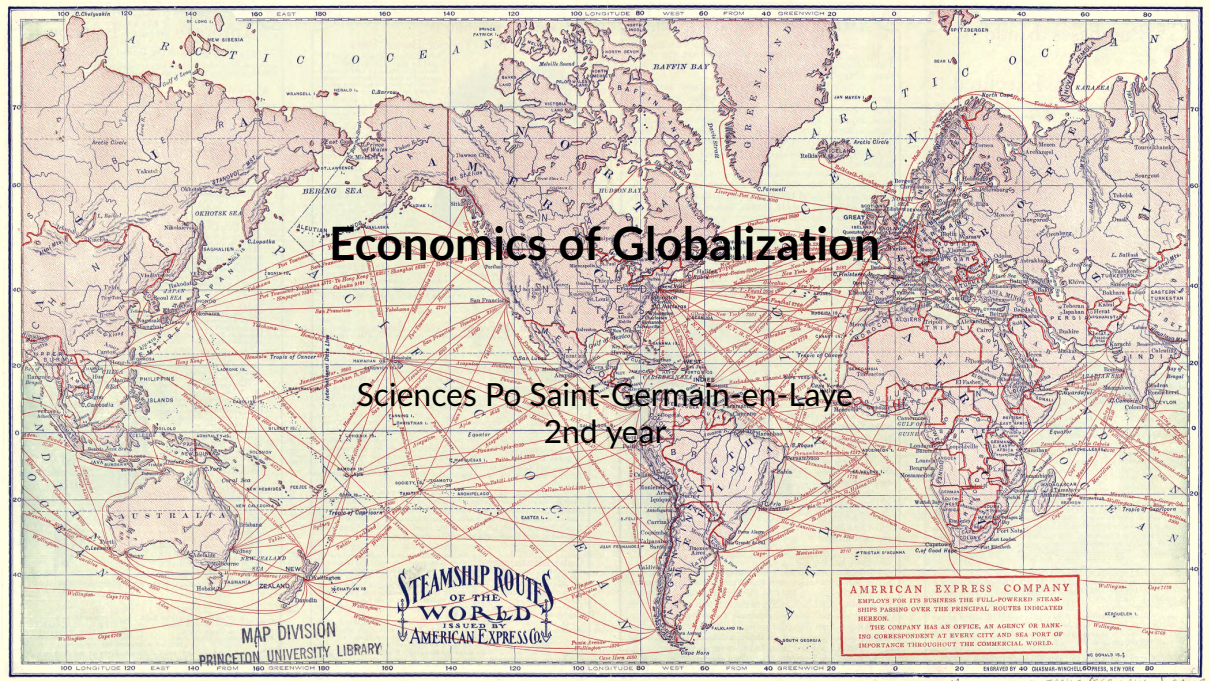

Economics of Globalization
Sciences Po Saint-Germain-en-Laye
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Globalization news

Full article here

The Big Read Global Economy + Add to myFT

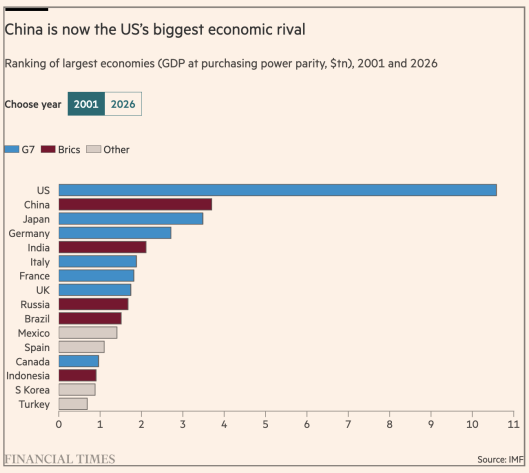
Brics on the rise

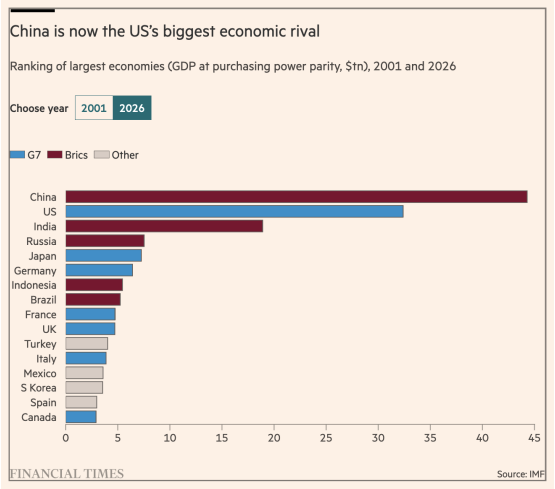
The grouping accounts for a bigger share of the world economy than the G7



Globalization news

Full article here





Papers for class presentation

- *Is the Global Economy Deglobalizing? And if so, why? And what is next?* (Goldberg and Reed, 2023) **(22/09)**
- *Trade and Inequality in Europe and the US* (Dorn and Levell, 2024) **(29/09)**
- *The Political Economy of Industrial Policy* (Juhász and Lane, 2024) **(06/10)**
- *Carbon Border Adjustments, Climate Clubs, and Subsidy Races When Climate Policies Vary* (Clausing and Wolfram, 2023) **(13/10)**
- *Are Developed Countries Outsourcing Pollution?* (Levinson, 2023) **(20/10)**
- *The Missing Wealth of Nations: Are Europe and the U.S. net Debtors or net Creditors?* (Zucman, 2013) **or** *The Missing Profits of Nations* (Tørsløv, Wier, and Zucman, 2023) **(03/11)**
- *Economic Sanctions: Evolution, Consequences, and Challenges* (Morgan, Syropoulos, and Yotov, 2023) **(10/11)**
- **Alternatives:** *Eric Williams and William Forbes: copper, colonial markets, and commercial capitalism* (Zahedieh, 2021) **or** *Measuring Extractive Institutions: Colonial Trade and Price Gaps in French Africa* (Tadei, 2018, except 5.2) **(22/09 or 06/10)**

This week

- What is the state of globalization?
- How did we end up here?
- Reference for this course: Goldberg (2023).

