INTERNATIONAL TRADE

GENEVA GRADUATE INSTITUTE SUMMER PROGRAM: ECONOMIC GLOBALISATION AND FRAGMENTATION

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Trade is back in the spotlight

2 February 2025:

TRADE WAR LOOMS AS TRUMP IMPOSES ROUND OF TARIFFS

Threatens Even Higher Levies if Mexico, Canada or China Follows Suit

This article is by ***Ana Swanson, Alan Rappeport*** *and* ***David E. Sanger.***

WASHINGTON — President Trump on Saturday followed through with his threat to impose stiff tariffs on Mexico, Canada and China, setting the stage for a destabilizing trade war with the United States' largest trading partners.

Mr. Trump hit Canada and Mexico with tariffs of 25 percent on all goods, with a carve-out for Canadian energy and oil exports. Those will be taxed at 10 percent. Mr. Trump also placed a 10 percent tariff on Chinese goods. The levies are to go into effect just after midnight on Tuesday, and will be added on top of existing tariffs.

The president said he was im-

Mr. Trump's weeks of threats to impose tariffs have given Canada, Mexico and China plenty of time to think about ways to retaliate with tariffs of their own. Canada has indicated it will tax Florida orange juice, Tennessee whiskey and Kentucky peanut butter. The decision to hit those products, at least initially, is strategic: They come from states with Republican senators and with voters who elected Mr. Trump in 2024.

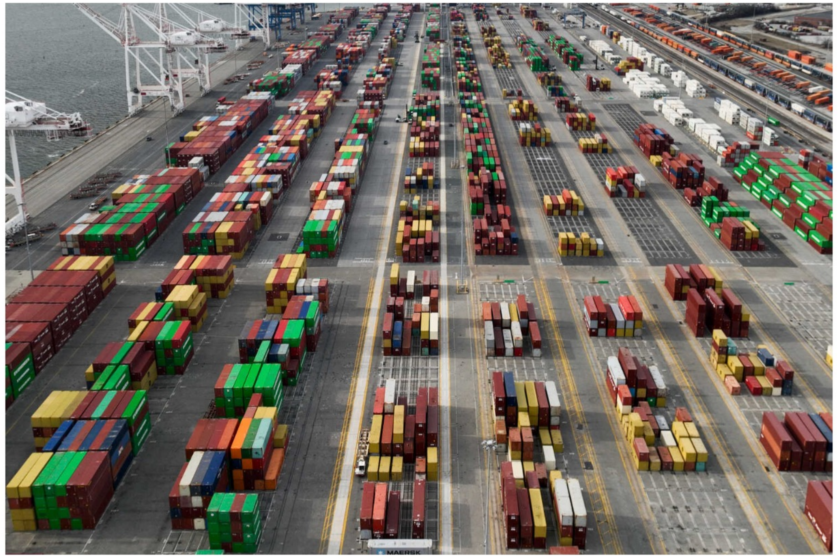
But Mr. Trump's executive orders contained a clause aimed at discouraging governments from fighting back. If Mexico, Canada or China retaliates with their own levies, the orders state that the United States could answer with even higher levies.

And unlike in Mr. Trump's first term when American companies

A Stunned World Reckons With Economic Fallout From Trump's Tariffs

Not even America's closest trading partners were spared by a policy broadside that spooked investors and left policymakers scrambling to formulate responses.

April 3, 2025 . By DAISUKE WAKABAYASHI and RIVER AKIRA DAVIS



Erin Schaff/The New York Times

2 April 2025:

TRUMP ROLLS OUT VAST NEW ARSENAL OF GLOBAL TARIFFS

Says It Will Restore Fairness as He Takes Aim at Adversaries and Allies

By ANA SWANSON and TONY ROMM

WASHINGTON — President Trump unveiled his most expansive tariffs to date in a ceremony at the White House on Wednesday, saying he will impose a 10 percent tariff on all trading partners except Canada and Mexico, as well as double-digit tariffs on dozens of other countries that administration officials said had treated the United States unfairly.

The move was a significant escalation of Mr. Trump's trade fight and is likely to ripple through the global economy, driving up prices for American consumers and manufacturers while inciting retaliation from other nations. While since the Second World War, as the higher tariffs of Mr. Trump's own devising replace the rates that the United States negotiated at the World Trade Organization.

White House officials said pernicious trading practices by other countries had led to large and persistent trade deficits for the United States and had created a national emergency.

Under Mr. Trump's plan, the United States will add a new 34 percent tariff on Chinese goods on top of the 20 percent tariff that he had imposed on Beijing in recent months.

Some of Mr. Trump's steepest

(both from the *New York Times*)

Somebody is not happy…

"We've been the foolish country for so long with this free trade, but it's not free trade because it's - you know, just doesn't work. I mean, it's not working. You look at the deficits we have."

(Trump, March 7, 2016)

April 2, 2025
Donald Trump announces "reciprocal" tariffs on a long list of countries

Some questions

- Is being open to trade "good" for a country?
- Is it a problem if you import more than you export?
- What can you do about it? What are the tools of trade policy?
- How do tariffs affect the economy?
- What are the rules that govern trade policy?
- Will they survive?

Agenda for this session

Motivation: Rising tensions over trade

Trade globalisation

- some facts
- the law of gravity
- why do countries trade?

Trump's Trade War

- economic analysis of tariffs

The Institutions of International Trade

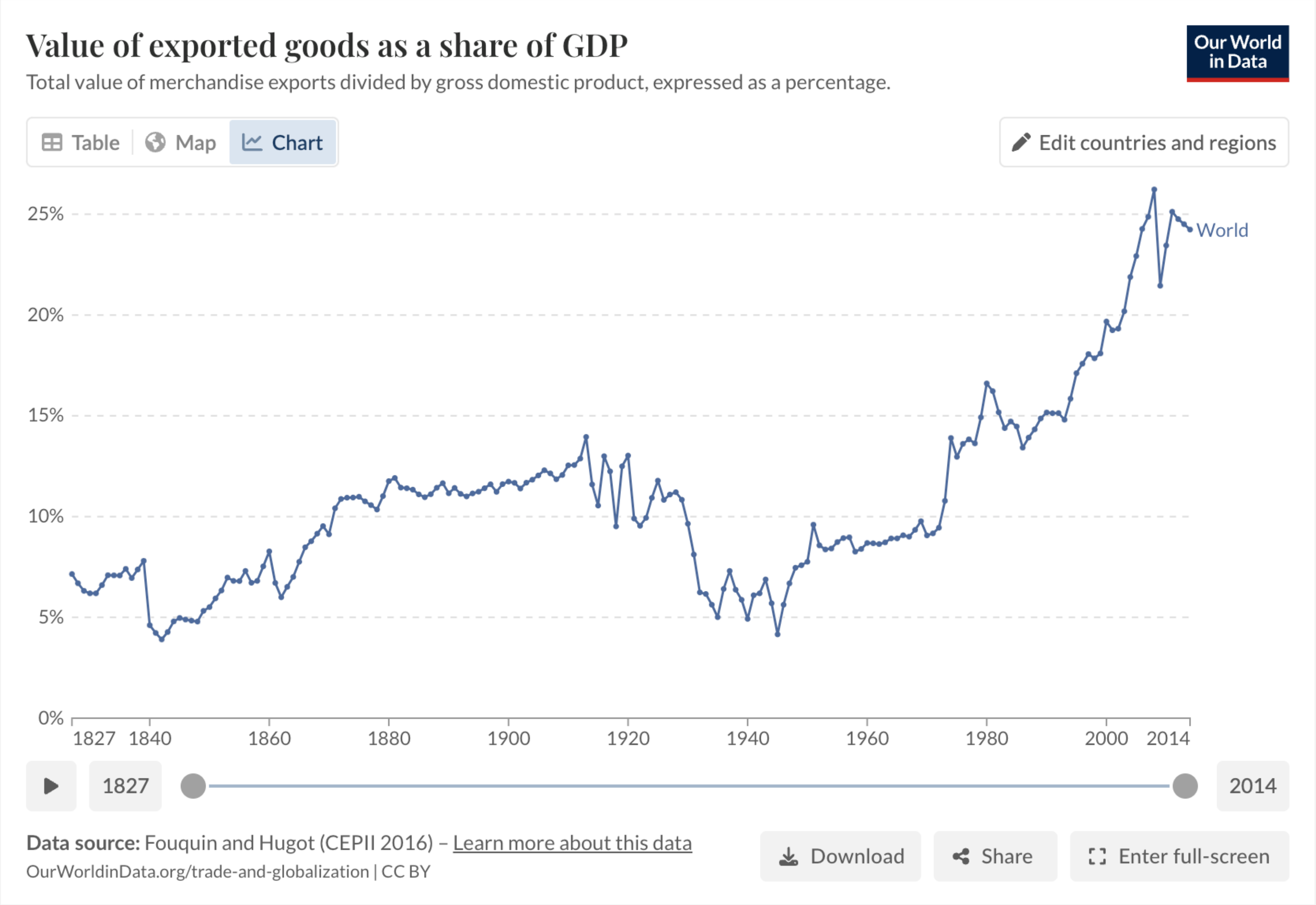
What is (economic) globalization?

Increased economic integration of different countries/regions:

- Rising exchange of goods and services (“trade globalization”)
- Rise of cross-border financial flows (“financial globalization”)
- Rising mobility of production factors (capital, labor)

We’ll mostly talk about the first one in this session.

