

# **Econ 133 – Global Inequality and Growth**

## **Global inequality and trade**

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## Roadmap

- Does trade help poor countries grow?
- How does trade affect inequality within countries?
- The economic effect of trade agreements

# 1 Trade and growth

Trade is a powerful force of convergence in average income across countries in the long run

- Channels: diffusion of knowledge and know-how
- Raises efficiency and productivity
- Important when country far beyond technological frontier and initially closed; less so for already open or frontier economies

## Empirical evidence on effect of trade on growth:

- Challenge: hard to establish causality
- Best evidence: Frankel and Romer (1999)
- Use geographic characteristics as instrument for trade
- “Trade has a quantitatively large and robust positive effect on income”

## 2 Trade and within-country income inequality

### Heckscher-Ohlin model

- Most of North-South is between relatively skill-endowed economies and relatively skill-scare economies
- Developing countries mostly export unskilled-intensive products; developed countries mostly export skill-intensive products
- Opening to trade analogous to rich countries exporting skilled

workers & developing countries exporting low-skilled workers

- Trade increases the effective supply of low-skilled workers in the North, and the supply of high-skilled workers in the South
- Stolper-Samuelson theorem: trade increases return to relatively abundant factor and lowers return to the other factor
- So skill premium should  $\nearrow$  in developed countries,  $\searrow$  in developing countries

If poor and rich countries both have two factors of production, labor and capital, then trade should cause:

A — A rise in the global rate of return to capital

B — A decline in the rate of return to capital in poor countries

C — A decline in the wage rate in poor countries

D — No effect on wages and rates of returns

## Trade and inequality in developing countries

Despite rising trade, inequality has not fallen in developing countries

- Other factors drive wages
- Trade may raise the demand for skills
- Competition between developing countries



## Trade and inequality in developed countries

Autor et al. (2014): large effect of exposure to international trade on employment and earnings of US workers

- Look at industry shocks to import competition stemming from China's spectacular rise as a manufacturing exporter
- Follow individuals who in 1991 worked in manufacturing industries that experienced high subsequent import growth

- Results: they earn less, face elevated risk of obtaining public disability benefits, spend less time working for initial employers
- Earnings losses are larger for individuals with low initial wages, low initial tenure, and low attachment to the labor force
- Low-wage workers churn primarily among manufacturing sectors, where they are repeatedly exposed to subsequent trade shocks.
- High-wage workers are better able to move across employers with small earnings losses & are more likely to move out of manuf.

