International Trade: Lecture 10

Distribution of Income and the Political Economy of Trade Policy

Carlos Góes[1]

[1]George Washington University

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Last class

- Specifics Factor Model (Ricardo-Viner)

- Can analyze consequences of
  - Productivity shocks
  - Changes in factor endowments

- In most cases, results are intuitive:
  - “Dutch disease” (Boom in export sectors, Bids up wages, which leads to a contraction in the other sectors)
  - Useful political-economy applications (Grossman and Helpman 1994)

- Easy to extend the analysis to more than 2 sectors:
  - Plot labor demand in one sector vs. rest of the economy
  - Convenient for empirical work (Kovak 2013)

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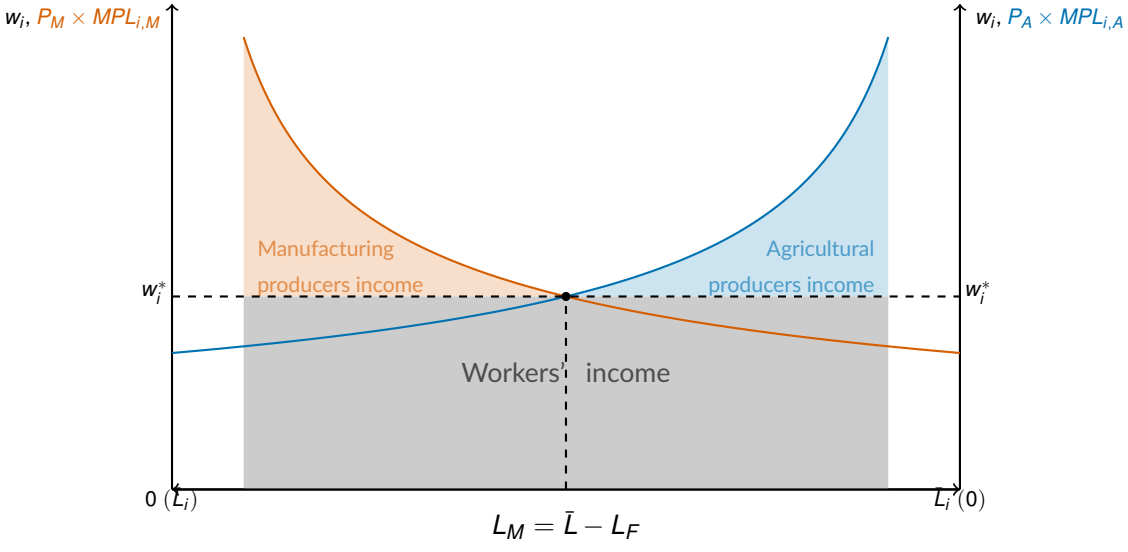
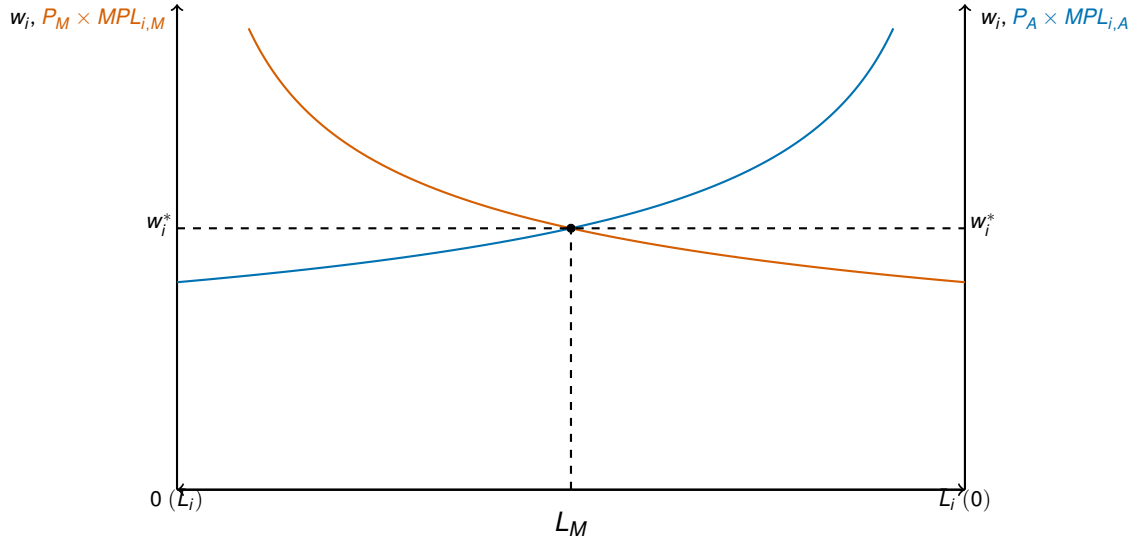
Distribution of income: Diagram