Globalization is not a recent phenomenon



"First wave" of globalization: 1870-1930

(peak in 1914)

"Second wave" of globalization:

1950-now

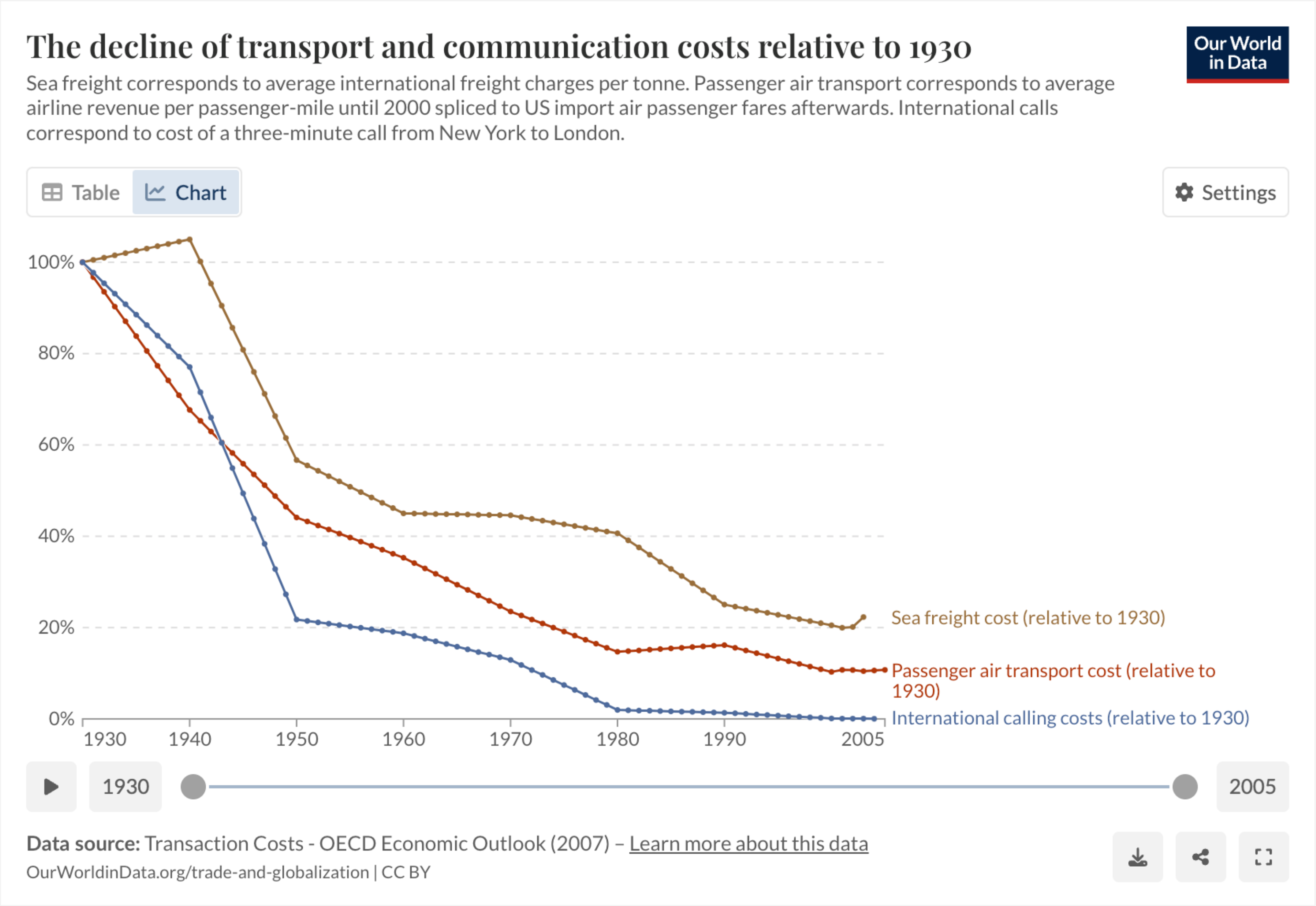
The first wave of globalization

The industrialized world experienced a first wave of globalization between 1870 and 1914:

« What an extraordinary episode in the economic progress of man that age was which came to an end in August, 1914! … The inhabitant of London could order by telephone, sipping his morning tea in bed, the various products of the whole earth, in such quantity as he might see fit, and reasonably expect their early delivery upon his doorstep; he could at the same moment and by the same means adventure his wealth in the natural resources and new enterprises of any quarter of the world, and share, without exertion or even trouble, in their prospective fruits and advantages; or he could decide to couple the security of his fortunes with the good faith of the townspeople of any substantial municipality in any continent that fancy or information might recommend. »

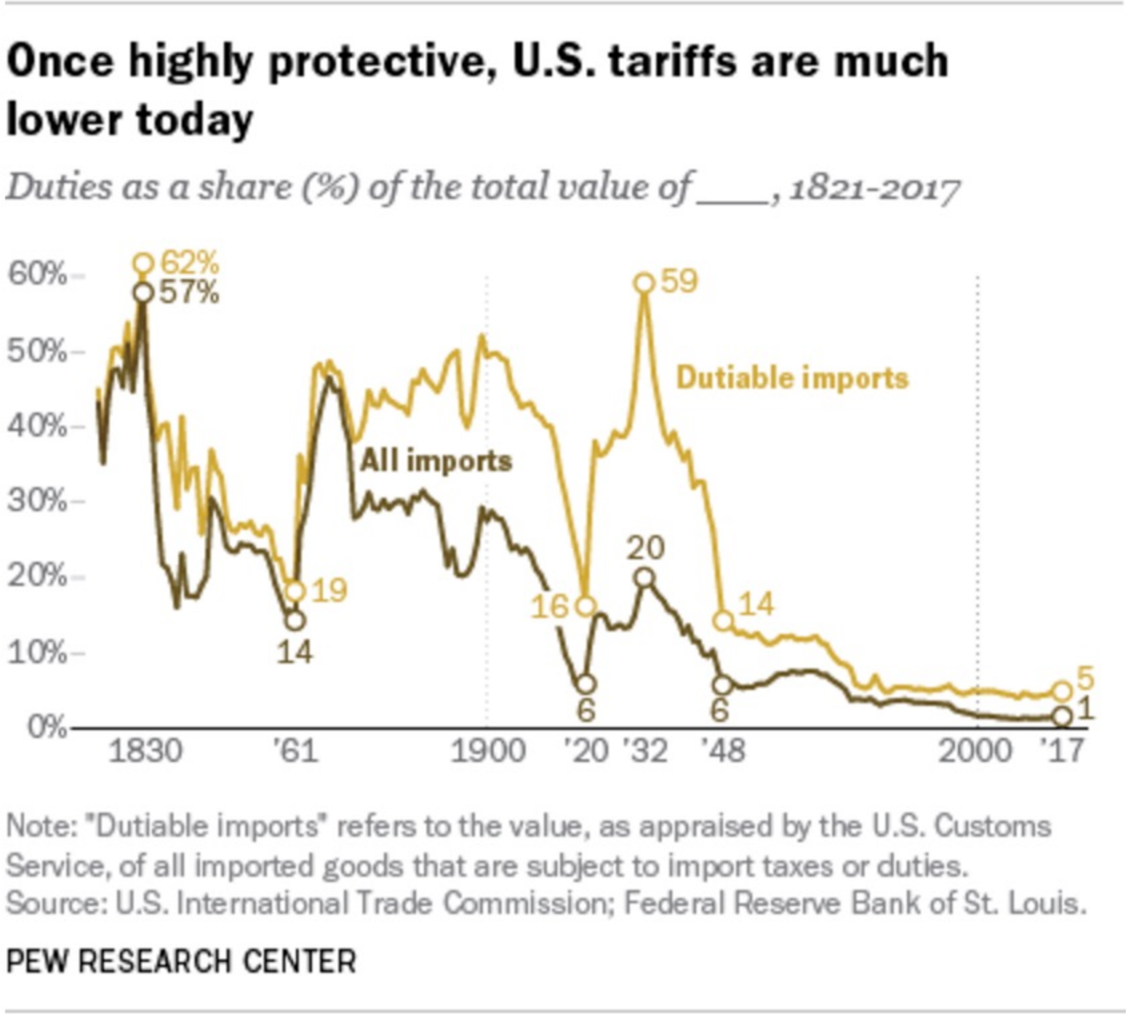
John Maynard Keynes, Chapter II Europe Before the War, in *The Economic Consequences of the Peace* (1920).