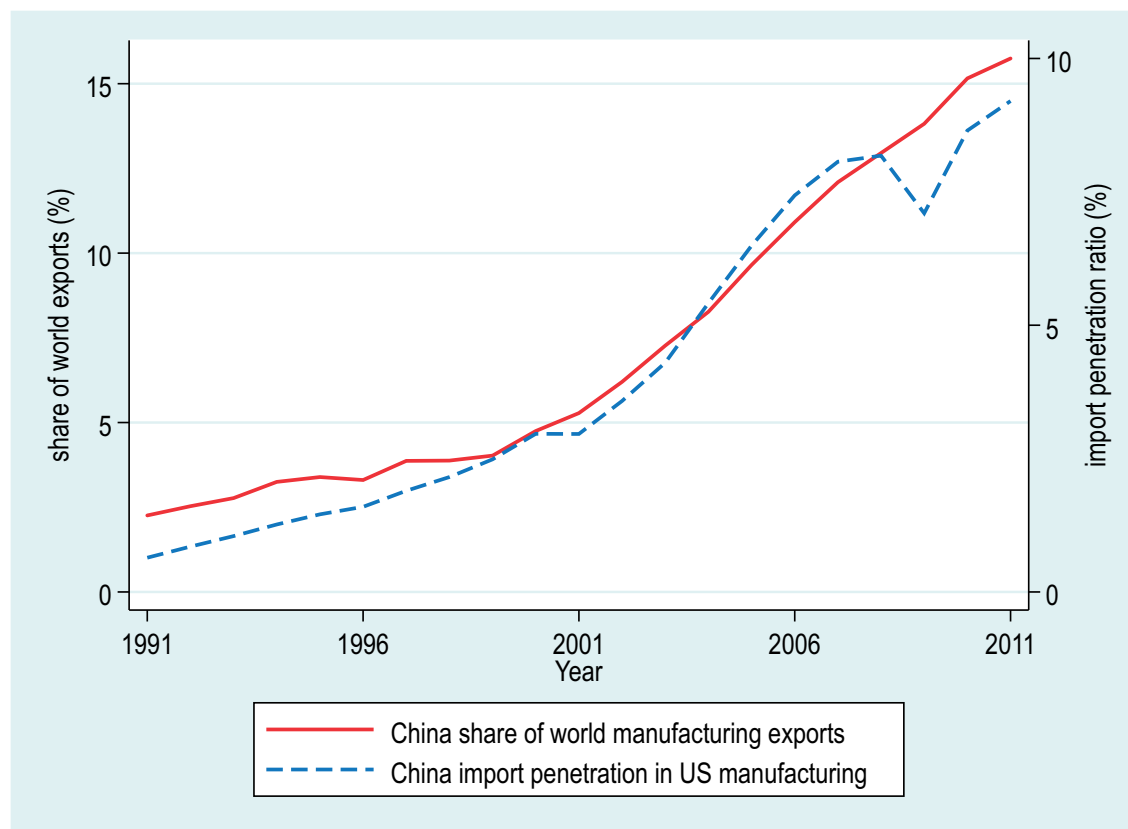


FIGURE I

### China Share of World Manufacturing Exports and China Import Penetration in U.S. Manufacturing, 1991–2011

The China share of world manufacturing exports is the ratio of China's total manufacturing exports to world total manufacturing exports as reported in World Development Indicators (<http://data.worldbank.org/>). The China import penetration ratio is U.S. manufacturing imports from China divided by U.S. domestic absorption in manufacturing (shipments plus imports minus exports).

