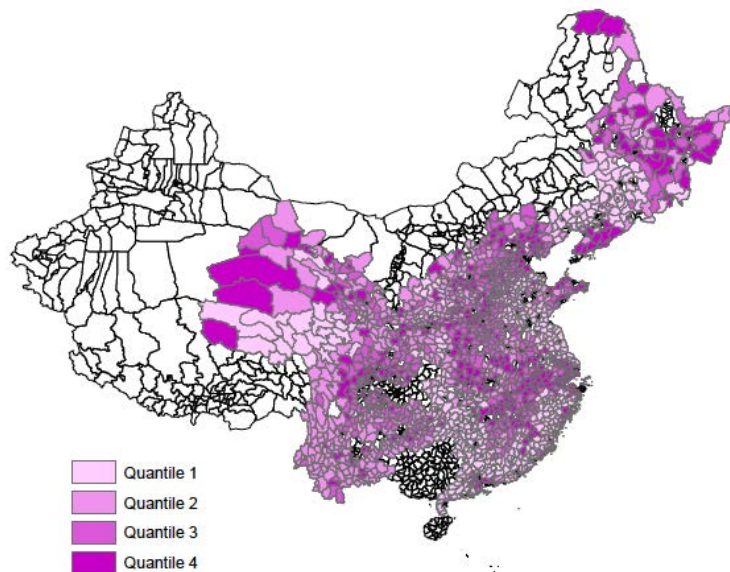
WTO accession reduces uncertainty about U.S. trade policy



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

Source: Erten and Leight (2017)

China's WTO Accession and Structural Transformation

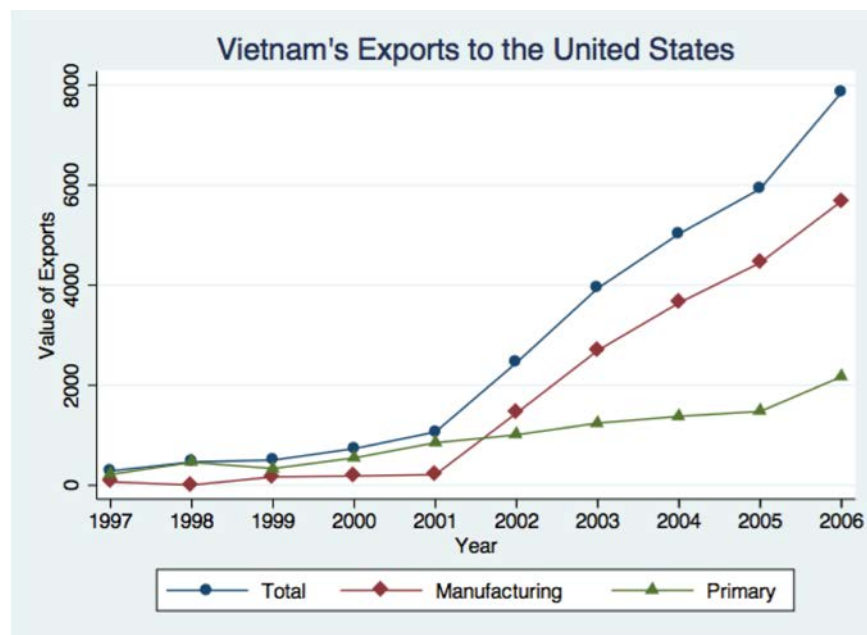


County exposure to tariff uncertainty

- 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

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.



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%

- 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

Informal sector plays a role in the adjustment to trade

- General equilibrium effects of trade at work
 - Exporting influences labor market outcomes of workers beyond formal manufacturing
 - Export opportunities promote the reallocation of workers out of microenterprises to the formal sector in Vietnam
- Shift to formal sector changes how a worker is attached to the labor force
 - Work longer & more regular hours
 - Less likely to hold multiple jobs
 - Higher earnings, more likely to receive benefits
 - Stable jobs are characteristic of a middle-class (Banerjee and Duflo 2007)

#2: 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.
- Supported by evidence from several developing countries, including India, Brazil, Mexico, Vietnam, China, South Africa (Topalova 2007, 2010, Kovak 2013, DC & Kovak 2017, Costa, Garred and Pessoa 2016, Chiquiar 2008, McCaig 2011, Erten and Leight 2017, Erten, Leight, and Tregenna 2018)

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)