Second wave of globalization



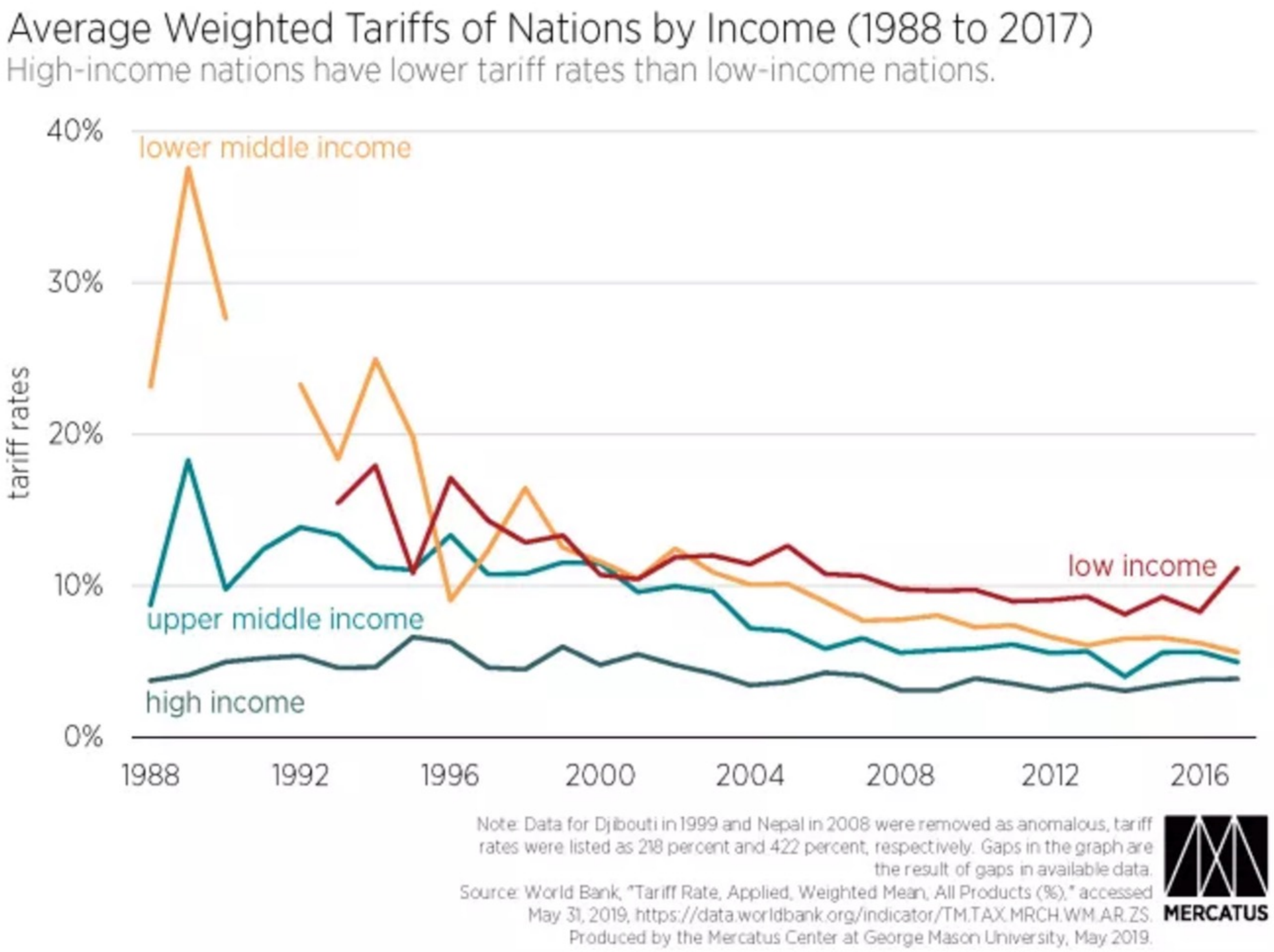
Transport and communication costs, 1930-now

… and trade liberalization



Imports duties as a fraction of total value of dutiable imports (light) or all imports (dark)

Up to 2017, tariffs have converged to low levels across the world

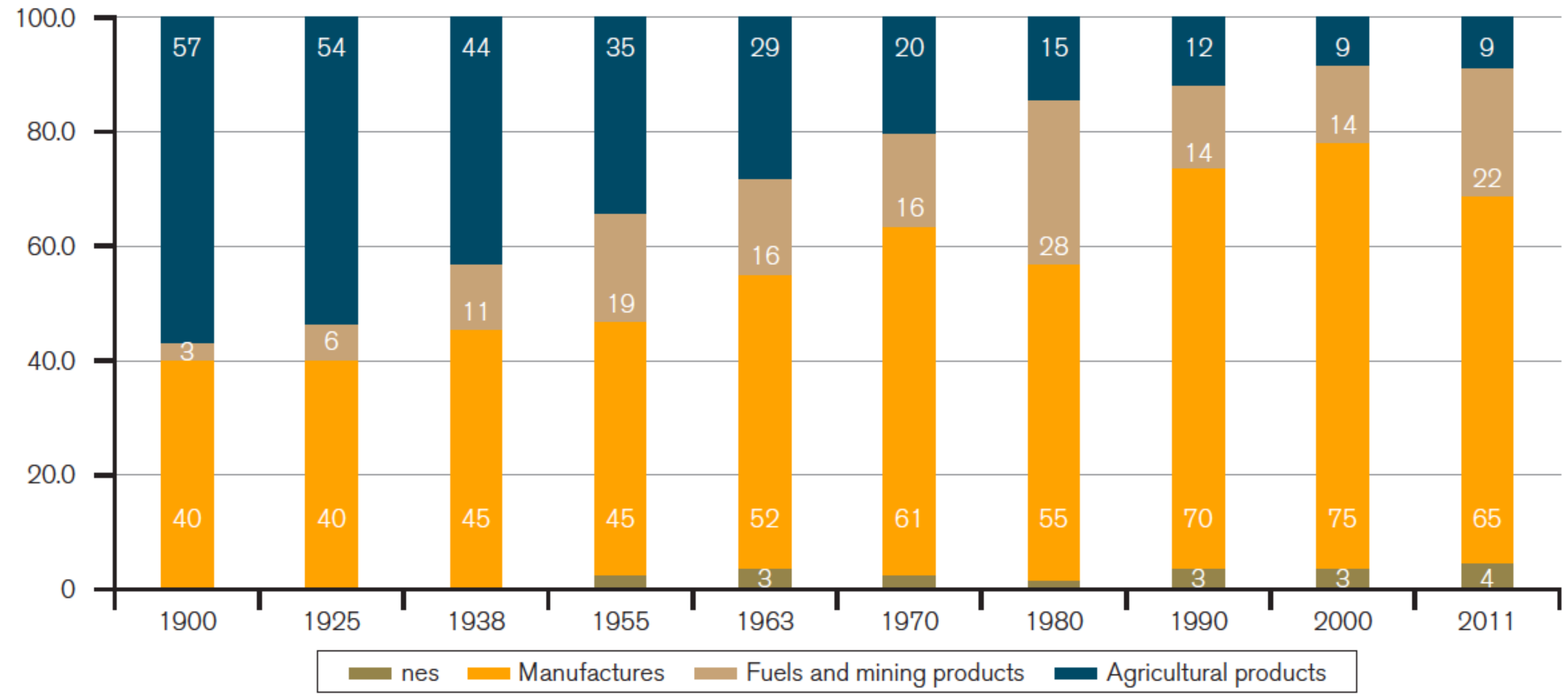


Import tariffs = taxes on imports, to be paid by importer.

Significant countries with highest tariffs are, in particular, in South Asia (India, Pakistan)

Changing composition of trade: what

Figure B.3: **Product shares in world merchandise exports since 1900** (percentage)



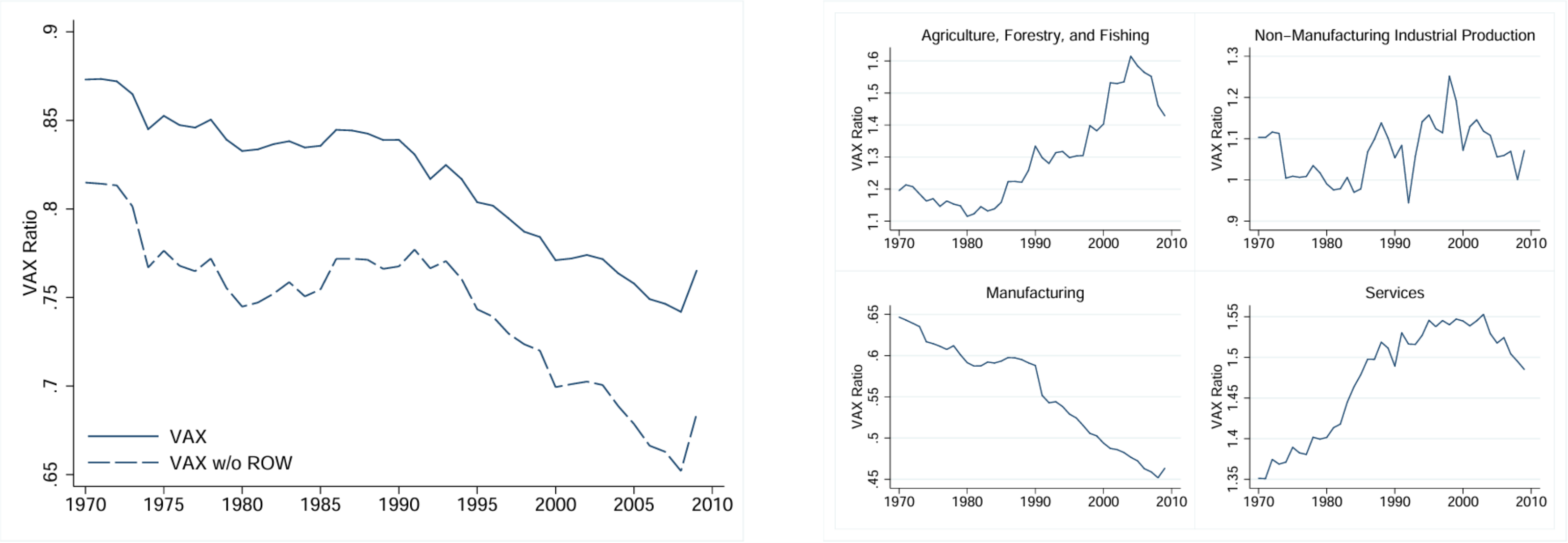
Sources: UN Statistical Yearbook (1969), GATT Special Studies No.5 and No.7, and WTO Secretariat estimates.

Trade used to be largely in agricultural goods, basic manufactured goods.

