Globalization and the Ladder of Development: Pushed to the Top or Held at the Bottom

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Introduction

Introduction: Motivation

Big question: Can **opening up to trade** push a country to a **long-term path of growth**?

Hypothesis:

- **Long-term growth** is dictated by whether a country can increase its capability to produce more **complex goods** (the development ladder).
- Hence, the impact of trade depends on whether trade liberalization nudges a country to get involved in **good sectors** or **bad sectors**.

Introduction: Findings

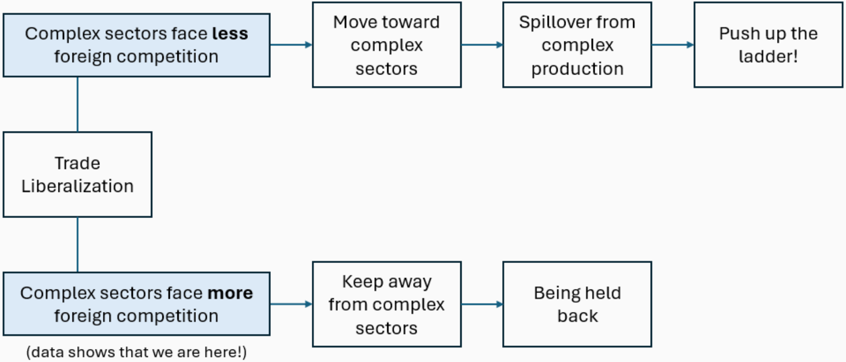

Figure 1: Theoretical framework of Trade impact

Introduction: Contributions

1. Formalisation of the *ladder* economy - a Ricardian multi-country economy characterised by:
    - Each country has a level of **capability** to produce **complex** goods
    - **Capability** can be accumulated and spilled over (learning by doing)
    - **Capability** and **complexity** determine **productivity** (comparative advantage), which sets the trade pattern
2. Measuring capability (of country) and complexity (of goods/sectors)
3. Estimating the dynamic spillover effect of producing complex goods

Data

Panel data at country-sector-year level from UN Comtrade database:

- From 1962 to 2014
- 146 countries
- 715 4-digit SITC manufacturing products

Correct for small quantities of re-export activities

- Only accounts for bilateral trade flows larger than $100,000 (2010 values)

Model

Model: Setting

A *ladder* economy consists of:

1. Many countries (country i exports to country j)
2. A continuum of sectors k (each sector produces one good) s.t. $\int dk = 1$
3. Continuous time t
4. Labor supply L is the only factor of production and $L_{i,t} = \sum_j (\int \ell_{ij,t}^k dk)$

The economy is further characterised by *consumption preferences*, *production technology*, and *equilibrium conditions*.

Model: Setting

Preferences (consumer)

For consumption of varieties from (i) different sectors produced by (ii) different countries, the preferences take a nested CES form:

$$\text{Upper tier: } C_{i,t} = \left(\int_k (C_{i,t}^k)^{\frac{\epsilon-1}{\epsilon}} dk \right)^{\frac{\epsilon}{\epsilon-1}} \qquad \textit{(all sectors)}$$

$$\text{Lower tier: } C_{i,t}^k = \left(\sum_j (c_{ji,t}^k)^{\frac{\sigma-1}{\sigma}} \right)^{\frac{\sigma}{\sigma-1}} \qquad \textit{(all origins within 1 sector)}$$

- ϵ is substitution elasticity between sectors
- σ is substitution elasticity within sector
- $\sigma > \epsilon$: more substitutability within than between sectors

Model: Setting

Technology (producer)

For exporting flow from country i to j, the production function of sector k takes a linear form:

$$q_{ij,t}^{k} = A_{ij,t}^{k}\ell_{ij,t}^{k}$$

s.t. the **capability constraint** on productivity

$$A_{ij,t}^{k} = \begin{cases} A_{ij,t} & \text{if } n_t^k \leq N_{i,t} \quad \Rightarrow q_{ij,t}^{k} = A_{ij,t}\ell_{ij,t}^{k} \\ 0 & \text{otherwise.} \quad \Rightarrow q_{ij,t}^{k} = 0 \end{cases}$$