This week

A lot of graphs but a few facts

- Fact 1: Globalization is an old phenomenon.
- Fact 2: It has grown rapidly in the post-WW2 era with changes in geography and in composition.
- Fact 3: ICT and transport technologies drove the rise of global integration. Trade policy also played an important role.
- Fact 4: Global Value Chains (GVCs) and value-added trade play a key role in today's globalization.
- Fact 5: Globalization relies on institutions.

Long-run evidence about globalization



Mesopotamian Clay Tablet



Ennion Glass $\approx 0\text{–}50$

Long-run evidence about globalization

Silk Roads (≈ 0–1500)



Globalization in the long run

TABLE 2.1. Interregional trade flows, ca. 1000.

From \ To	Western Europe	Eastern Europe	Islamic World	Central Asia	Sub-Saharan Africa	South Asia	Southeast Asia	East Asia
Western Europe	⊠	Swords	Slaves, swords	—	—	—	—	—
Eastern Europe	Slaves, furs, silver	⊠	Slaves, furs, silver	Furs, swords	—	—	—	—
Islamic World	Pepper, spices, textiles, silk, silver	Textiles, silver	⊠	Textiles	Salt, textiles, manufactures, swords, horses	War horses	Gold	Spices
Central Asia	—	Silver	Paper, silver, slaves	⊠	—	Silver, reexports from China and Muslim world	—	Horses
Sub-Saharan Africa	—	—	Gold, slaves, ivory, rice	—	⊠	Timber, iron	—	—
South Asia	—	—	Pepper, spices, silk, teak, textiles	Pepper, textiles	Textiles	⊠	Textiles, pepper	Textiles
Southeast Asia	—	—	Spices, perfumes	—	—	Silk, spices, teak, rice, rubies	⊠	Perfumes, spices, sandal-wood
East Asia	—	—	Silk, porcelain	Silk, tea	—	Silk, porcelain	Silk, copper, cash	⊠

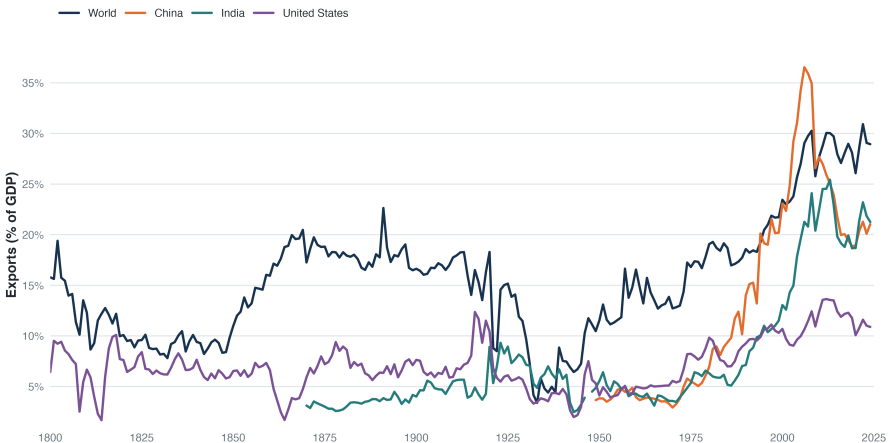
Long-run evidence about globalization

Steamship Routes around 1900



Long-run evidence about globalization

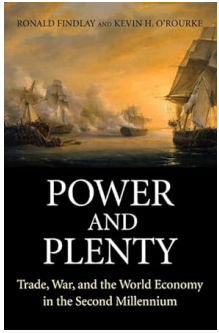
Exports from 1800 to today

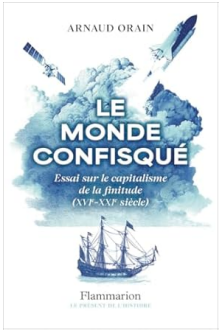


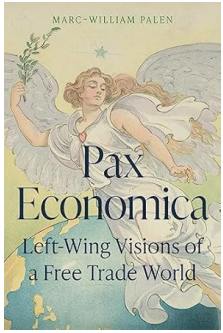
Exports of goods and services as a share of GDP, 1800-2024. World = total exports divided by total GDP across the same available economies each year.
World coverage rises from 3 economies in 1800 to 211 in 2024, so changing composition matters for early levels. Forecasts and audited USD-series errors are excluded.
Source: Global Macro Database, release 2026_06.