Trade Equilibrium: Labor Market Shifts



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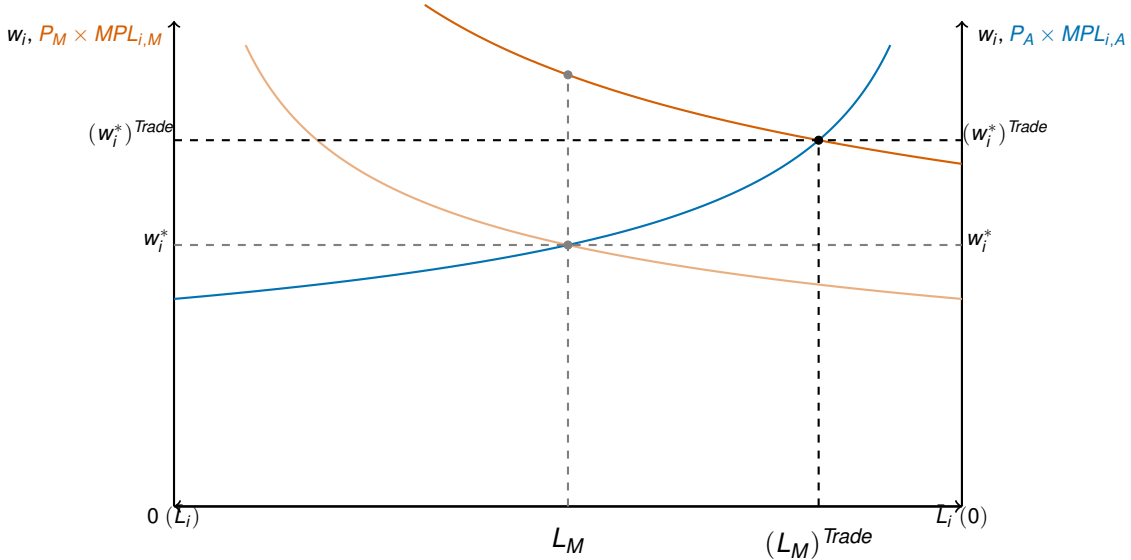