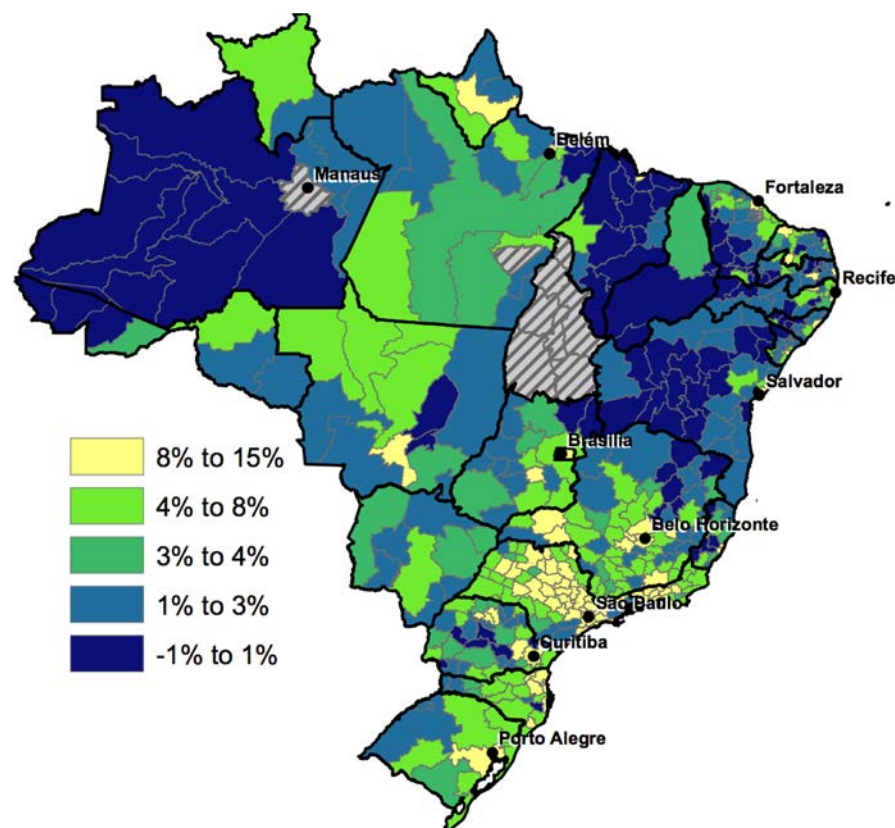
Concentrated losses: India's 1991 Import Liberalization

- 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 than 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)

#3: 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

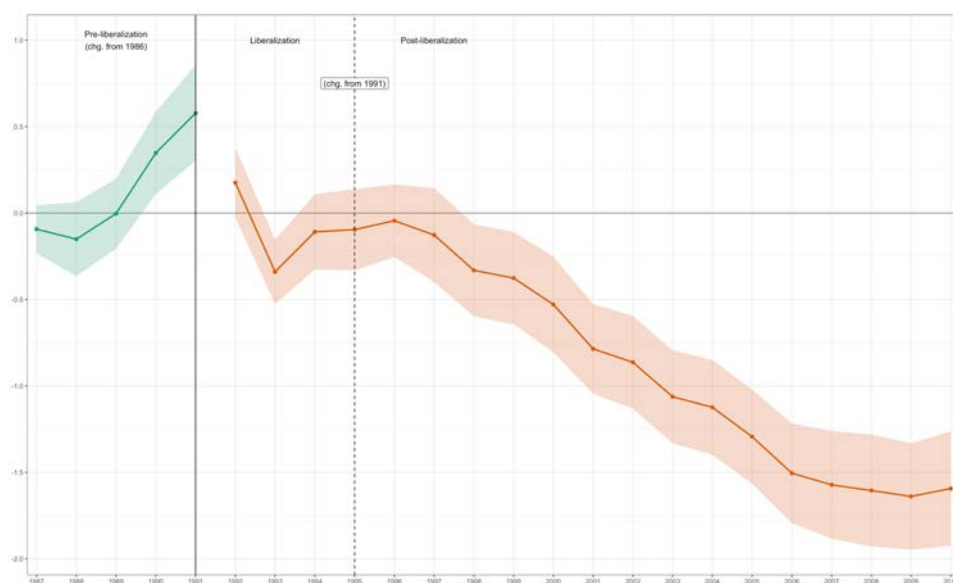
#4: The adverse effects of import competition are persistent and can amplify with time