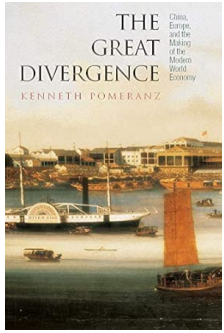
Long-run evidence about globalization

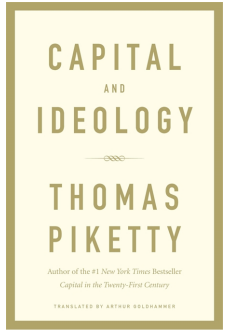
Five great books





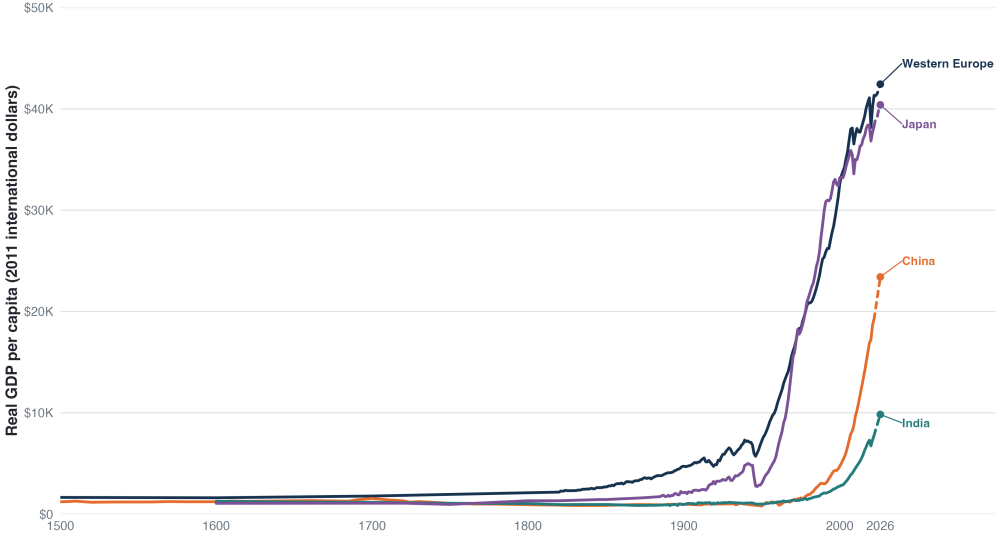






Long-run evidence about globalization

The great divergence



Real GDP per capita in 2011 international dollars.

Long-run evidence about globalization

The great divergence

- Until 1750–1800, levels of development were similar in Western Europe, China, Japan, and India.
  - What explains the great divergence?
  - There is a huge amount of literature; the causes are multifactorial (access to energy, markets, institutions, culture, colonization, property rights, political organization, etc.).

- Pomeranz insists on the “ghost acres” that allow ecological limits to be reduced.

- Access to additional acres in the Americas and the exploitation and organization of an international division of labor allow Western Europe to import the primary commodities necessary for profits at home.

$\longrightarrow$ Ghost acres are $\approx 2\times$ the size of the UK: globalization through colonialism, exploitation and plunder allowed the exceptional growth in Europe.

Long-run evidence about globalization

Balance of payments (BoP)

- Summary of countries' transactions with the rest of the world.
  - Trade, Investment, Migration, MNEs, etc.
  - Extension of national accounts to the international economy.

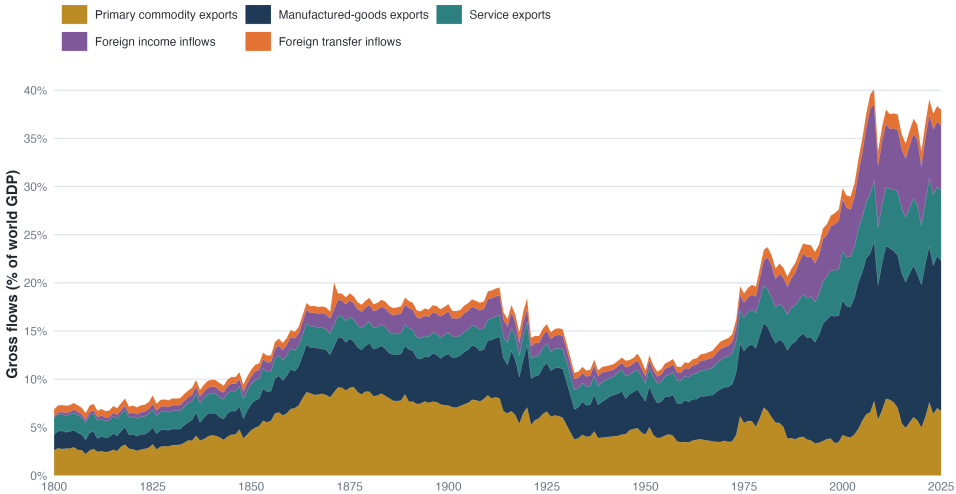
- Current balance = Current account + Capital account
  - **Current account** = **Trade balance** (do I export more than I import?) + **Factor income** (do I repatriate more profits from my MNEs than MNEs producing at home repatriate to their countries?) + **Transfers** (remittances, foreign aid)
  - Capital account = Change in ownership of foreign assets (small)

- Key equation:

$$\underbrace{\text{Gross National Income (GNI)}}_{\text{Income of French residents}} = \underbrace{\text{Gross Domestic Product (GDP)}}_{\text{Value added produced in France: } C+I+G+(X-M)} + \underbrace{\text{Net Factor Income}}_{\text{French abroad} - \text{Foreigners in France}}$$