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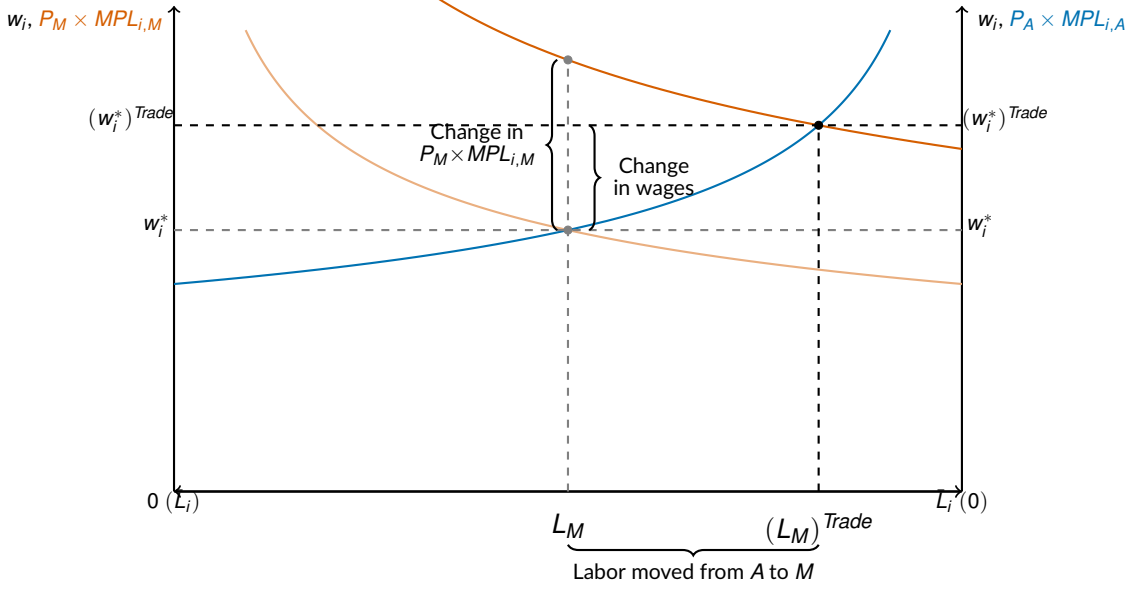

Distributional effects of trade

- Wage paid to workers increases, but less than proportionally compared to the increase in the price of manufacturing goods (P_M)
  - Real wage in terms of manufactures, w / P_M, declines, while the real wage in terms of food, w / P_A, increases.
  - Net impact on workers' welfare is ambiguous – it depends on how much they consume of each good, which in turn reflects their preferences.

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- Landowners unambiguously lose
  - real wage in terms of food has risen, reducing the residual income
  - relative price of manufacturing goods has increased, lowering purchasing power on land rents

Distributional effects of trade

We can summarize the distributional effects of a relative price change as follows:

- The specific factor employed in the sector with a rising relative price gains.
- The specific factor employed in the sector with a falling relative price loses.
- The mobile factor (labor) experiences an ambiguous welfare effect.

While there are distributional effects, there are aggregate gains

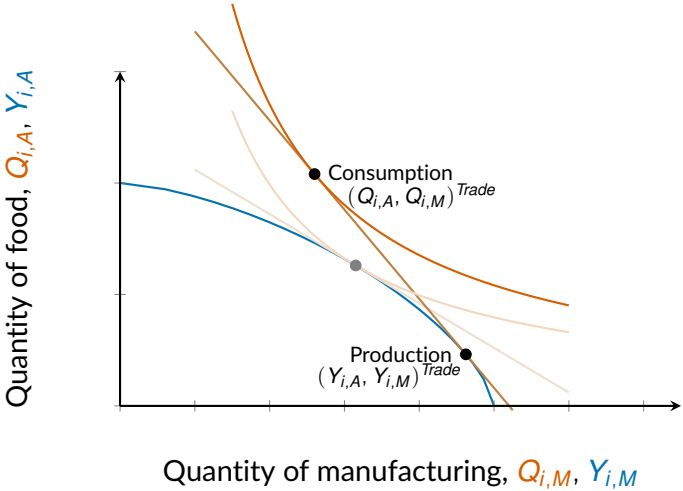


Figure: Optimal Consumption and Production Choices for Society as a Whole

Political economy of trade policy: preliminaries

- If factors cannot reallocate, there are winners and losers
- This creates political tensions
  producers seek protection from imports, though protection harms consumers
- Politics are messy, incentives to organize are asymmetric
- Small group of losers typically lose a lot; large group of winners typically gain a little
  "concentrated costs and diffuse benefits"