Now: some commodities (energy/minerals), but also many consumer goods & intermediates

The Fragmentation of Production

Figure 1: World Value Added to Export Ratios



(a) Aggregate (b) By Sector

Source: Johnson & Noguera (2012)

Fragmentation in manufacturing is driving global fragmentation patterns!

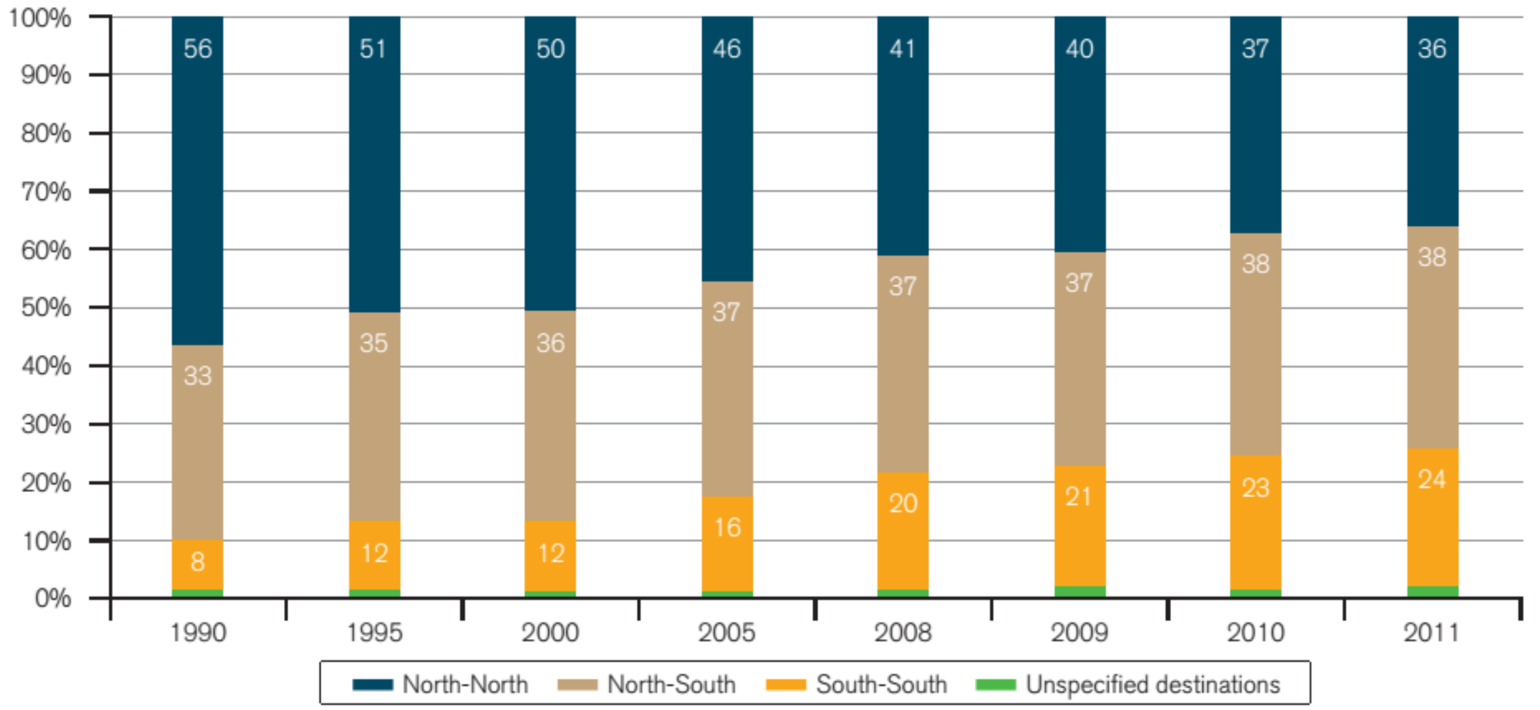
Value added: value of production output minus purchase value of intermediates

VAX = VA / exports

is an (inverse) measure of the degree to which value chains are fragmented across countries.

Changing composition of trade: who

Figure B.8: **Shares of "North-North", "North-South" and "South-South" trade in world merchandise exports, 1990-2011**
(percentage share)

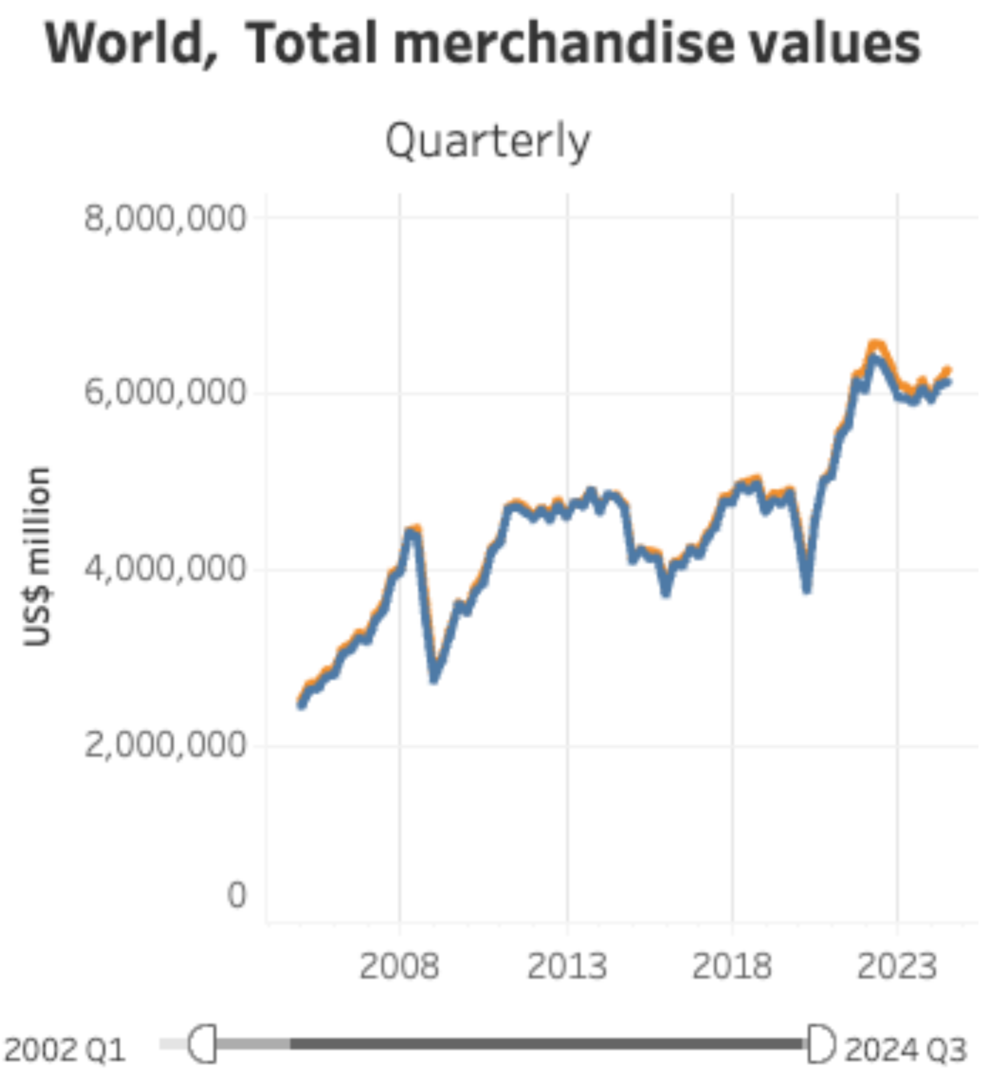


Source: WTO Secretariat.

Note: South includes Central and Eastern Europe before 2000, equal to 1.6 per cent of world trade in 1995.

Trade is increasingly between countries where at least one country is not a high-income country

Recent events in global trade flows



- 2009: "Global trade collapse": reduction in trade credit following financial crisis => reduction in trade
- 2016-2020: "Global trade slowdown": reduced demand from China, strong USD, increased uncertainty (Trump). 2018-2020: US-China Trade War (Trump I)
- 2020-2021: Covid. Quick recovery.
- 2025- : Trump's trade wars (more on that later)

The laws of trade: gravity

Jan Tinbergen in 1962 discovered an empirical regularity: the value of trade flows T_{ij} between two countries *i* and *j* follows approximately the relationship

$$T_{ij} = \frac{Y_i \times Y_j}{{D_{ij}}^{\alpha}}$$

where Y_i is GDP of country *i*, Y_j is GDP of country *j*, D_{ij} is distance between *i* and *j*, and *c* is a constant (that depends on the units in which we measure distance and trade flows).

In words: (a) <u>larger countries trade more</u>; (b) <u>countries farther apart trade less</u>.