Long-run evidence about globalization

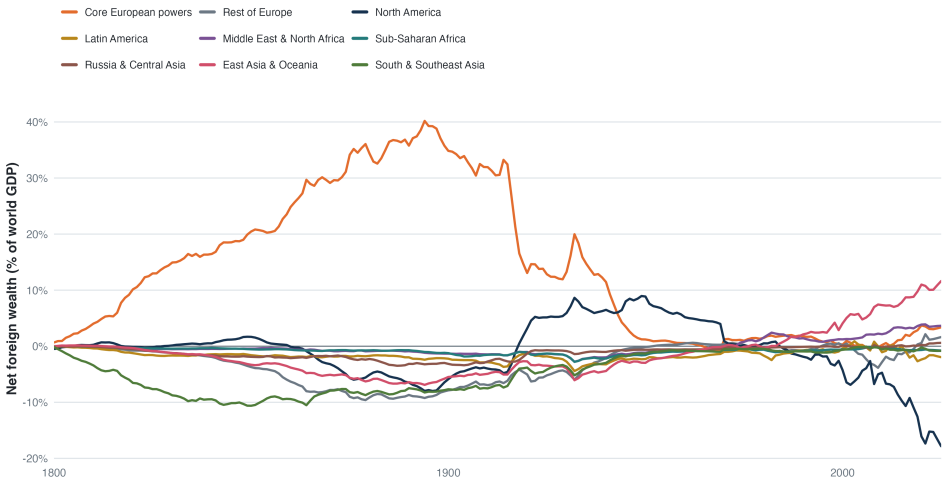
Balance of payments (BoP)



Gross one-way international flows, expressed as shares of world GDP. The stacked height is the sum of exports, income receipts, and transfer receipts.
Source: World Historical Balance of Payments Database (WBOP), Nievas and Piketty (2025), 2025.

Long-run evidence about globalization

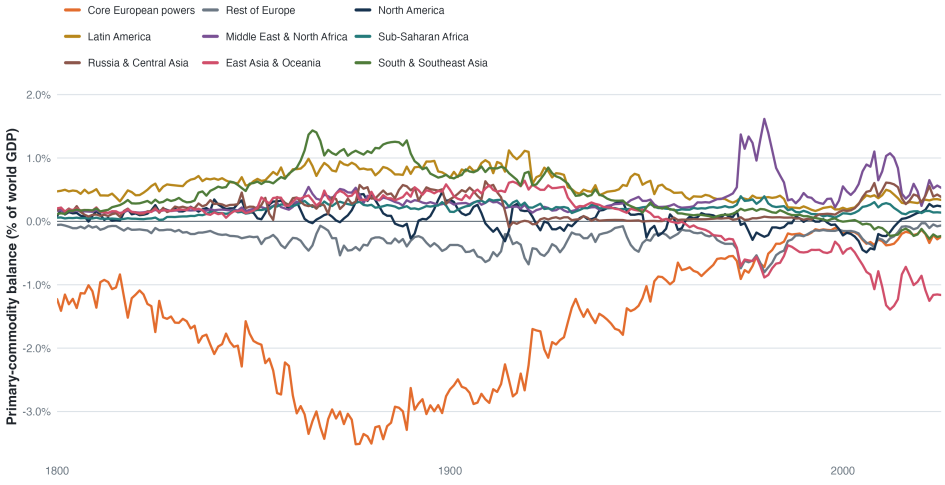
Balance of payments (BoP): Foreign wealth in GDP



Each line is the region's position divided by world GDP.
Core European powers are Britain, France, Germany, and the Netherlands.
Source: World Historical Balance of Payments Database (WBOP), Nievas and Piketty (2025), 2025.

Long-run evidence about globalization

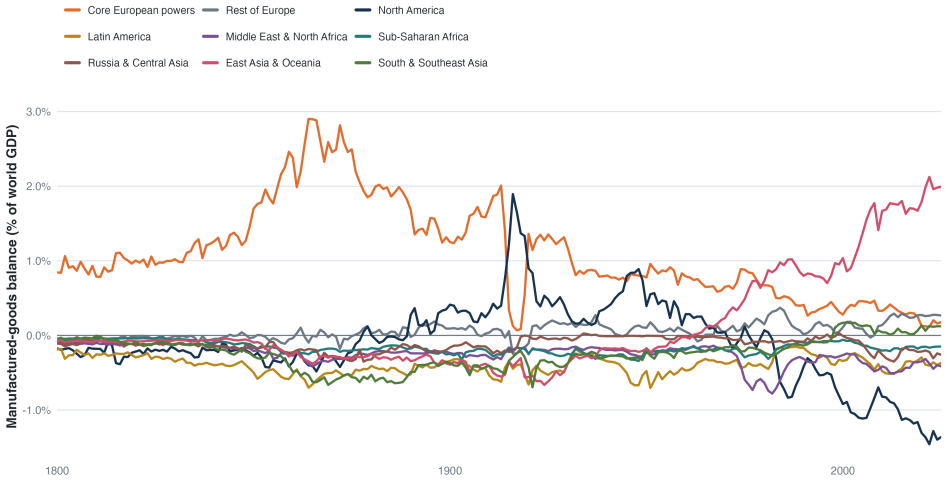
Balance of payments (BoP): Primary balance



Each line is the region's position divided by world GDP.
Core European powers are Britain, France, Germany, and the Netherlands.
Source: World Historical Balance of Payments Database (WBOP), Nievas and Piketty (2025), 2025.