Example: China trade shock

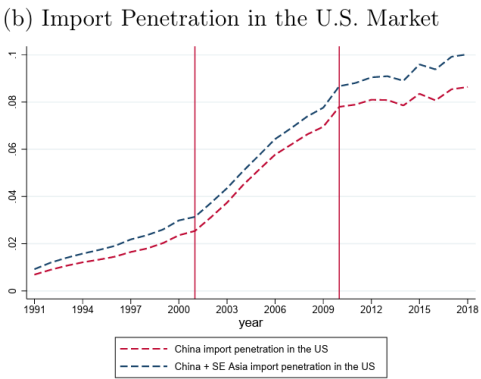
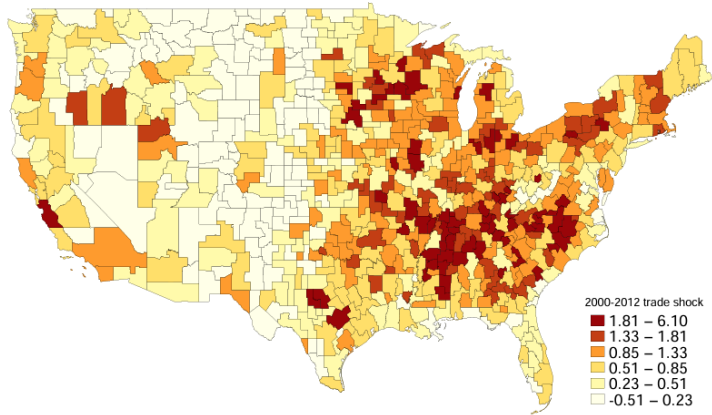


Figure: Source: Autor, Dorn & Hanson (2021)

- China's share in world manufacturing exports rose from 3.1% in 1991 to 17.6% in 2015
- China's share in total absorption (domestic use) in the US increased from 2% to 8%
- US regions more different in terms of industrial composition
- China import competition was higher in manufacturing
- $\Longrightarrow$ Regions with large manufacturing employment hit harder

China trade shock over space

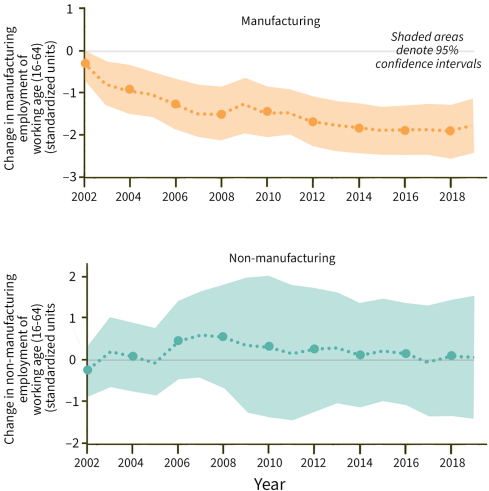
Figure 4: Chinese Import Penetration (2000-2012) in U.S. Commuting Zones



Note: This figure shows the change in import penetration from China in (1) over 2000-2012. The legend indicates values for the bottom four quintiles and the top two deciles.

Figure: Source: Autor, Dorn & Hanson (2021)

Distributional effects of the China trade shock over labor

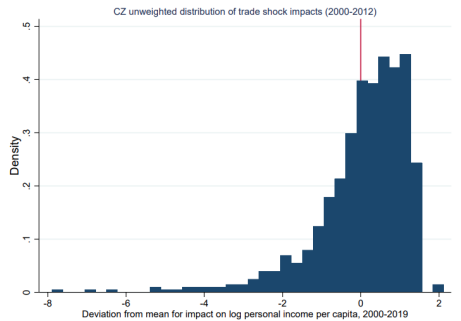


Source: Autor, Dorn & Hanson (2021)

- US regions more exposed to Chinese import competition saw (relative) losses in manufacturing employment growth
- Effects persist many years into the future, due to frictions for labor mobility
- There were winners and losers due to trade integration...
- Were gains larger the costs?