- $N_{i,t}$ is country-specific **capability**
- n_t^k is sector-specific **complexity**
- $A_{ij,t}$ is independent of sector k $\rightarrow$ Ricardian comparative advantage **on extensive-margin**

Model: Setting

Technology (producer): The pattern of production across goods is entirely determined by $N_{i,t}$ and distribution of n_t^k.

They are characterised as:

$$\text{Evolution of } \textbf{capability} \quad : \quad \dot{N}_{i,t} = H_{i,t}(N_{i,t},\ F^{\ell}_{i,t})$$

$$\text{Allocation of labour (based on sector } \textbf{complexity}) \quad : \quad F^{\ell}_{i,t}(n) = \frac{\int_{0 \le n_t^k \le n} \sum_j \ell^k_{ij,t} dk}{\int \sum_j \ell^k_{ij,t} dk}$$

with $\int_{0 \le n_t^k \le n} dk = F_t(n)$ is the total measure of goods k which have level of complexity n^k below a given complexity $n \Rightarrow F^{\ell}(n)$ is cumulative distribution of employment across all sectors with complexity below n

The Ladder assumption: $H_{i,t}$ is increasing in $F^{\ell}_{i,t}$

$$F^{\ell}_{i,t} \ge F^{\ell'}_{i,t} \Rightarrow H_{i,t}(N_{i,t}, F^{\ell}_{i,t}) \ge H_{i,t}(N_{i,t}, F^{\ell'}_{i,t})$$

$\Rightarrow$ If an allocation has more people employed in (more) complex sectors, that allocation also has higher capability growth.

Model: Equilibrium

The model has a equence of static competitive equilibria (no foward-looking agents) with free trade in goods and financial autarky. The equilibrium conditions include:

Static: at each date t

- Consumers maximise their utility s.t. budget constraints

$$\textbf{Demand function: } c^k_{ij,t} = \frac{(p^k_{ij,t})^{-\sigma}}{(P^k_{j,t})^{1-\sigma}} \frac{(P^k_{k,t})^{1-\epsilon}\omega_{j,t}L_{j,t}}{(P_{j,t})^{1-\epsilon}}, \text{ in which}$$

$$\text{Sector-level price index: } P^k_{j,t} = \left[\int_i \left(p^k_{i,j,t}\,\tau^k_{i,j,t}\right)^{1-\sigma} di\right]^{\frac{1}{1-\sigma}},$$

$$\text{Aggregate price index: } P_{j,t} = \left[\int_k \left(P^k_{j,t}\right)^{1-\epsilon} dk\right]^{\frac{1}{1-\epsilon}},$$

Model: Equilibrium

Static (continue): at each date t

- Firms maximise their profits in perfectly competitive market, and taking both prices and (country-specific) capability levels as given

$$p^k_{ij,t} = w_{i,t}/A^k_{ij,t}$$

- Clearing of goods and labour markets

$$c^k_{ij,t} = A^k_{ij,t}\ell^k_{ij,t}$$

$$\sum \int \ell^k_{ij,t} dk = L_{i,t}$$

Dynamic: in each static equilibrium, the path $\{N_{i,t+\Delta}\}$ is determined by the current capability $\{N_{i,t}\}$ and the current labour allocation $\{F^\ell_{i,t}\}$.

Equilibrium analysis: Trade and Development

Using the theoretical model, the authors can analytically compare outcomes (capabalities $\{N_{i,t}\}$ and aggregate consumption $\{C_{i,t}\}$) under the **trade openness equilibrium** (above) with a **closed-economy equilibrium**

The two following propositions can be proved:

Proposition 1

In a ladder economy, openness to trade raises capability and aggregate consumption at all dates in all countries.