Long-run evidence about globalization

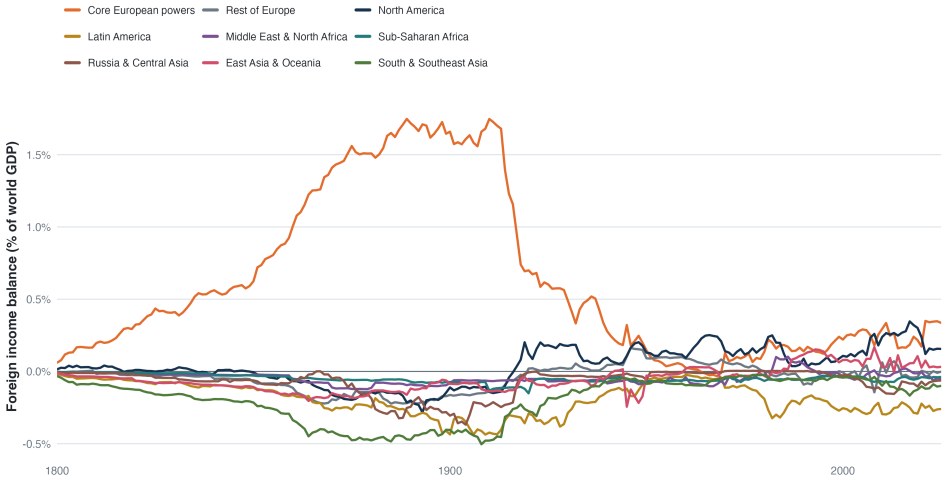
Balance of payments (BoP): Manufactured goods balance



Each line is the region's position divided by world GDP.
Core European powers are Britain, France, Germany, and the Netherlands.
Source: World Historical Balance of Payments Database (WBOP), Nievas and Piketty (2025), 2025.

Long-run evidence about globalization

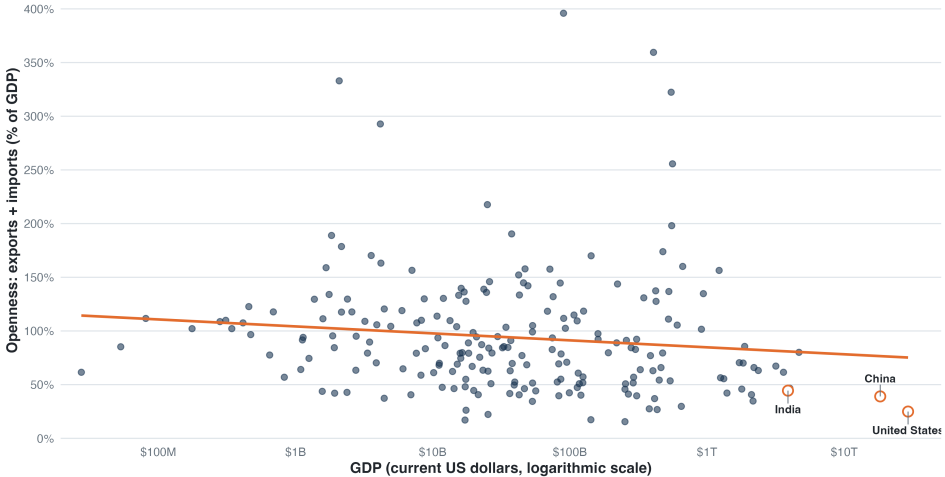
Balance of payments (BoP): Foreign income balance



Each line is the region's position divided by world GDP.
Core European powers are Britain, France, Germany, and the Netherlands.
Source: World Historical Balance of Payments Database (WBOP), Nievas and Piketty (2025), 2025.

Long-run evidence about globalization

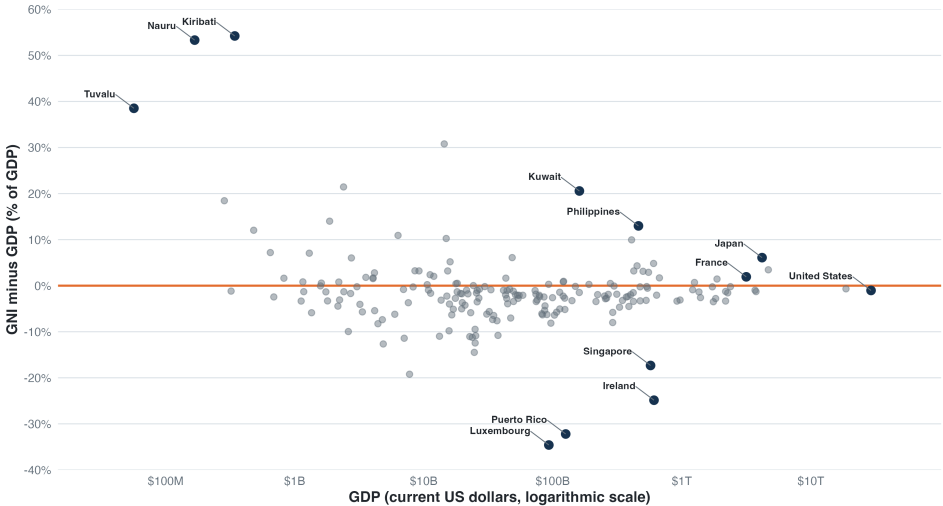
Openness and GDP



Openness is exports plus imports divided by nominal GDP. Data from 2024 economies and territories. The orange line is an OLS fit in log GDP.
Source: Global Macro Database, release 2026_06. Current US dollars