Distributional effects of the China over income

Figure 14: Implied Variation in Changes in Personal Income per Capita, 2000 to 2019

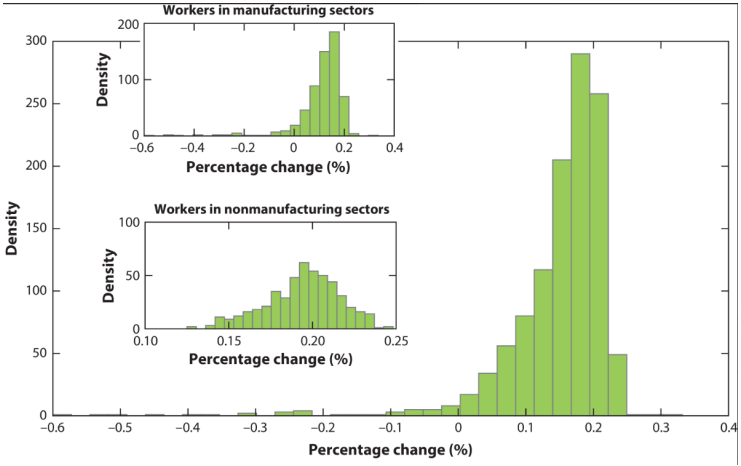


Note: This figure shows a histogram for the welfare change in (8), evaluated for the 2000-2012 trade-shock induced change in personal income per capita (based on results in Figure 8a), expressed as the deviation in shock impacts from the population-weighted national mean. The impact coefficient used is that for the 2000-2019 time difference ($\beta = -2.66$, t-value $= -1.90$). The standard deviation in the implied shock impact is 1.22 percentage points.

Source: Autor, Dorn & Hanson (2021)

- The increase in China's imports decreased prices by about 1.25% in the US
- Putting the effect on income (negative) and on prices (positive), real income increased for ~94% of Americans

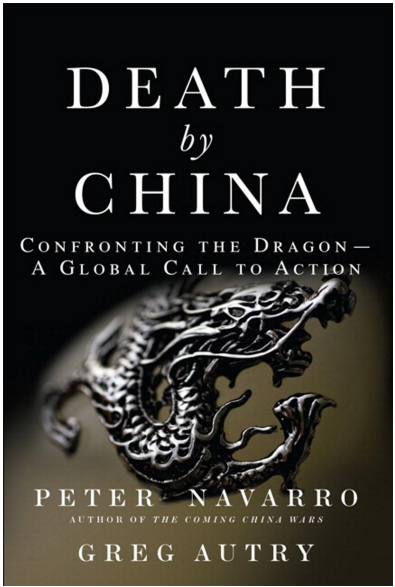
Distributional effects of the China over welfare



Source: Caliendo & Parro (2023)

- But this masks substantial heterogeneity across regions and sectors
- Gains were concentrated in the non-manufacturing sector (most of population)
- Manufacturing sector experienced large contractions
- Regions that were large manufacturing hubs (think Detroit) were affected

The politics of the China trade shock



- Peter Navarro
  - Senior counselor for trade and manufacturing to President Trump
  - Retired Econ Professor, UC Irvine
  - Harvard PhD, 1986 (not on trade)

"The defining moment in American economic history is when Bill Clinton lobbied to get China into the World Trade Organization. It was the worst political and economic mistake in American history in the last 100 years." – Navarro & Autry, Death by China

"Tariffs are tax cuts. Tariffs are jobs. Tariffs are national security. Tariffs are great for America. Tariffs will make America great again." – Peter Navarro on Fox News, 2025