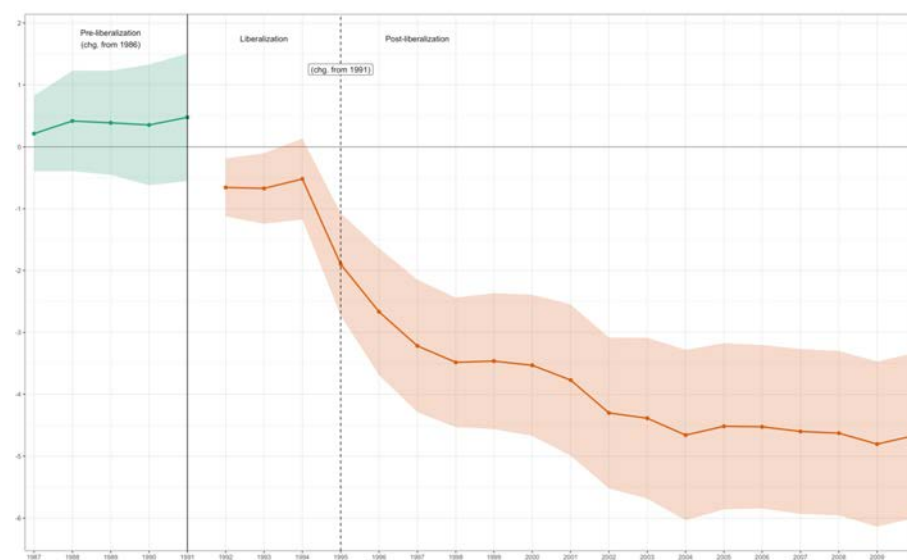
Source: Dix-Carneiro and Kovak (2017)

- 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

Import Liberalization Lowers Relative Regional Formal Earnings/Employment and Effects Amplify over Time