Long-run evidence about globalization

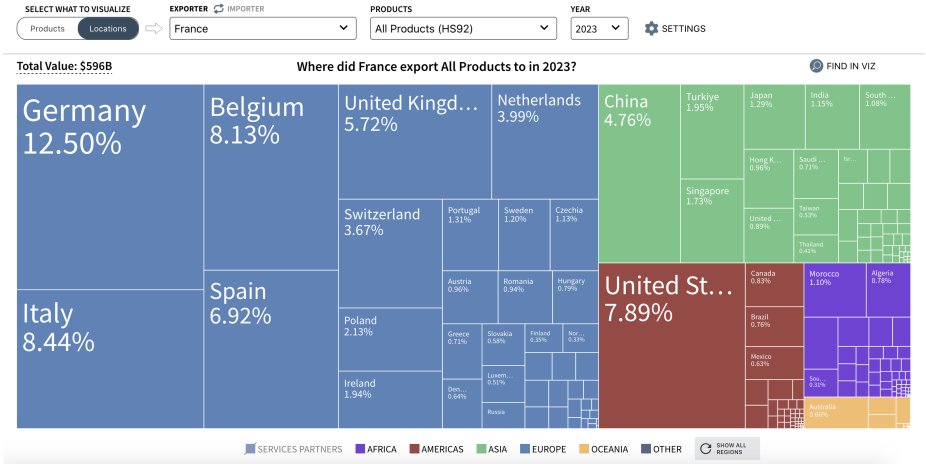
Openness and GDP



The vertical axis shows the GNI-GDP gap directly: 100 x (GNI/GDP - 1). Negative values indicate net primary-income payments abroad.
Source: World Bank, World Development Indicators series (NY.GDP.MKTP.CD) and (NY.GNP.MKTP.CD)

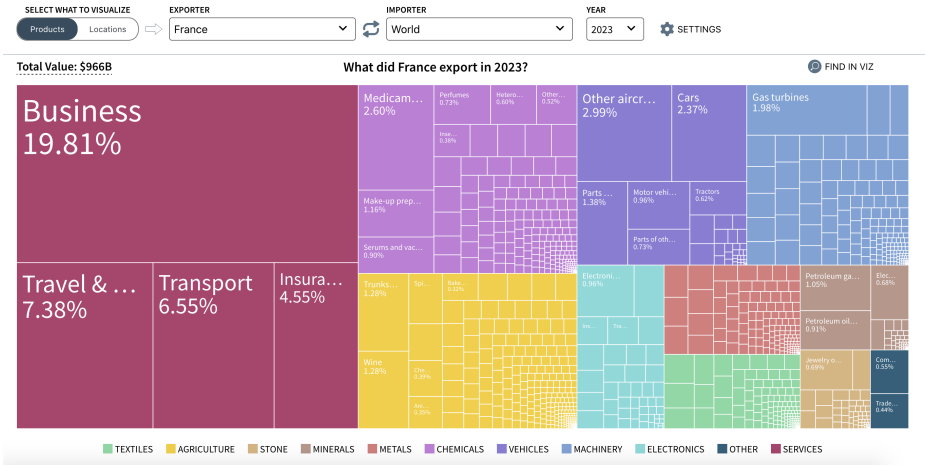
Recent trends in globalization

What does France trade, and with whom? Source: The Atlas of Economic Complexity



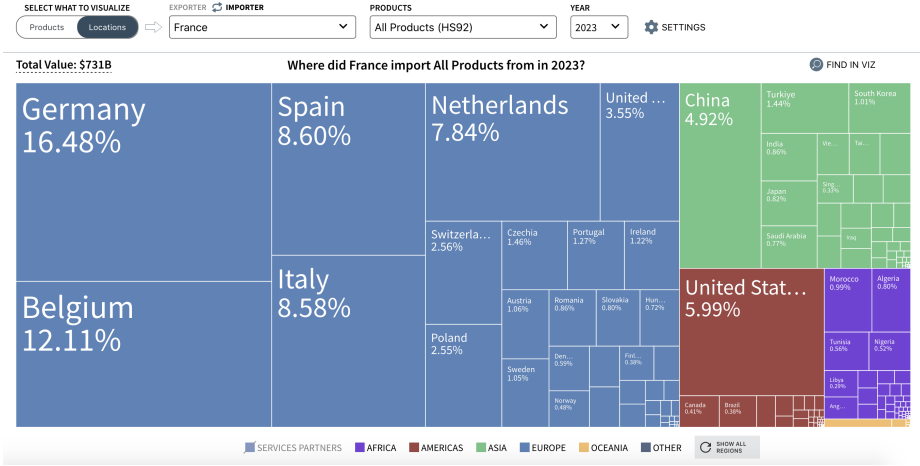
Recent trends in globalization

What does France trade, and with whom? Source: The Atlas of Economic Complexity



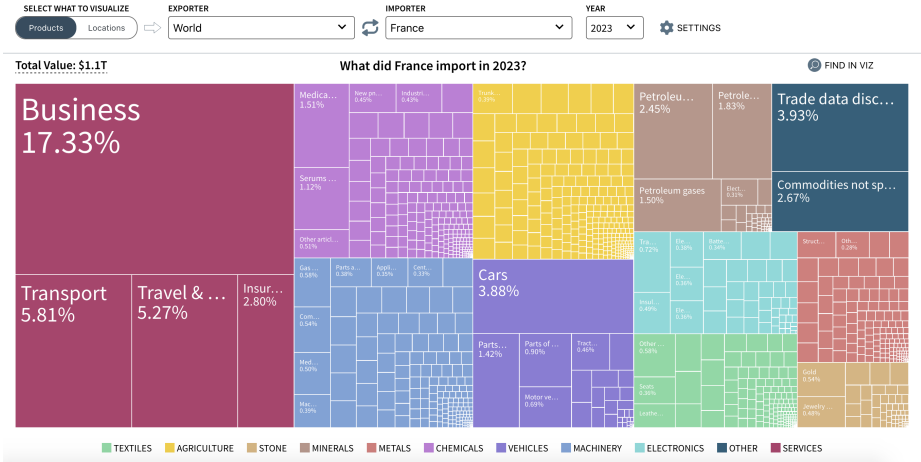
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Recent trends in globalization