Gravity: country size (GDP)

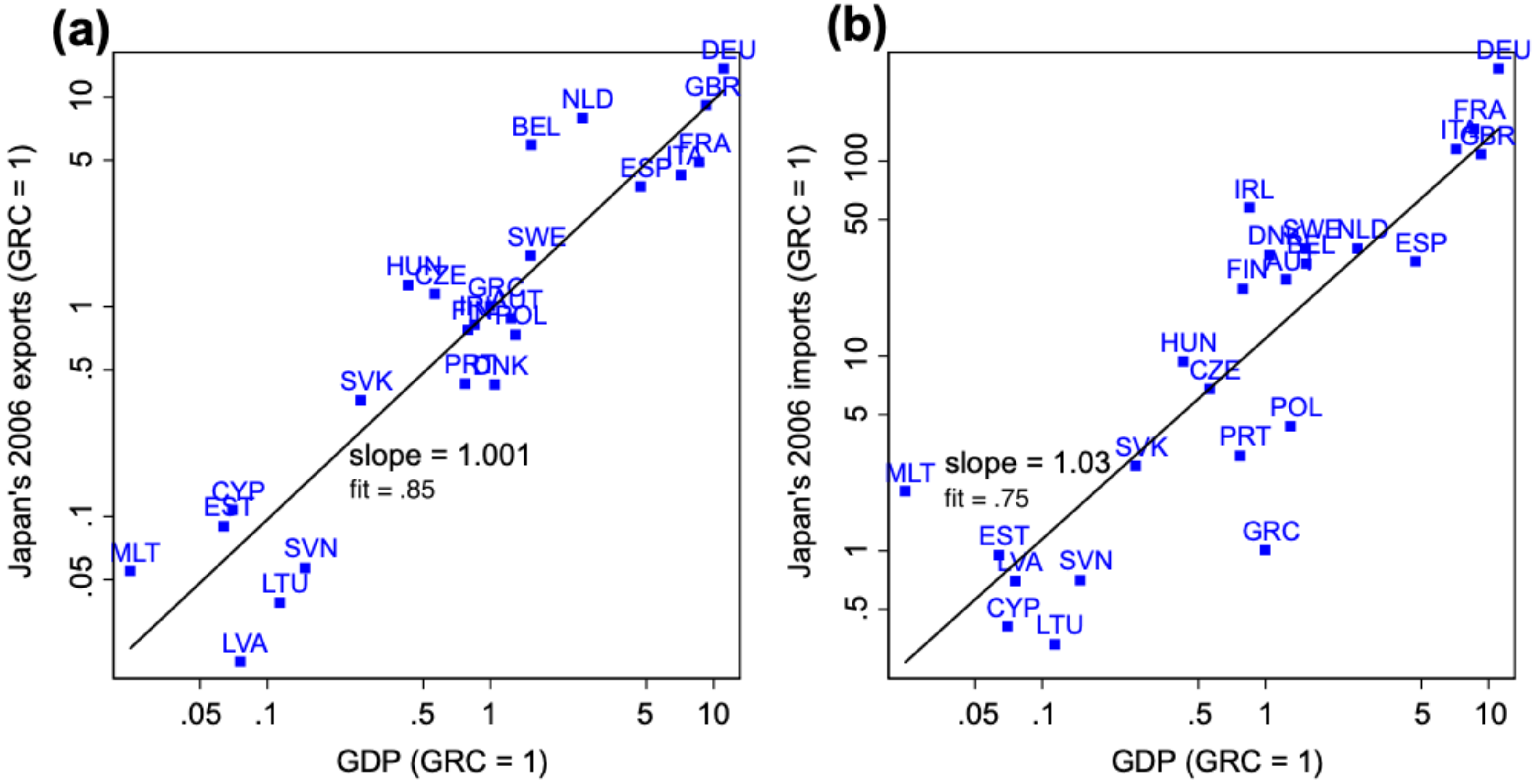


Figure 3.1 Trade is Proportional to Size; (a) Japan's Exports to EU, 2006; (b) Japan's Imports from EU, 2006. GRC: Greece

"A country that is twice as large trades twice as much with Japan"

Source:
Head and Mayer (2014)

Gravity: distance

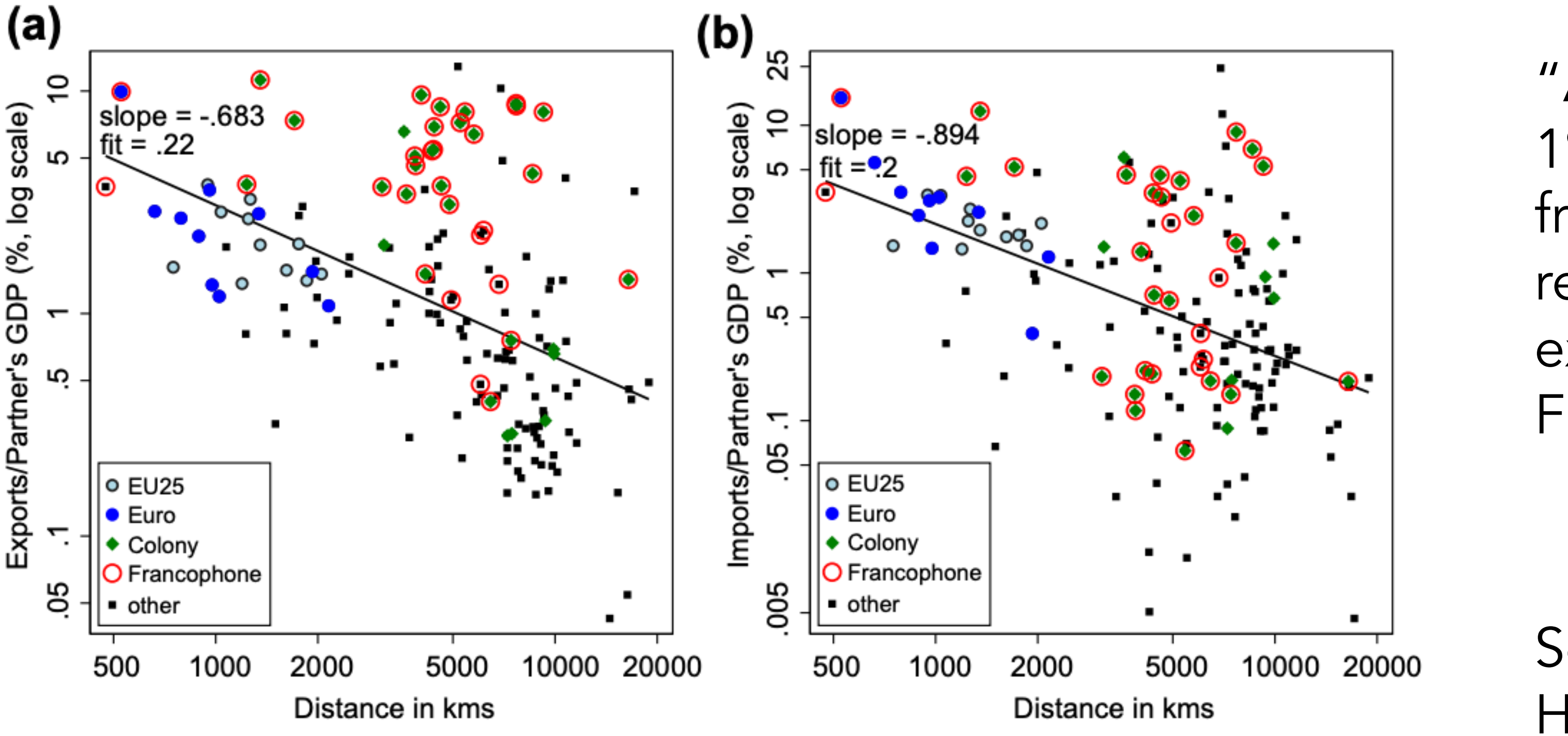


Figure 3.2 Trade is Inversely Proportional to Distance; (a) France's Exports (2006); (b) France's Imports (2006)

"A country that is 1% further away from France receives 0.68% less exports from France"

Source:
Head and Mayer (2014)

Brexit and Gravity

In the discussion following the Brexit referendum (2016), some people claimed that Britain’s trade with Europe is not that important: it can always strike trade deals with the US to make up for lost trade with Europe under no-deal.

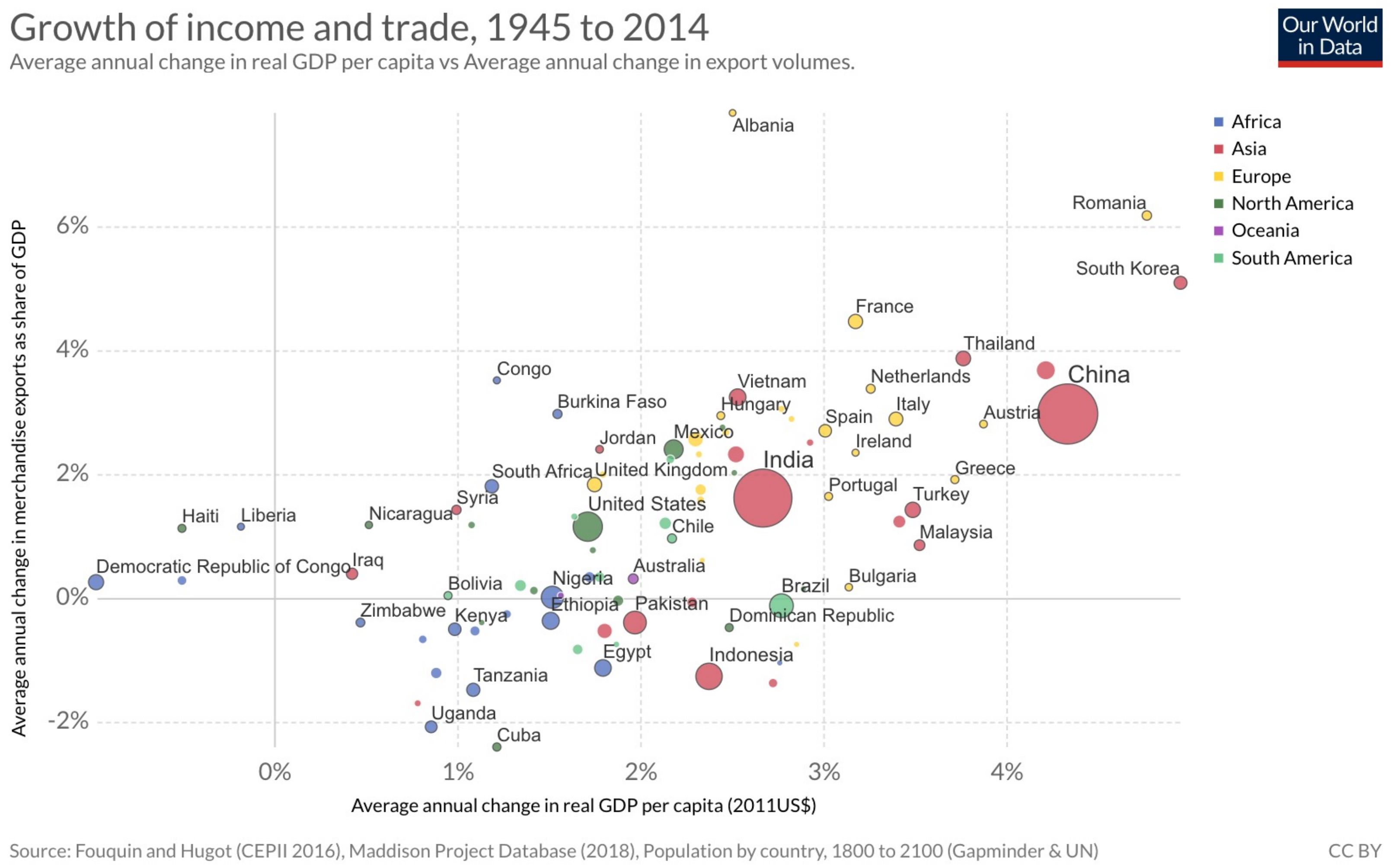
These people don’t understand Gravity. Even with zero tariffs to/from the US, the distance is a much stronger barrier than the high WTO tariffs with Europe under a no-deal scenario.