Proposition 2

In an inverted ladder economy, openness to trade lowers capability at all dates in all countries and may lower aggregate consumption at some dates

Equilibrium analysis: Trade and Development

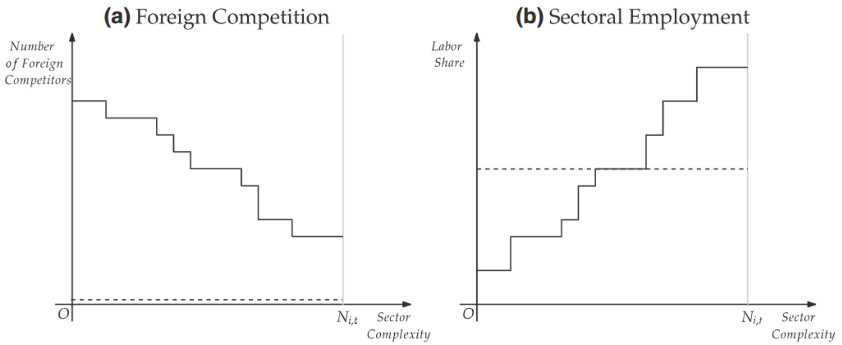

FIGURE 1

Changes in the pattern of specialization after opening up to trade

Notes: (a) The number of foreign competitors faced by country i against sector complexity n_t^k before (dashed line) and after (solid line) opening up to trade, across all the sectors that country i is able to produce ($n_t^k \leq N_{i,t}$) is plotted. (b) For the same country the share of labour employed in sectors of different complexity, both before (dashed line) and after (solid line) opening up to trade is plotted

Figure 2: Changes in the pattern of specialisation after opening up to trade (for Proposition 1)

Moving to Empirics

Next goal: Using the proposed framework and empirical data to answer the question: when opening up to trade, which scenarios are more likely to happen - **pervasive dynamic gains** or **losses**?

Challenge: The conceptual model is too generic to work with the data
$\Rightarrow$ In the next part, the authors depart from the previous theoretical assumptions

- **Productivity** is a stochastic function of **capability** and **complexity**
- The **capability law of motion** $H(.,.)$ is imposed with **parametric restrictions**

Empirics: Measure Capability and Complexity

From Theory to Empirics

Old assumption: knife-edge ladder of productivity with strict hierarchical cutoff

$$A_{ij,t}^{k} = \begin{cases} A_{ij,t} & \text{if } n_t^k \leq N_{i,t} \quad \Rightarrow q_{ij,t}^k > 0 \\ 0 & \text{otherwise.} \quad \Rightarrow q_{ij,t}^k = 0 \end{cases}$$

Relaxed new assumption: the productivity is random, which allows some countries to produce **complex goods beyond their capability**.

$$\text{Prob}(A_{ij,t}^k > 0) = \delta_{ij,t} + \gamma_{j,t}^k + N_{i,t} n_t^k$$

in which

- $\delta_{ij,t}$ is exporter-importer-year fixed effect
- $\gamma_{ij,t}^k$ is importer-sector-year fixed effect
- $N_{i,t}\ n_t^k$ captures the non-linear, interactive effect of country-level capability and sector-level complexity on export performance

Empirical design

Propose a LPM estimation with $x^k_{ij,t}$ is the flow of trade (in \$):

$$\pi^k_{ij,t} = \mathbf{1}\{x^k_{ij,t} > 0\} = \delta_{ij,t} + \gamma^k_{j,t} + \underbrace{N_{i,t} n^k_t}_{\text{key estimator}} + \epsilon^k_{ij,t}$$

Identification: to recover each component $N_{i,t}$ and n^k_t

Example: Compare two countries (US, BG) and two goods (k, k_0) with no error terms.