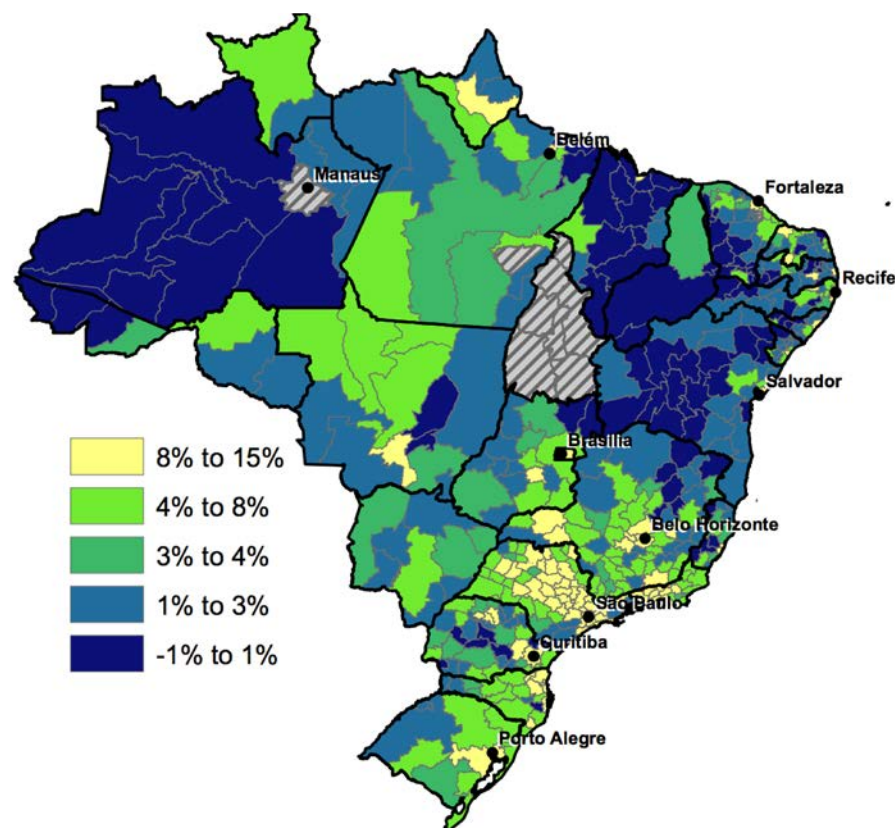


Earnings



Employment

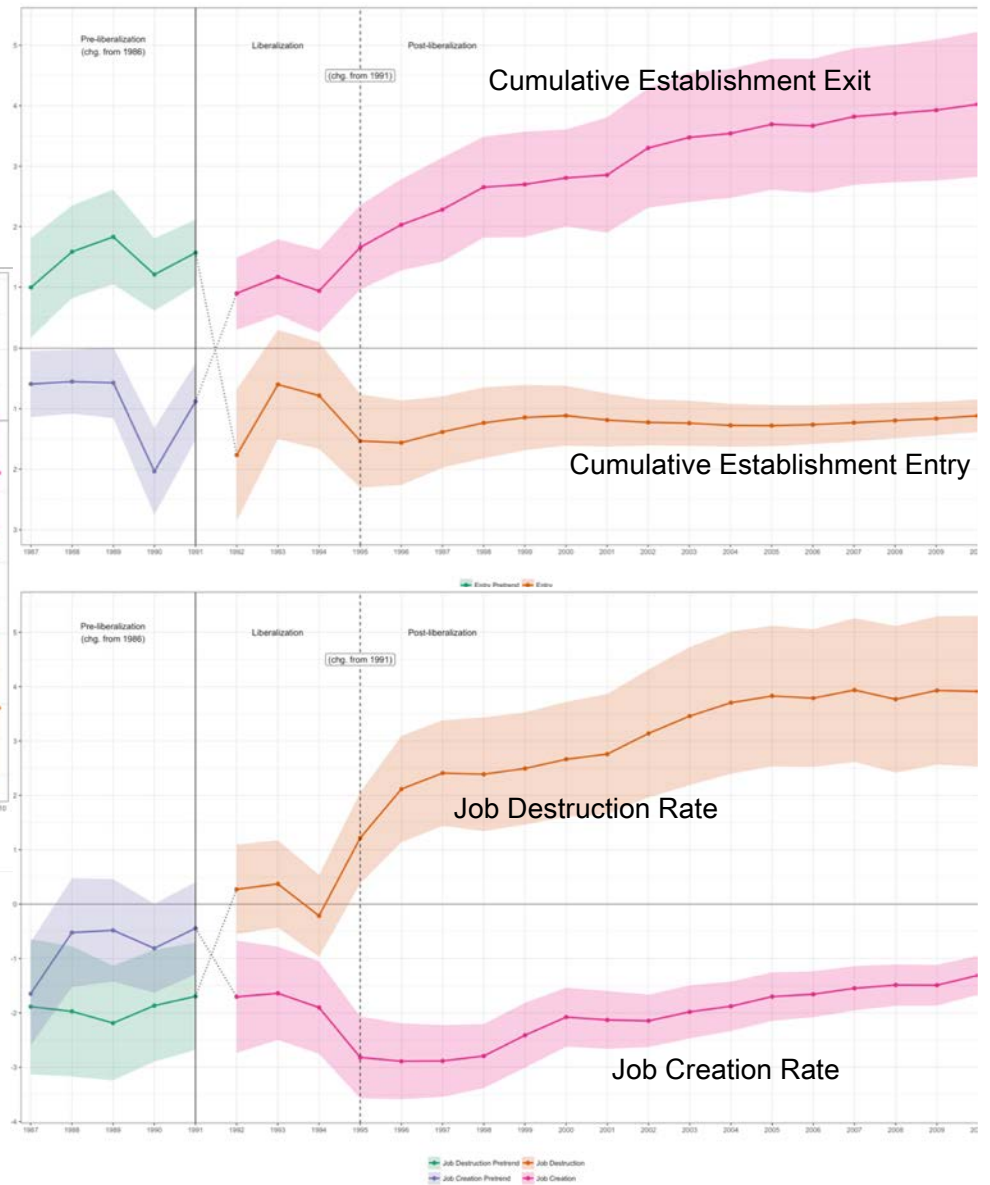
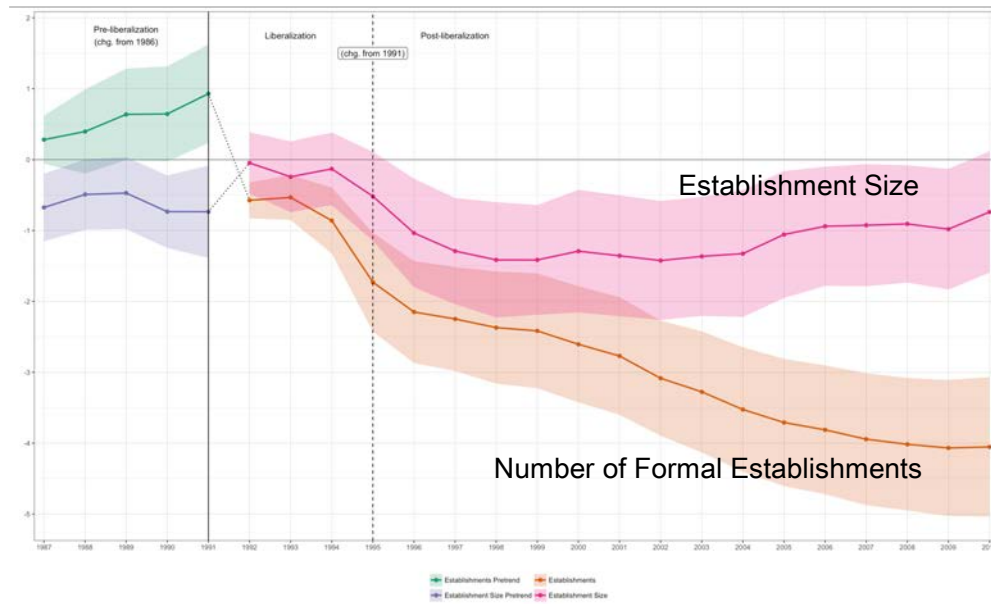
#4: The adverse effects of import competition are persistent and can amplify with time