Gravity at the city level

Gravity holds as well at the city level: larger cities trade more, closer cities trade more.

Usually within-country trade flows are not observed. In work with Clare Balboni (LSE) we use confidential transaction microdata from VAT records in Pakistan to

Is trade causing growth?



- Countries that grew faster were also those that increased their exports (as a fraction of GDP)
- Is trade causing growth?

Difficult to say…

Is trade causing growth?

- The statistical relationship between trade (here measured by the export share of GDP) and growth is a *correlation*: "when X is higher, Y is on average higher as well"

- But that does not necessarily mean that trade is causing growth.
  - It could be that countries that grew faster for some reason preferred to be more open– or that something else was driving both growth and trade
  - Ideally we'd run an experiment (like a medical trial): open up a randomly drawn subset of countries, but not the others, and see whether the growth patterns of the two groups are different.
  - Of course we can't do that. So we'll have to study episodes where trade integration was *as good as random*…

Attempts at causal trade/growth inference

- Feyrer (2009) looks at the closure of the Suez canal 1967—1975 (for political reasons), finds large positive effect of trade on growth
- Feyrer (2018) uses introduction of aircraft technology, finds large positive effects on growth
- Pascali (2015) studies the transition from the sailing boat to the steamship (19th century), which made *some* trade routes faster.
    - Finds that trade openness was beneficial for countries with inclusive institutions, but bad for countries with extractive/coercive institutions

Most trade economists think that trade has positive long-term effects… but it's very hard to find evidence for (or against) it.

The gains from trade in the short term

- Trade theory can be a bit counterintuitive, so we'll start with building some intuition

- In the first scenario, we'll forget about trade, and just talk about production.
- Imagine the EU has resources that can be used to either produce 10m shirts, or instead 10,000 cars.
- In India, the resources needed for the production of the same 10m shirts could be used to produce 3,000 cars
- Suppose the EU is initially producing shirts, and India is producing cars.

Some intuition for the gains from trade

- If the EU gave up the production of shirts and instead produced cars, and India switching to produce shirts instead of cars, countries can raise total world production

Country	Shirts (millions)	Cars (thousands)
EU	-10	+10
India	+10	-3
Total	0	+7

- As we will see, trade is a mechanism that changes what different countries produce: similarly to the above example, trade shifts production of a good to the country that is relatively better at producing it.

Absolute advantage

- Units of goods that a worker can produce in a month:

Country	Oranges	Cars
France	50	15
Tunisia	150	5

- France has an absolute advantage in the production of cars (15>5), Tunisia has an absolute advantage in oranges (150>50).
- Definition: *a country has an absolute advantage for a good if its productivity for the production of that good is higher than in other countries.*

Another example

- Units of goods that a worker can produce in a month:

Country	Shirts	Cars
France	60	15
Tunisia	30	5

- France has an absolute advantage in both shirts and cars
- Is there still a gain from trade?
- In autarky, the price (≈ cost) of a car in France is 4 shirts (60/15 = 4)
- In autarky, the price (≈ cost) of a car in Tunisia is 6 shirts (30/5 = 6)
- Under those prices, a French firm could sell the 15 cars for 15*6 = 90 shirts in Tunisia, which would be worth 90/4 = 22.5 cars in France.
- Trade is like a better production technology!

Comparative Advantage

- Units of goods that a worker can produce in a month:

Country	Shirts	Cars
France	60	15
Tunisia	30	5

The example shows that what matters are *relative* productivities (e.g. 60/15 = 4 for France, 30/5 = 6 for Tunisia).

We say that if the relative productivity for a good (say, shirts) is higher in a country than in the other country, then this country has a *comparative advantage* in that good

- Here, France has a comparative advantage in cars, Tunisia in shirts.

Country	Shirts	Cars
France	60	15
Tunisia	30	5

- What would happen if more and more people would sell the French cars in Tunisia, to buy shirts?
  - The price of cars (in shirts) in Tunisia would decrease… up to the point where the price of cars (in shirts) is the same across countries (and then there's no point in doing the trade anymore)
  - At this point Tunisia would only want to produce shirts, and not cars (because producers are getting a better price), and, similarly, France would only want to produce cars
  - France exports cars (imports shirts), Tunisia exports shirts (imports cars).
  - French consumers get cheaper shirts, Tunisian consumers get cheaper cars. Consumers in both countries benefit.

Winners and losers from trade

In this example, trade is great if you're a French car producer or a Tunisian shirt producer.

- Trade increases the price of your good, because of foreign demand

But trade harms those that previously produced shirts in France, or cars in Tunisia.

- Job losses, factories closing, etc
- Evidence from Autor et al. (2013) that importing from China has lowered wages of certain blue-collar workers in US

But consumers (in both countries) are better off: trade moves production to the "right" country, which lowers production costs, and decreases prices.

Winners and losers from trade

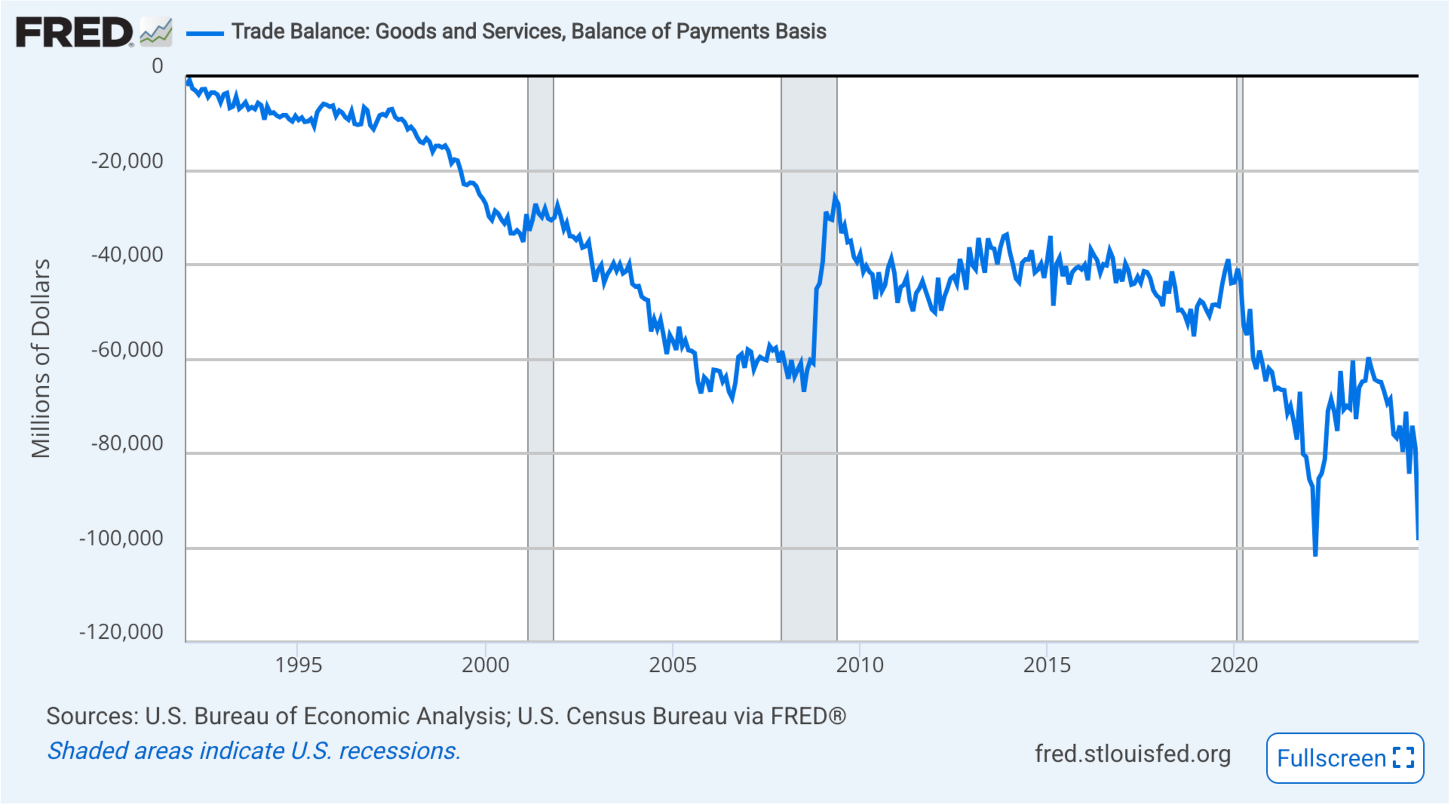
Most trade economists emphasize that the winners (certain producers, and consumers) gain more than the losers lose.