$$n^k_t = n^{k_0}_t + \frac{(\pi^k_{US,j,t} - \pi^{k_0}_{US,j,t}) - (\pi^k_{BG,j,t} - \pi^{k_0}_{BG,j,t})}{N_{US,t} - N_{BG,t}}.$$

If $N_{US,t} > N_{BG,t}$ and the US is relatively more likely to export k than k_0, then $n^k_t > n^{k_0}_t$ - identified

Similarly, comparing two goods (ME, UW) and two countries (i, i_0), so capability $N_{i,t}$ is identified:

$$N_{i,t} = N_{i_0,t} + \frac{(\pi^{ME}_{ij,t} - \pi^{UW}_{ij,t}) - (\pi^{ME}_{i_0 j,t} - \pi^{UW}_{i_0 j,t})}{n^{ME}_t - n^{UW}_t},$$

But only up to an affine transformation

Empirical design

With error terms:

1. Take **double differences** across exporters and goods (using reference good k_0 and country i_0), and **averaging** over destinations to remove the fixed effects (δ, γ) and the noise:

$$\mathrm{DD}_{ii_0,t}^{kk_0} = \frac{1}{J}\sum_j \left[(\pi_{ij,t}^{k} - \pi_{i_0j,t}^{k}) - (\pi_{ij,t}^{k_0} - \pi_{i_0j,t}^{k_0})\right] \rightarrow_{J\rightarrow\infty} (N_{i,t} - N_{i_0,t})(n_t^{k} - n_t^{k_0}) + \text{mean-zero noise}$$

2. **Additional normalisation** to get unique estimated values for each country and sector: (i) the lowest and highest complexity are time-invariant, and (ii) the lowest complexity level is 0.

Estimation results

The estimation results fit well with the priors about the country-level of economic development and sector-level of technological sophistication:

Sector-level Complexity

- Medicaments, chemicals and cars are among the most complex products, while men's underwear, wood panels and plastic ornaments are among the least complex ones.

Country-level Capability

- Western Europe converged toward the U.S. in the 1960s, while Africa and South Asia lagged.
- East Asian economies (e.g. Korea, Thailand) show rapid capability growth; middle-income regions (e.g. Argentina, Egypt) display only limited catch-up.

The estimation result for capability is used to estimate the Dynamic Spillovers in the next part.

Empirics: Estimate Dynamic Spillovers

From Theory to Empirics

Old assumption: The dynamic of capability follows a generic function: $\dot{N}_{i,t} = H_{i,t}(N_{i,t},\ F^{\ell}_{i,t})$

Relaxed new assumption: Impose a linear AR(1) parametric form for the law of motion, with discrete time at interval Δ:

$$N_{i,t+\Delta} - N_{i,t} = (\phi - 1)N_{i,t} + \beta S_{i,t} + \gamma_i + \delta_t + \epsilon_{i,t}$$

In which:

- $S_{i,t} \equiv \int n \, dF^{\ell}_{i,t}(n)$ is the employment-weighted **average complexity** of production
- β is learning spillover effect
- γ_i , δ_t is country and time fixed effects

Empirical strategy

Using the estimated countries' **capability** to estimate the **dynamic spillovers** with the following baseline specification:

$$N_{i,t+\Delta} = \beta S^x_{i,t} + \phi N_{i,t} + \gamma_i + \delta_t + \epsilon_{i,t}$$

Empirical challenges:

- Cannot directly observe $S_{i,t}$ with employment-sector allocation data
  Solution: Use the export-weighted average complexity instead (proxy $S^x_{i,t}$).
- Endogeneity due to correlation between shocks to country's capability N_i and its average complexity S_i at period t (e.g., R&D or education policy)
  Solution: Use the entry of **other countries** into WTO as an IV to shift exports' complexity

Empirical strategy: Construction of IV

Sources of variation: Based on the theoretical model, the change in country i's average export complexity following a partner country's WTO accession operates through two main channels:

- (i) **Sector-level price effects**: changes in relative prices across sectors that alter country i's export composition toward goods of different complexity.
- (ii) **Aggregate price effects**: changes in overall price indices and expenditure shares across destinations that reallocate global demand among exporters.