- Lack of mobility across regions
- Negative agglomeration economies
- Slow adjustment of capital

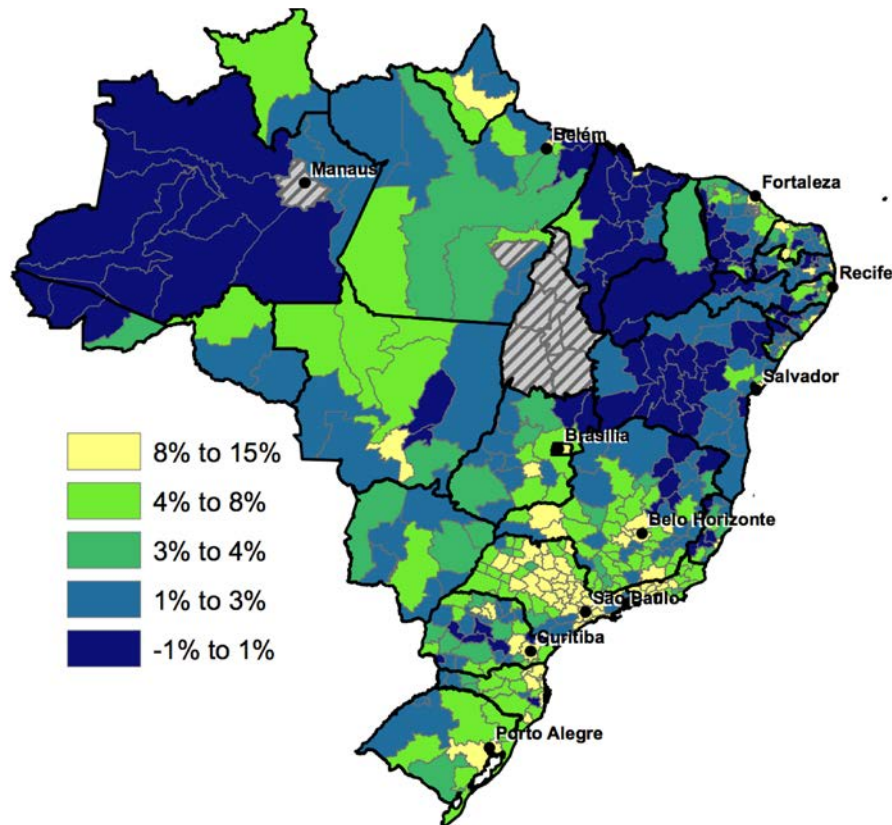
Source: Dix-Carneiro and Kovak (2017)