- In other words, you could tax the winners and transfer some of it to the losers, and everybody would be made better off

The evidence from the US (and other countries) suggests that this hasn't happened (or not happened entirely).

- Is restricting trade (Trump) the right policy response, or are there other ways to compensate the losers from trade?

The US imports more than it exports



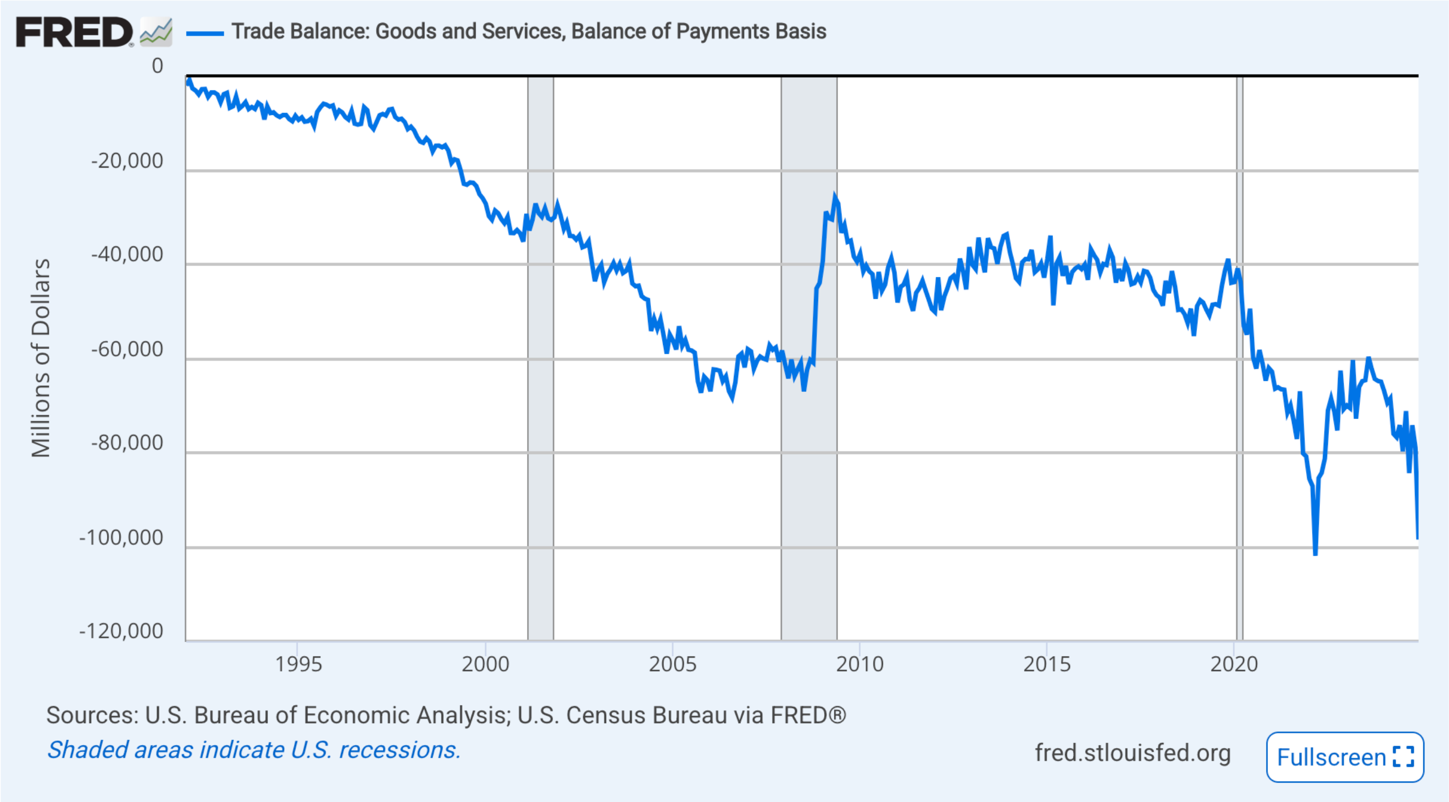
Difference between exports and imports is the *trade balance*.

Imports > Exports means that the US is running a *trade deficit*.

The US pays for these excess imports by borrowing from the rest of the world.

Is that a problem?

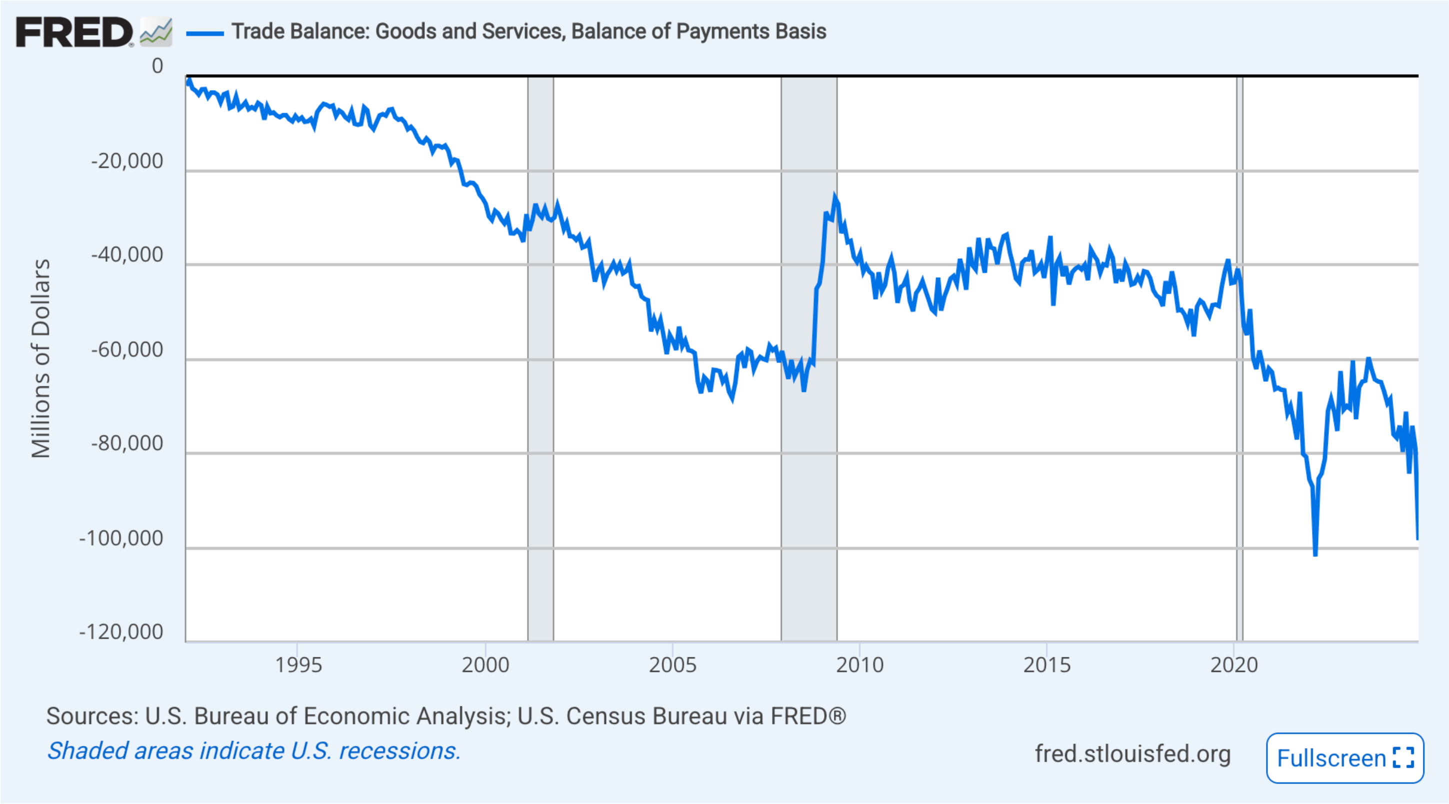
The US imports more than it exports



Maybe not:

- Maybe the US will run a trade surplus in the future, paying back the debt.
- Maybe the fact that the US borrows at lower rates than what they're receiving on their investments abroad ("exorbitant privilege") pays for it.

The US imports more than it exports



Maybe it is a problem:

- If US debt increases, at some point markets won't want to lend to the US anymore (or only at high interest rates).
- April/May 2025: cost of US borrowing has increased AND dollar has depreciated. But: this was triggered by Trump's tariff policies!
- More in Intl' Finance session.