The politics of the China trade shock

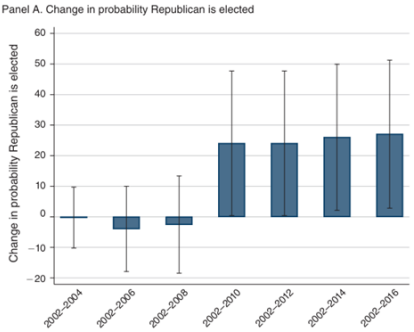


FIGURE 5. EXPOSURE TO CHINESE IMPORT COMPETITION AND ELECTORAL RESULTS, 2002–2004/2016

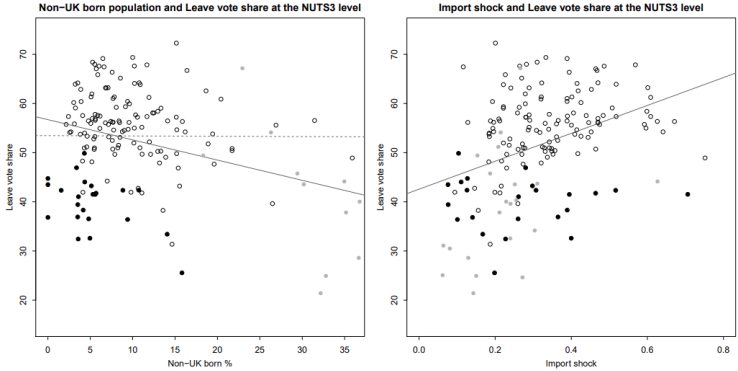
Notes: Dependent variables: change in Republican win probability and change in Republican two-party vote share (in percentage points). Estimates of equation (5) for the relationship between the change in China import exposure between 2002 and 2010 and (panel A) the change in the probability that a Republican is elected, and (panel B) the change in the Republican two-party vote share, both measured in percentage points. Each bar represents a coefficient from a separate regression while whiskers indicate 95 percent confidence intervals. All regressions include the full vector of control variables from column 5 of Table 3. Observations are weighted by a county-district cell's share in the total year-2000 voting age population of a district, so that each district has a total weight of 1. Standard errors are two-way clustered on CZs and congressional districts. Full regression results are reported in online Appendix Table S9.

Source: Autor, Dorn, Hanson & Majlesi (2020)

- Evidence suggests *aggregate gains* but *distributional consequences* of trade shock
- Regions more exposed to Chinese import competition were more likely to turn Republican
- In polarized environments, distributional impacts – even if not large – can have large consequences

Another example: China trade shock and Brexit

Figure 4: Import shock, immigration, and Leave vote share.



Notes: Black dots are NUTS3 regions of Scotland, grey dots are the NUTS3 of London, and the hollow dots are the remaining NUTS3 of England and Wales. The grey solid lines are least-squares fits on the whole sample, the dashed grey line is the least-squares fit excluding London.

Figure: Source: Colantone & Stanig (2018)

Economic consequences of Brexit

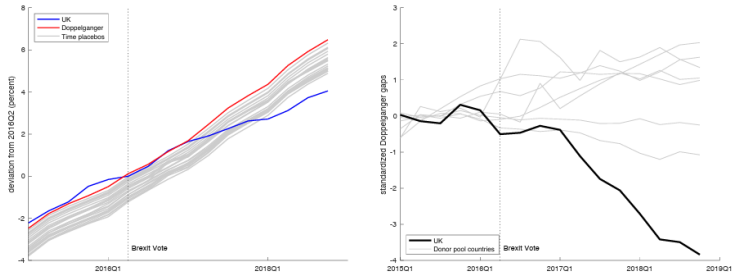


Figure 3: Placebo tests. *Note:* left panel shows real GDP of UK (blue line) and baseline doppelganger (red line), with grey lines representing time placebo doppelganger estimates with fictitious Brexit vote dates ranging from 2010Q1 to 2016Q1. Right panel shows the UK doppelganger *gap* (thick black line), with grey lines representing country placebo doppelganger gaps estimated by considering fictitious Brexit votes in donor pool economies. For comparability, all doppelganger gaps are normalized by their respective pre-Brexit standard deviations and centered around their 2015 means.