Slow adjustment of capital



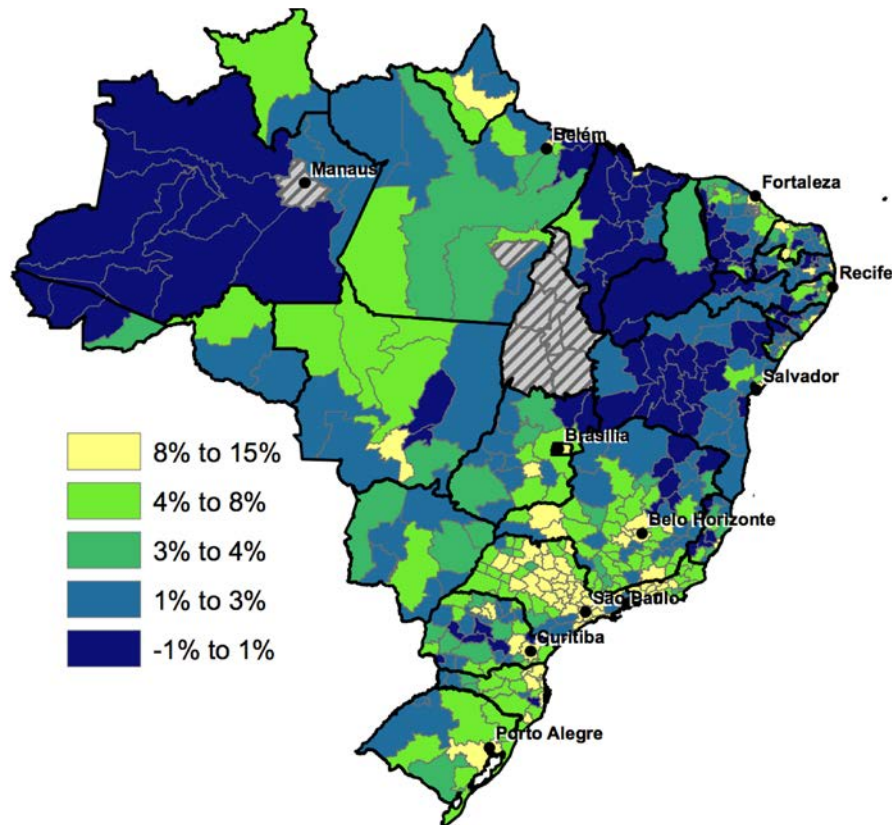
Source: Dix-Carneiro and Kovak, 2017

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

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.

Takeaways

- Shifting the focus from aggregate gains of trade to distributional effects of trade policy & transitional adjustment dynamics makes research more relevant to the concerns of the public, policy
- Employment losses from import competition are concerning
- Even more striking findings from recent literature
 - Geographically concentrated losses that are persistent over time
 - Slow adjustment of displaced workers, even 10-20 years following the initial trade policy change
 - Labor market consequences have spillovers to other community outcomes, including education of next generation
- Much of these consequences of trade policy missed if research focused on registered manufacturing firms in isolation

Trade Policy and Welfare Using Quasi-Experiments

- By now we have a wide range of studies using quasi-experimental approach
 - Benefits
 - Focuses on actions policymakers can take
 - Establish causality
 - Costs
 - Does not lend itself to welfare analysis
 - Cannot comment on levels, decompose outcomes
- These empirical methods complement other approaches
 - Empirical studies uncover new insights of specific mechanism through which trade operates and influence development of theory that embeds these features
 - This yields more informative counterfactual evaluations of future policy changes in quantitative studies of trade, numerical theory

Leamer and Levinsohn (1995) Handbook 3 Conclusion

- International Trade Theory: The Evidence (Leamer and Levinsohn)
 - Don't take theory too seriously, but don't take it too casually either

Future Opportunities

- To maintain relevance, trade field needs to:
 - Continue to make research more relevant to the concerns of the public, policy
 - Continue to address distributional effects and transition dynamics
 - We need a better understanding of specific mechanisms through which trade affects various outcomes of interest
 - Dynamic/long-run Impact on growth (and ultimately poverty) potentially most important, but hard to pin down econometrically
- Better measurement of trade barriers (Goldberg and Pavcnik 2016)
 - Measure before you estimate
 - back to industry case studies?

Future Opportunities

- Trade research increasingly intersects & interacts with research in economic development, labor economics, and industrial organization
 - Significant modelling advances
 - New data sources
 - clever quasi-experiments motivated by theory
 - use of RCTs make this an exciting area for future research