⇒ The authors propose two shift-share IVs:

$$Z^{I}_{i,t} = \sum_{c \neq i} \sum_{\tau} s^{I}_{ic\tau,t} \times \mathbf{1}\{\text{country } c \text{ joins the WTO at date } \tau\}$$

$$Z^{II}_{i,t} = \sum_{c \neq i} \sum_{\tau} s^{II}_{ic\tau,t} \times \mathbf{1}\{\text{country } c \text{ joins the WTO at date } \tau\}$$

with the "shares" $s_{ic\tau,t}$ captures the exposure at date t of country i's average complexity $S^{x}_{i,t}$ to the WTO entry event via its impact on either sector- or aggregate-level price indices.

Empirical strategy: Construction of IV

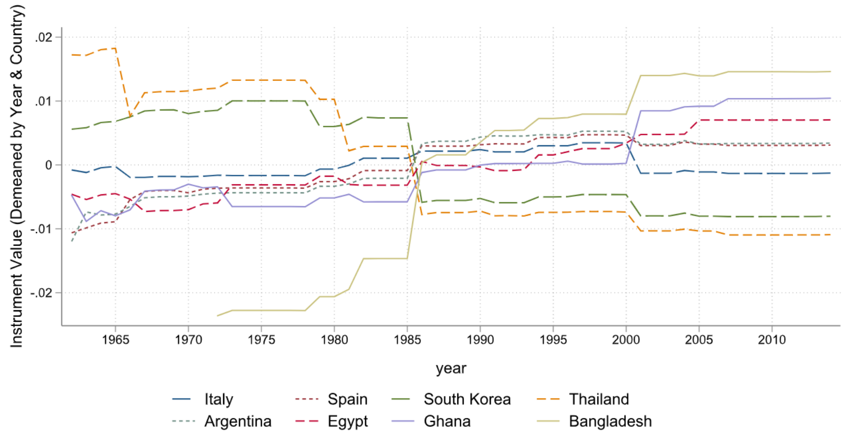

Figure 3: Time path of the IV $(Z^{l}_{i,t})$

Estimation results

- Both IV specifications show positive and significant coefficient estimates on the average complexity of the export mix, $i.e. \beta > 0$
  $\Rightarrow$ Producing **more complex goods raises a country's capability growth**
- Simple OLS estimates are much smaller than IV estimates, showing that endogeneity can bias β downward
  $\Rightarrow$ "bad" policies that **retard capability growth** can, at the same time, **shift resources into complex sectors**.
- **Additionally**, RF regression shows that the entry into the WTO of countries that compete more with country i in sectors and markets where i sells the most complex goods **can slow the capability growth of** i

Estimation results

	Average complexity $S^x_{i,t}$		Country Capability $N_{i,t+\Delta}$			
	(1) FS	(2) FS	(3) OLS	(4) IV ($Z^I_{i,t}$)	(5) IV ($Z^I_{i,t}$, $Z^{II}_{i,t}$)	(6) RF ($Z^I_{i,t}$, $Z^{II}_{i,t}$)
WTO entrant IV $Z^I_{i,t}$	−0.647***	−0.151				−0.154***
(Product-destination level)	(0.214)	(0.224)				(0.0511)
WTO entrant IV $Z^{II}_{i,t}$		−4.075***				−0.624***
(Destination level)		(0.779)				(0.219)
Average complexity $S^x_{i,t}$			0.00902**	0.366**	0.279***	
			(0.00389)	(0.147)	(0.0870)	
Initial capability $N_{i,t}$			0.934***	0.831***	0.856***	0.932***
			(0.0208)	(0.0477)	(0.0353)	(0.0209)
Country and year FEs	Yes	Yes	Yes	Yes	Yes	Yes
Observations	7,617	7,617	6,872	6,872	6,872	6,872
R^2	0.586	0.592	0.987	0.622	0.707	0.987
Clusters	1,588	1,588	1,438	1,438	1,438	1,438
CD F-Stat				30.15	37.25	
KP F-Stat				8.538	8.767	