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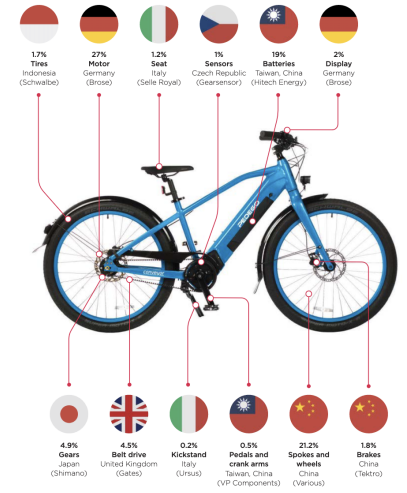
Recent trends in globalization

The fragmentation of production processes: Global Value Chains (GVCs)

- Trade is more and more fragmented. What does it mean?
- The production of a given good is more and more fragmented between firms and countries.
- Firms are looking for the best opportunities to produce: parts and components are then moving across the globe.

Recent trends in globalization

The fragmentation of production processes: Global Value Chains (GVCs)

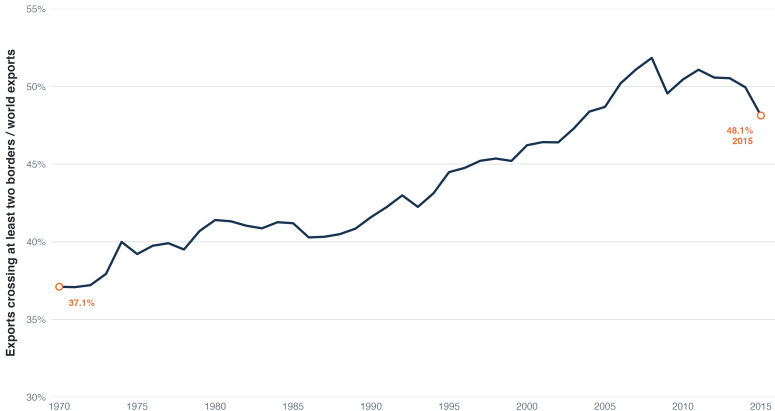


Source: Frothingham 2018.

Note: Diagram shows the percent of total value added from each component.

Recent trends in globalization

Share of World Exports that flow through at least two borders



GVC participation is the share of world exports that flow through at least two borders.
1970-1989 is backcast using changes in 1-VAX from Johnson and Noguera (2017); 1990-2015 uses Eora26 and the Borin-Mancini decomposition.
Source: World Bank, World Development Report 2020, Figure 1.2 and underlying Chapter 1 data workbook.

The fragmentation of production processes: Global Value Chains (GVCs)

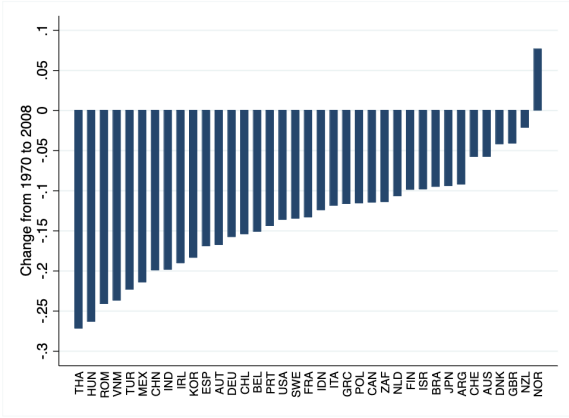
Trade in value added

- Exports and imports do not measure the value added by the exporter.
- Studies suggest that the Chinese manufacturer of the iPhone only adds $\approx$ 3% of the value of the factory-gate price ($\approx$ \$200).
- The rest comes from the value of inputs imported from other countries.
- However, it still counts as \$200 of exports from China to the U.S., artificially increasing China's trade.
- The OECD now tries to measure trade in value added.
- Note that intermediate services add a lot of value added: distribution, transport, finance and insurance, business services, communication and information.

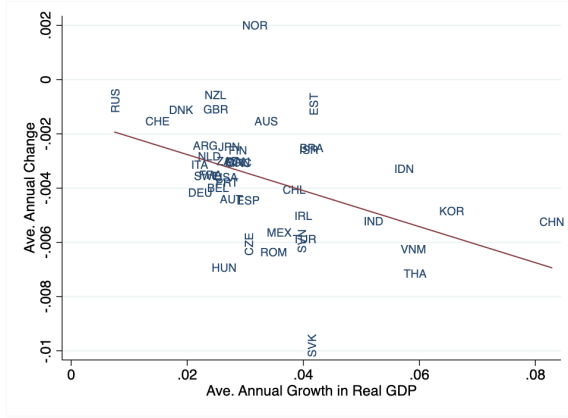
Recent trends in globalization

The fragmentation of production processes: Global Value Chains (GVCs). Source: Johnson and Noguera, 2017

Figure 3: Changes in Ratio of Value-Added to Gross Exports, by Country



(a) Cumulative Changes (1970-2008)