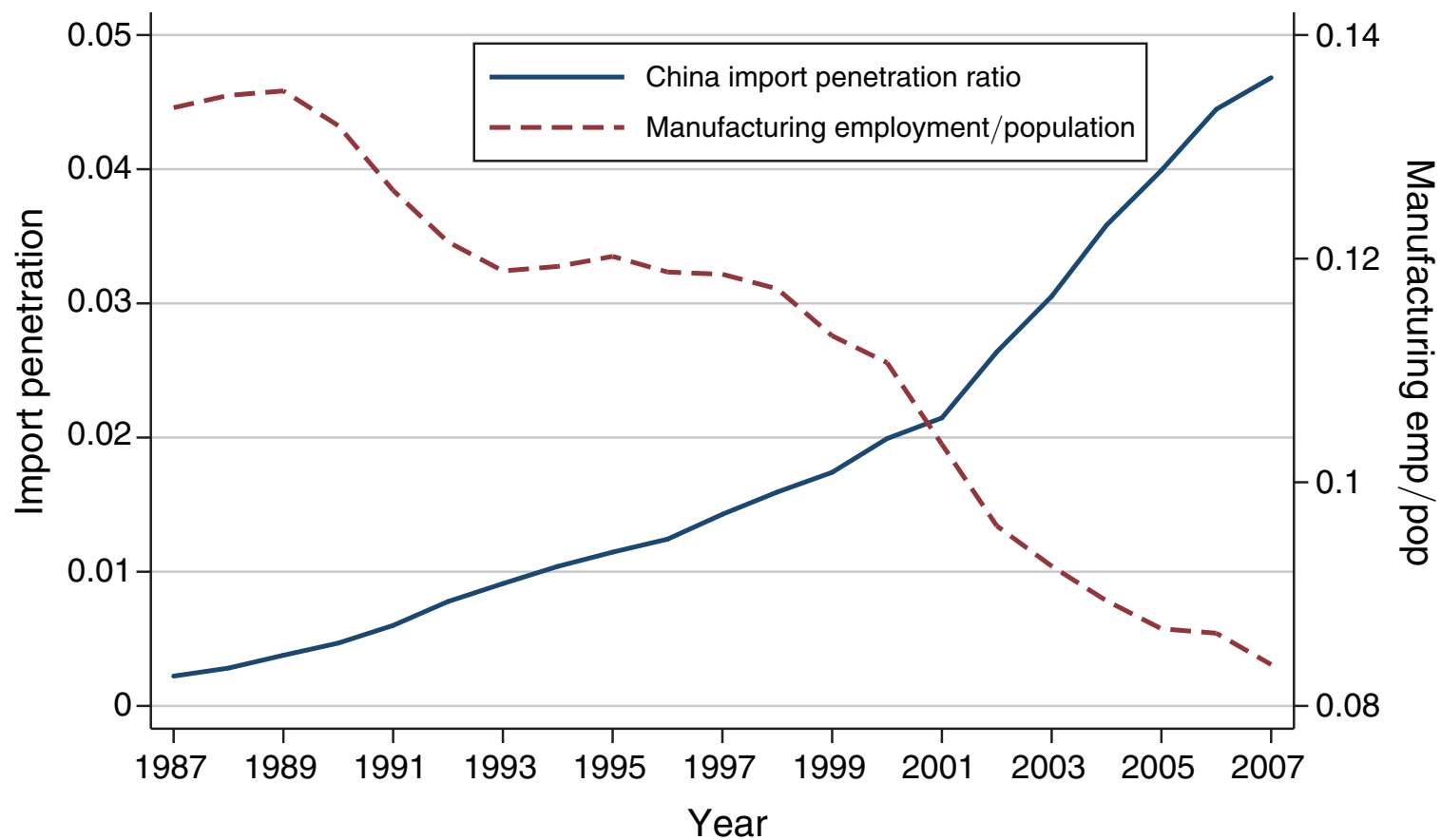


FIGURE 1. IMPORT PENETRATION RATIO FOR US IMPORTS FROM CHINA (*left scale*), AND SHARE OF US WORKING-AGE POPULATION EMPLOYED IN MANUFACTURING (*right scale*)

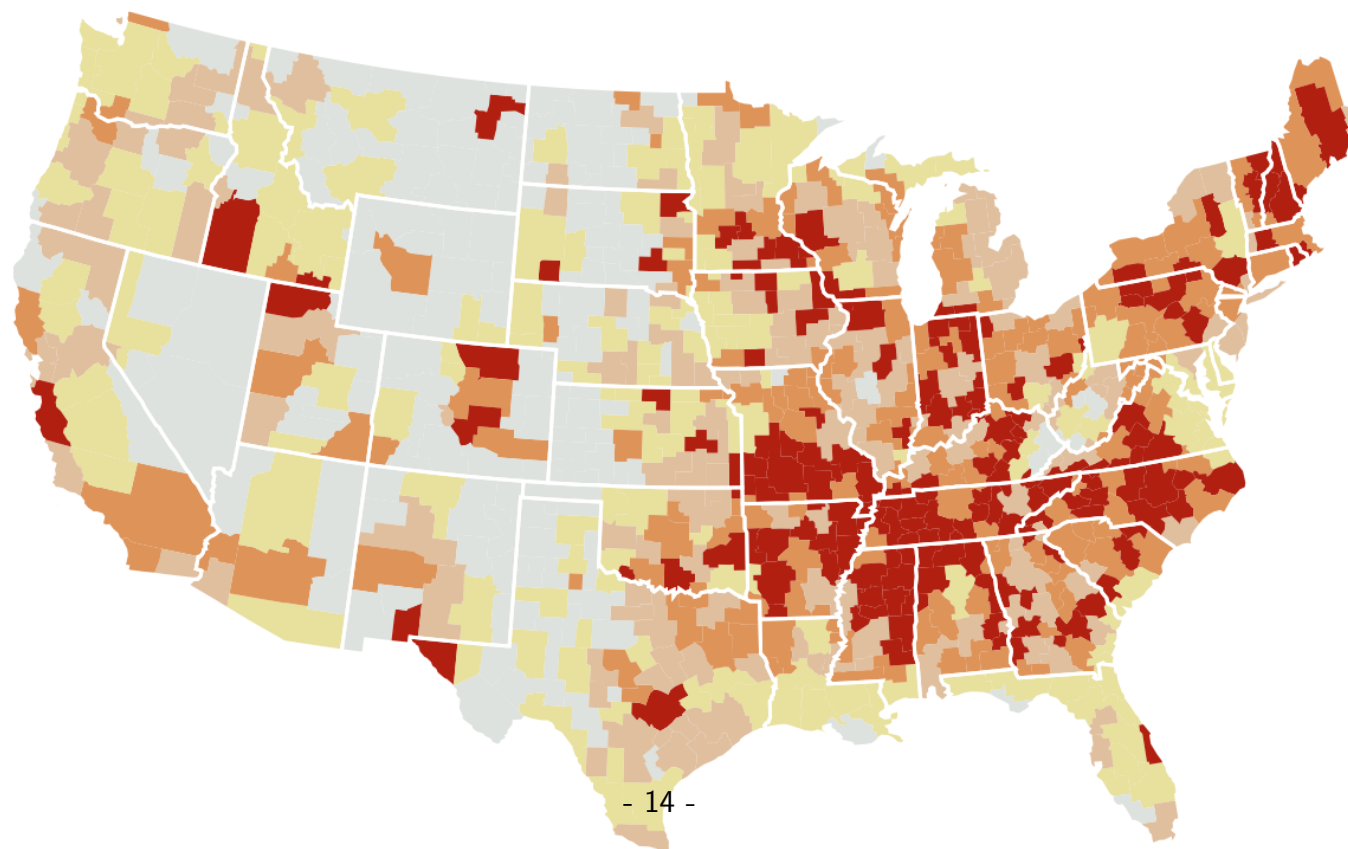
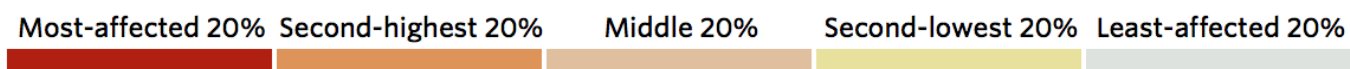
## Electoral consequences of rising trade exposure