Notes: Columns 1 and 2 of this table report estimates of α_1 and α_2 in equation (17) by regressing the average complexity of country i's export mix in year t, $S^x_{i,t}$, on our two WTO entry instruments, $Z^I_{i,t}$ and $Z^{II}_{i,t}$, as well as country and year fixed effects. Instruments defined in equations (15) and (16) constructed from data on WTO entry events and the complexity-weighted overlap between i and the WTO-entrant's export mixes 5-years prior to entry. Measures of complexity n^k_t calculated using the linear probability model estimation of equation (12). Columns 3–6 report estimates of β and ϕ in equation (14) by regressing capability of country i in $t+5$, $N_{i,t+\Delta}$ with $\Delta = 5$, on the average complexity of i's export mix, $S^x_{i,t}$, initial capability, $N_{i,t}$, and country and year fixed effects, using the baseline measures of complexity n^k_t and capability $N_{i,t}$ from the same linear probability model. Columns 4 and 5 instrument average complexity of country i's export mix, $S^x_{i,t}$, by the two WTO entry instruments $Z^I_{i,t}$ and $Z^{II}_{i,t}$. Column 6 reports the reduced form regression corresponding to Column 5. Standard errors clustered at the 5-year-period-country level. *, ** and *** denote statistical significance levels of 10%, 5% and 1%, respectively.

Figure 4: Changes in capability and industrial structure

Estimation results

	Country capability $N_{i,t+\Delta}$						$\ln GDP_{i,t+\Delta}$
	(1) Baseline	(2) Recenter IV	(3) No WTO Entrants	(4) Fixed n_0^k in IV	(5) Poor Countries	(6) Rich Countries	(7)
Average complexity $S_{i,t}^x$	0.279***	0.311***	0.466**	0.307**	0.214**	0.239**	0.905**
	(0.0870)	(0.105)	(0.200)	(0.153)	(0.0908)	(0.0952)	(0.409)
Initial capability $N_{i,t}$	0.856***	0.847***	0.746***	0.848***	1.073***	0.780***	
	(0.0353)	(0.0397)	(0.0584)	(0.0499)	(0.0458)	(0.0437)	
lnGDP per capita $GDP_{i,t}$							0.758***
							(0.0327)
Country and year FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,872	6,872	2,806	6,872	2,812	2,801	6,107
R^2	0.707	0.679	0.545	0.682	0.743	0.670	0.589
Clusters	1,438	1,438	591	1,438	595	586	1,269
CD F-Stat	37.25	28.63	11.98	9.552	15.01	55.77	64.98
KP F-Stat	8.767	6.955	4.560	2.571	6.277	7.815	17.11