Figure: Source: Born, Müller, Schularick & Sedláček (2019)

Risks of Trade Decoupling

- What are the risks that the world splits into a Cold War like scenario?
- The economic literature calls that “trade decoupling”
- How bad could it be?
- Through the lens of the models we have seen:
  - lower welfare due to more expensive prices (lower real income)
  - distributional consequences
- But also:
  - lower investment
  - less technological diffusion
  - less innovation (market size)

Trade Decoupling along Political Lines?

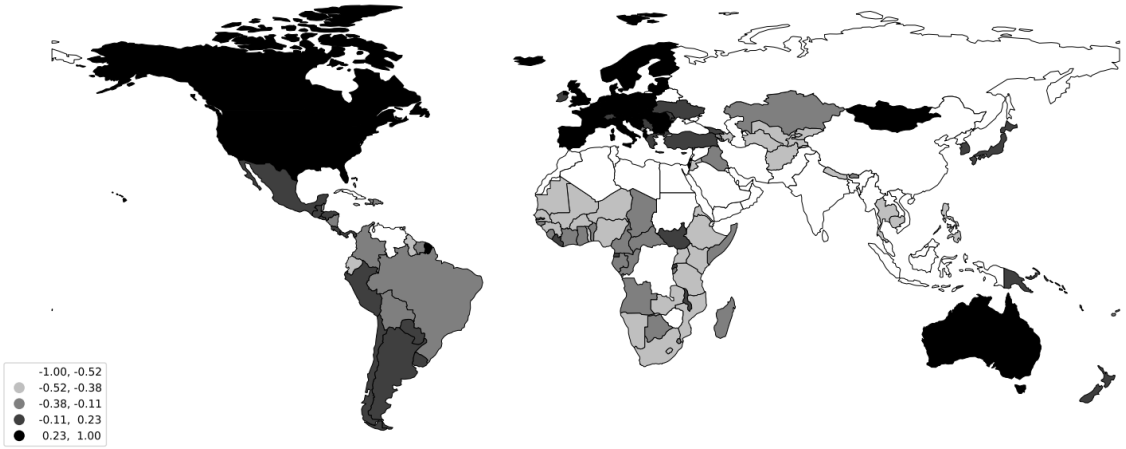


Figure: Differential Foreign Policy Similarity Index. Values are normalized such that 1 represents maximum relative similarity with the U.S. and −1 represents maximum relative similarity with China. The map shows the difference between pairwise similarity indices $\kappa_{i,US} - \kappa_{i,China}$. For more details, see Häge (2011).

Source: Góes & Bekkers (2022)

Outcomes of Trade Decoupling

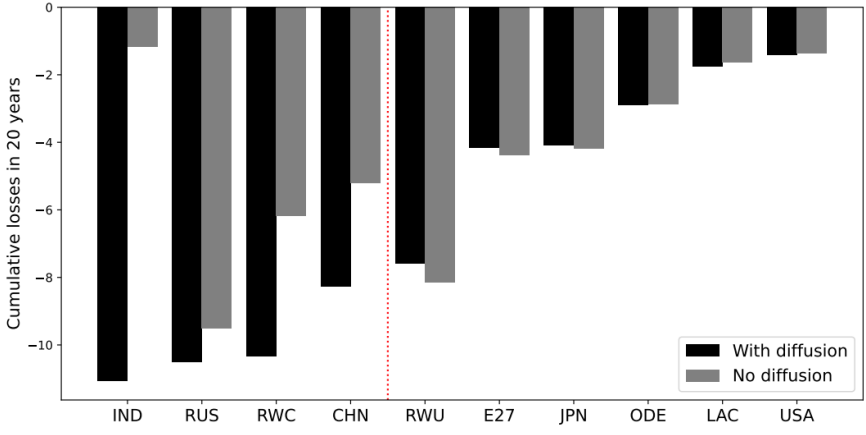


Figure: Cumulative Percentage Change in Real Income, after policy change, by 2040. *Full Decouple* increases iceberg trade costs $\tau^{i}_{sd,t}$ by 160 percentage points.

Source: Góes & Bekkers (2022)