Autor et al. (2016):

- Congressional districts exposed to larger  $\nearrow$  in import penetration removed moderate representatives from office in the 2000s
- Adverse economic conditions  $\rightarrow$  support for nativist politicians
- Michigan, Wisconsin, Penn and N Carolina would have elected Clinton if growth in Chinese import penetration 50% lower

## Most-affected areas of the U.S.

*Colors show which areas were most affected by China's rise, based on the increase in Chinese imports per worker in each area from 1990 to 2007. Hovering over each area on the map will show a demographic breakdown of that area, below, and its most-affected industries, at right.*



### 3 How trade agreements affect inequality

- For a long time, trade agreements = mostly about reducing tariffs
- Now increasingly about non-tariff barriers; intellectual property; dispute settlement
- Intellectual property rights provisions and dispute settlement = main provisions of (now dead) TTIP and TPP agreements
- Economic effects of these types of agreements?

## 3.1 Patent regulations

- Large literature on economic effects of IP rights
- Boldrin and Levine (2013): “There is no empirical evidence that they serve to increase innovation and productivity”
- Very high profitability of US pharmaceuticals
- Main effect of further protection could be to deny life-saving drugs to poor people



## 3.2 Investor-State Dispute Settlement

- ISDS are now part of over 3,000 agreements worldwide
- Can help thwart expropriation and unfair treatment, bypass corrupt, incompetent or biased national courts
- But also restrict ability of governments to regulate; opaque functioning; arbitrary and potentially large payment
- Used a lot to deprive developing countries of gov revenue

**Table 1: Countries with the most arbitration clauses in tax treaties**

<b>Country</b>	<b>No. arbitration clauses</b>
Netherlands	41
Switzerland	40
United Kingdom	22
Canada	21
Italy	18
Mexico	15
Belgium	12
United States	12
Liechtenstein	12
Luxembourg	12

Source: Martin Hearson and Todd Tucker (2015)

## 4 Summary

- Trade is a powerful force of convergence in average income across countries
- But its distributional consequences within countries are large
- Recent trade talks are mostly about IP and ISDS which are unlikely to contribute to reducing global inequality

## References

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