Notes: This table reports estimates of β and ϕ in equation (14) by regressing capability of country i in $t+5$, $N_{i,t+\Delta}$ with $\Delta = 5$, on the average complexity of i's export mix, $S_{i,t}^x$, initial capability, $N_{i,t}$, and country and year fixed effects, using the baseline measures of complexity n_t^k and capability $N_{i,t}$ from the linear probability model estimation of equation (12). All columns use the two-instrument IV strategy to instrument for $S_{i,t}^x$. Column 1 reports our baseline estimates (Column 5 of Table 2). Column 2 recenters both IVs by drawing from a DGP for WTO entry 1000 times, as described in footnote 29, and subtracting off the mean value of the 1000 draws for each *it* pair. Column 3 re-estimates $N_{i,t}$ and n_t^k using only countries who do not enter the WTO during our sample period, 1962–2014, and also excludes these countries from the regression sample (the instrument is still formed by exploiting the many WTO entry events and the export overlap of the non-entrants sample with the WTO entrants). Column 4 constructs the instruments using a fixed value of complexity, the value of n_t^k in the first year product k appears, to weight the export overlap with WTO entrants. Columns 5 and 6 split the sample by poor and rich countries, defined as whether the country-level mean of log real GDP per capita across all years (using RGDPE from the Penn World Tables 9.0, Feenstra *et al.*, 2015) is above or below the sample median for that object. The median split is identical if log real GDP per capita is first demeaned by year before taking country means. Column 7 replaces the dependent variable capability by log GDP per capita (again using RGDPE from the Penn World Tables 9.0). Standard errors clustered at the 5-year-period-country level. *, ** and *** denote statistical significance levels of 10%, 5% and 1%, respectively.

Figure 4: Changes in capability and industrial structure - Robustness checks

Counterfactual analysis: Trade Impact

Back to the Main Question: Losses or Gains from Trade

- Previous section documented positive estimation results for **dynamic spillovers**: producing more complex goods will benefit the economy.
- **HOWEVER**, is it easy to shift the economy towards the "good" sectors?
- Recall our **Proposition 2** (inverted ladder economy): if more complex sectors also systematically face harsher international competition, openness to trade brings **pervasive dynamic losses**.
  $\rightarrow$ Need to examine whether **pervasive dynamic losses** or **gains** is more relevant in practice.

Counterfactual Analysis

Idea: if a country were to go back to autarky from 1962 onwards, what would be the consequences for its capability and welfare?

Construction of the autarkic equilibrium: for each country i and year t, first setting the counterfactual autarkic capability to the value observed in the initial equilibrium: $(N_{i,1962})' = N_{i,1962}$, then follow the next steps:

1. **Which goods are produced at each date t?**
   The autarkic set of goods country i can produce should still satisfy $n_t^k \leq (N_{i,t})'$
2. **What is the productivity of goods produced at date t?**
   For each good k, the counterfactual productivity $(A_{i,t}^k)'$ is either (i) retain their observed productivity if the good exists, or (ii) new values from a log-normal distribution if the good is unproduced.
3. **What is the future capability at date $t + \Delta$?**
   With the new productivity draws, solve for autarkic prices, consumption, employment allocation, and update factual capabilities $(N_{i,t})'$

Counterfactual Analysis: Parameters choice

Table 1: Baseline economy

Parameter	Value	Choice calibration
Panel A: Nested CES preferences		
σ	2.7	Broda and Weinstein (2006)
ϵ	1.36	Redding and Weinstein (2024)
Panel B: Dynamic spillovers		
β	0.279	Authors' estimate
ϕ	0.856	Authors' estimate

Counterfactual Analysis: Consequences of trade

The authors define two measurements for trade gains: static and dynamic

- **Total gains from trade:**

$$GT_{i,t} = 1 - \frac{(C)'}{C}$$

with C is the aggregate consumption, and $(C)'$ is the counterfactual autarkic equilibrium.

- **Static gains from trade:**

$$GT_{i,t}^{Static} = 1 - \frac{(C)''}{C}$$

with $(C)''$ is from the second counterfactual, where capabilities $(N_{i,t})''$ is the same as in real-life trade equilibrium $\Rightarrow$ The outcome difference only comes from the productivity of produced goods between autarky and trade.