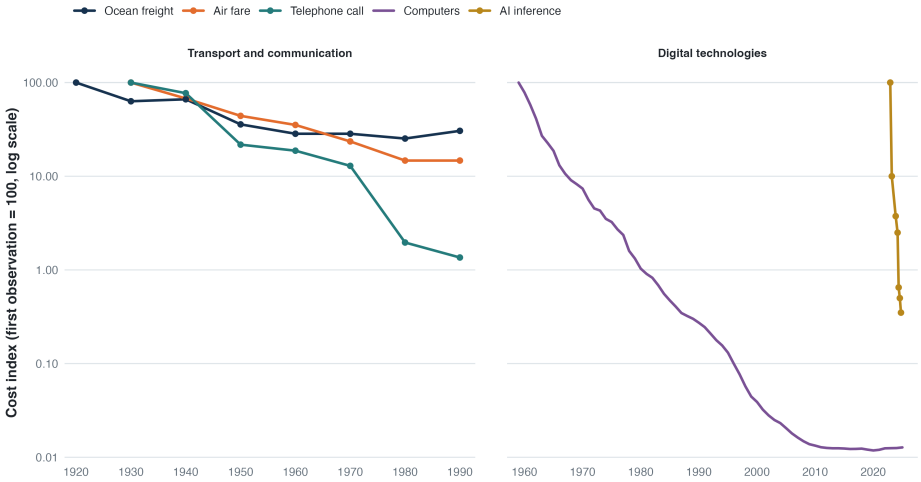


(b) Average Annual Change vs. Average Annual Real

The drivers of the expansion of trade

- Technology
  - ICT (telegraph, phone, mobile phones, the internet) eases communication around the world
  - It eases the diffusion of information.
- Transport costs
  - Many transport innovations (steamship, canals, planes, containers, *etc.*)
- Trade costs
  - Better access to trade finance and insurance; less exchange-rate volatility.
- Trade policy
  - Global organization of trade through GATT and WTO.
  - Regional integration (EU, NAFTA, Mercosur).
  - Political choices matter!

The role of technology



Each cost is indexed to 100 at its own first observation; logarithmic scale..
Sources: World Bank (1992), table 3-4; US BEA, series B935RG; Epoch AI (2025).

The role of technology: the case of transport

- Important innovations in terms of transport and transport infrastructures have always fueled trade.
  - E.g., steamships, canals, maritime chronometers, etc.
  - Steamships reduced sailing time by one-half and might be responsible for half of the trade boom observed at the end of the 19th century.
- The invention of containers is key to understanding the development of world trade.
  - An estimated 700% increase in trade over 20 years (Bernhofen et al., 2016).
  - Way larger effect than trade agreements: port productivity multiplied by 15.

The role of technology: the case of transport

Containerization







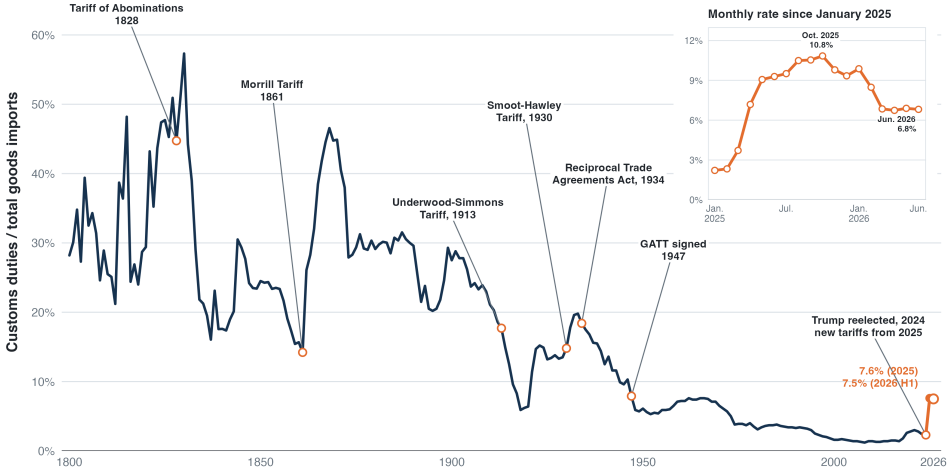

Breakbulk shipping, 1950s



The role of trade policy

- Trade policy consists of the set of tools a government can use to open (or close) its country to trade.
  - More on this in a few classes.
- After WWII, institutions have developed to coordinate trade policies: the GATT and then the WTO but also regional trade agreements such as NAFTA or the EU.
- Countries have access to a variety of tools such as tariffs (taxes on imports), export subsidies, export taxes, and non-tariff barriers (norms, for instance).
- The view among economists is that the reduction of trade barriers cannot be the only driver of trade expansion, particularly in recent periods.

The role of trade policy



Effective tariff = duties as a share of total imports for consumption; the monthly inset uses Census estimated calculated duties.
The main curve is annual through 2025; 2026 is January-June YTD. The inset shows monthly observations from January 2025.
Sources: Irwin (2003), table 1 (1800-1820); U.S. Census Historical Statistics, U211 (1821-1890);
USITC table 1 (1891-2024); USAFacts using Census data (monthly, 2025-2026).

The role of trade policy



Historical series: customs revenue / merchandise imports, unweighted across the Clemens-Williamson 35-country sample; gaps are left unfilled.
From 1989: simple average across economies of WDI's import-weighted applied tariff for all products (TM.TAX.MRCH.WM.AR.ZS). The definition changes at the splice.
Sources: Clemens and Williamson (2004), Figure 1; World Bank, WDR 2020 Figure 1.4 workbook;
World Development Indicators. Latest available year: 2022.

The role of trade policy

- Paradox: tariff are as low as ever, yet trade policy is seen as an important driver of trade and welfare.
- Still, Goldberg (2023) argues that reducing trade barriers matters a lot to boost trade.
  - While tariffs have decreased slowly in developed countries in recent periods, the decrease has been more substantial in developing countries.
  - Global value chains (GVCs) magnify the impact of tariffs (because many borders need to be crossed for one good to be made). This should then magnify the elasticity of trade to tariffs: small tariff changes can have big effects.
  - Non-tariff barriers decreased a lot through the standardization efforts of international institutions and regional agreements.