- **Dynamic gains from trade:**

$$GT_{i,t}^{Dynamic} = GT_{i,t} - GT_{i,t}^{Static} =$$

Counterfactual Analysis: Consequences of trade

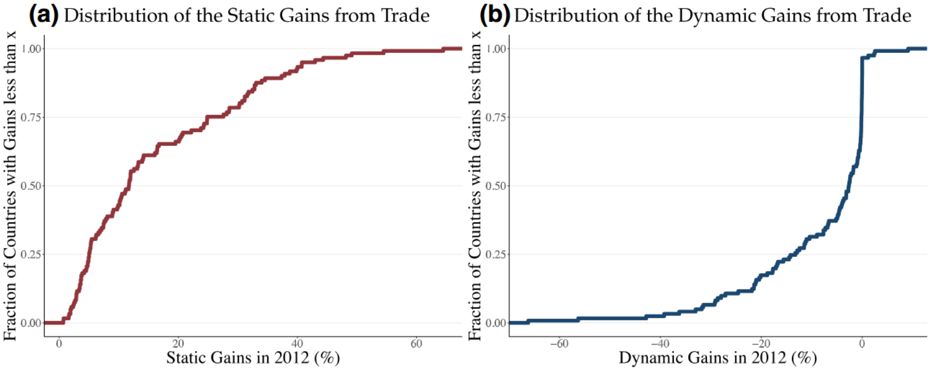

FIGURE 5

Welfare consequences of international trade

Notes: (a) The distribution of the static gains from trade, $GT^S_{i,t}$, as described in equation (18), in 2012 is reported. (b) The distribution of the dynamic gains from trade, $GT^D_{i,t}$, as described in equation (19), for the same countries and year is reported

Figure 5: Welfare consequences of international trade

Counterfactual Analysis: Consequences of trade

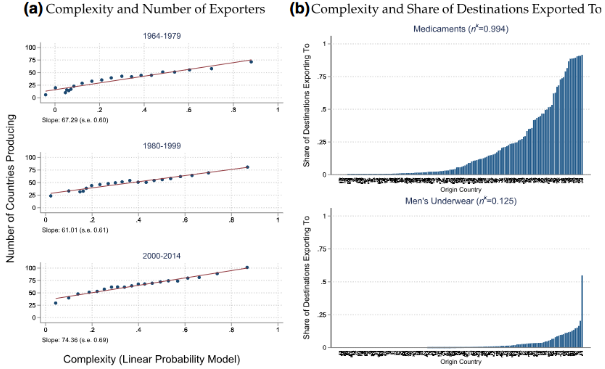

FIGURE 6

Capability-enhancing goods face tougher foreign competition

Notes: This figure plots measures of foreign competition against our measures of product complexity from the linear probability model estimation of equation (12), as described in Section 4.1. (a) Binscatters of the number of countries exporting on complexity, absorbing year fixed effects and pooling observations by time period are plotted. Regression slope and standard error shown under each figure. (b) Further explores variation in the share of destinations a country sells to by focusing on one high complexity good (medicaments) and one low complexity good (men's underwear) and plotting a bar graph of the share of destinations sold to over origin countries averaged over the period 2000 to 2014. Titles report average complexity n^k over same period

Figure 5: Capability-enhancing goods face tougher foreign competition

Robustness

A lot of robustness checks!

Empirical analysis: address concerns about the exclusion restrictions in IVs

- Dropping WTO entrants: re-estimate using only countries that were already WTO members
- Alternative share constructions: fix product complexity at its first observed values
- Heterogeneity between rich and poor countries: split the sample into HICs and LICs

Structural analysis

- Alternative calibration of the baseline economy $(\beta, \phi, \sigma, \epsilon)$: unchanged
- Alternative measure of capacity and complexity: using a logit model instead of LPM, yields small losses for less countries (86%)
- Adding global input-output linkages: magnify losses

Discussion

Discussion

Theoretical framework

- The labour allocation is not endogenous: agents cannot strategically make labour choice to participate in **more complex sectors**

Empirical support for theoretical assumptions

- Is it really that if complex sectors face more competition, productivity growth decreases? Causally estimate whether sectors exposed to stronger Chinese import competition experience lower employment or productivity growth, especially in high-complexity sectors.
- Why do more complex sectors get higher competition?

Thank you!