Current events

1 Feb, 2025: Trump announces 25% tariffs on imports from Mexico, Canada (paused, then partly implemented), 10% on China (implemented + retaliation)

10 Feb, 2025: Trump announces 25% tariff on all steel, aluminium & derivative products (from anywhere). EU, Canada retaliate.

26 March: Trump announces 25% tariff on cars and car parts (from anywhere, except USMCA-compliant goods). Cars implemented, car parts not yet.

On **2 April 2025**, Donald Trump announces EO with US tariff increases

- on imports from all countries (10%), from 5 April 2025 onwards,
- higher "reciprocal" tariffs (up to 50%) on imports from a long list of countries, from 9 April 2025 onwards (see photo on title slide)
  - alongside an economic "explanation" of how they decided on these numbers

More current events

4-9 April: China retaliates, US retaliates against retaliation, etc ("trade war"). On **May 12**, most of these additional tariffs were reduced to 10% (on both sides). On **June 11**, Trump announces "deal", but no details known yet.

28 May: US Court of Intl' Trade rules that Trump's 2 April tariffs were illegal. Gov't appealed, and appeals court stayed the order. Tariffs remain in place.

4 June: Increase to 50% tariff on all steel, aluminium, and derivative products (from 25%)

Some instruments of trade policy

- A *tariff* is a <u>tax</u> levied when a good is imported.
    - Could have export tariffs, but not really used.

- A *specific tariff* is levied as a fixed charge for each unit of imported goods.
    - For example, $3 per barrel of oil.

- An *ad valorem tariff* is levied as a fraction of the value of imported goods: by far the most common measure
    - For example, 25% tariff on the value of imported trucks.

- An *import quota* is a quantity constraint how many units per time can be imported

Non-tariff barriers

- A *Voluntary Export Restraint* (VER) is a limit of how many units that can be exported to a particular country in a particular timeframe

- *Technical barriers to trade* (TBTs): e.g.: rules for product weight, size, or packaging; mandatory labeling; import testing and certification procedures

- *Sanitary and phytosanitary measures* (SPS):
  - e.g.: GMOs, hormone-treated beef…

- Public policies to correct market failures arising from information asymmetries or to pursue non-economic objectives (protection of public health)
  - But can be used as protectionist measures

What do tariffs do?

Approach:

- We'll consider how a tariff affects a single market, with two countries ("US and China")
- Assumption: in the absence of trade, the price of the good is higher at in the US than it is in China
  - Think of mobile phones
  - With countries trading, the good will be shipped from China to US until the price difference is (almost) eliminated
- Now assume that the US is imposing a 30% ad valorem tariff on that good. That means that any importer of the good from China will have to pay 30% of the value of the imported good as a tax to the US government.
- To fix ideas, we'll think of the mobile phones being purchased from the manufacturer by a retailer (e.g. Walmart) in China, and sold to US consumers.

What happens in the short run?

- Walmart could leave retail prices unchanged. But then the 30% on its purchases would likely make selling the mobile phones unprofitable
  - Retail margins for consumer electronics are more like 10%
- Walmart could try to negotiate lower purchase prices for the mobile phones
  - That will only work if Walmart (or the US in general) had enormous market power… i.e. if the phone manufacturer had no other ways to get the phones to the consumers
  - While Walmart and the US would be important buyers, it's unlikely that phone manufacturers would lower their prices much
- Walmart could pass on some of the tax to consumers by raising their retail price for the phones
- Economists estimate that pass-through for import tariffs on retail goods in the US is about 0.9, i.e. for each 1% tariff, retail prices increase by 0.9%.

Pass-through and exporter prices

- The remaining 0.1% for each 1% of tariff increase is reducing profits of importers, or lowering the prices that exporters (here, the phone manufacturer) get.
- So when Trump says that he imposes a tariff to make “foreigners pay”, that’s true only in a very limited sense
    - Most of the tax is paid by US consumers in the form of higher prices
- Only in very special cases (the US accounts for almost *all* purchases of the imported good in the entire world) could a tariff substantially lower the price that the exporter would receive

What happens in the medium/long term?

- Even though the price that the phone manufacturer gets does not change much, the phone manufacturer is still not happy: as a result of consumer prices being close to 30% higher, fewer phones get imported and sold.
    - That means lower profits.
- The phone manufacturer might want to open a production site in the US to avoid the tariffs
    - This is typically what politicians want: to "bring back manufacturing jobs"
    - But: this *still* comes at the cost of higher prices to US consumers (manufacturing is cheaper in China), so consumers are effectively paying for jobs being brought back.
    - Production will only relocate when manufacturers face stable economic conditions, predictable trade policy, etc. Limited hard evidence of manufacturers relocating production back to the US in the current unstable environment.

So why have tariffs been used so much?

- One clear winner from tariffs: the government collects revenue
- In the past, tariffs have been used as a major source of government revenue.
- Why? Taxing goods when they enter the country is much easier (you tax them at customs/ports) than collecting personal or corporate income tax
- As a result, tariffs used to be important in the past, and are still important for countries with low state capacity.

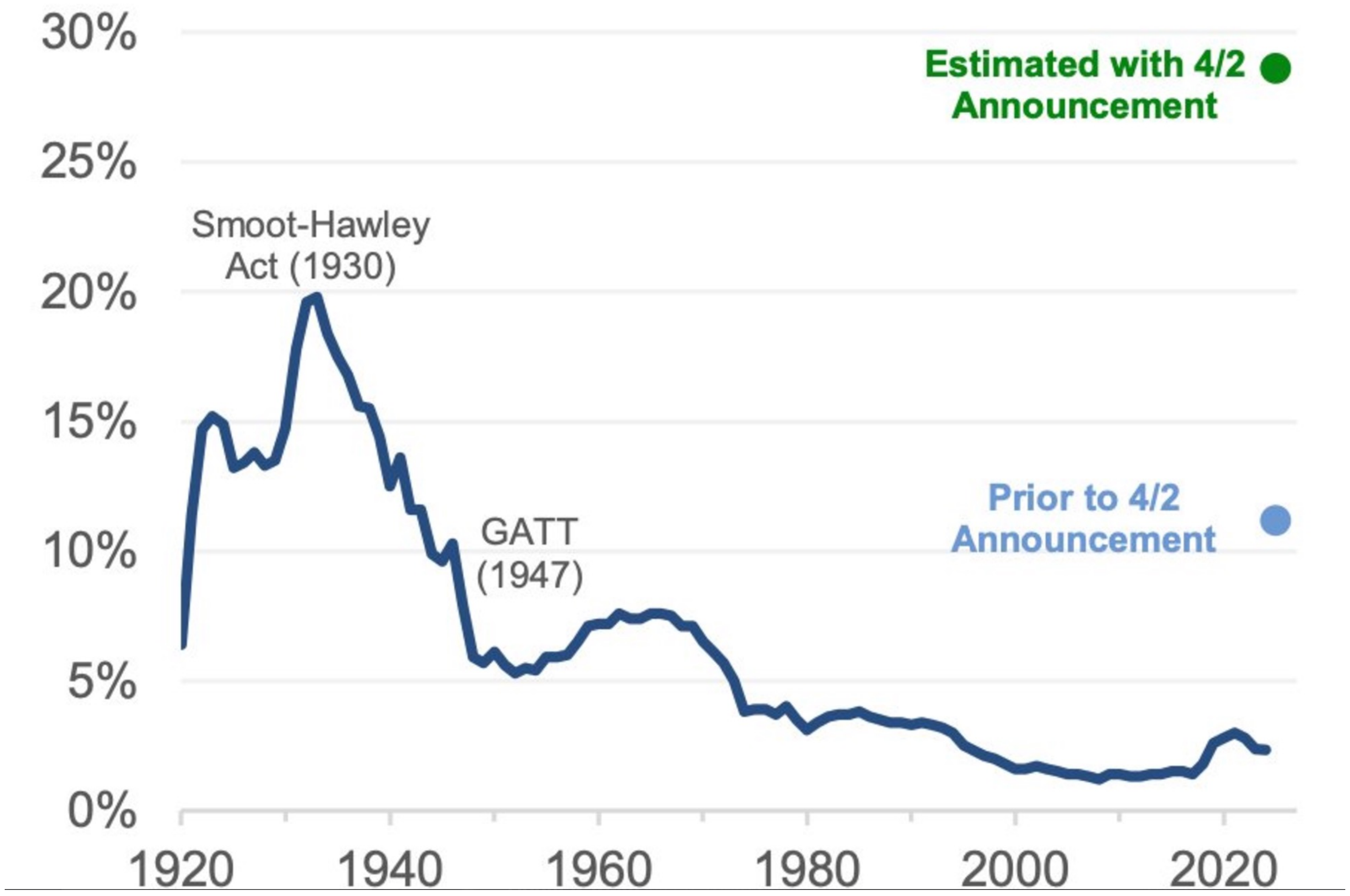
- In the case of countries with high government spending (like the US), tariffs would also not be sufficient to pay for government spending
    - Laffer curve argument

Trade Policy in the Global Trade Order

Now that we have talked about what tariffs do, and who benefits/loses, let's talk about how trade policy gets made.

- Countries sign international agreements (trade agreements), either bilaterally, or multilaterally. The biggest (most important) ones have become institutions: GATT/WTO.
- These agreements are not just about tariff reductions, but also about NTB's, rules of origin, and, importantly how they get enforced
- To understand what the current challenges for trade cooperation are, and to provide some perspectives on the current trade war, we'll do a short history on 20th century trade policy

Evolution of tariffs over the last 100 years



Weighted average US import tariff

Source: Evercore/ISI

Trade agreements

After WWII: determination to regulate world economy

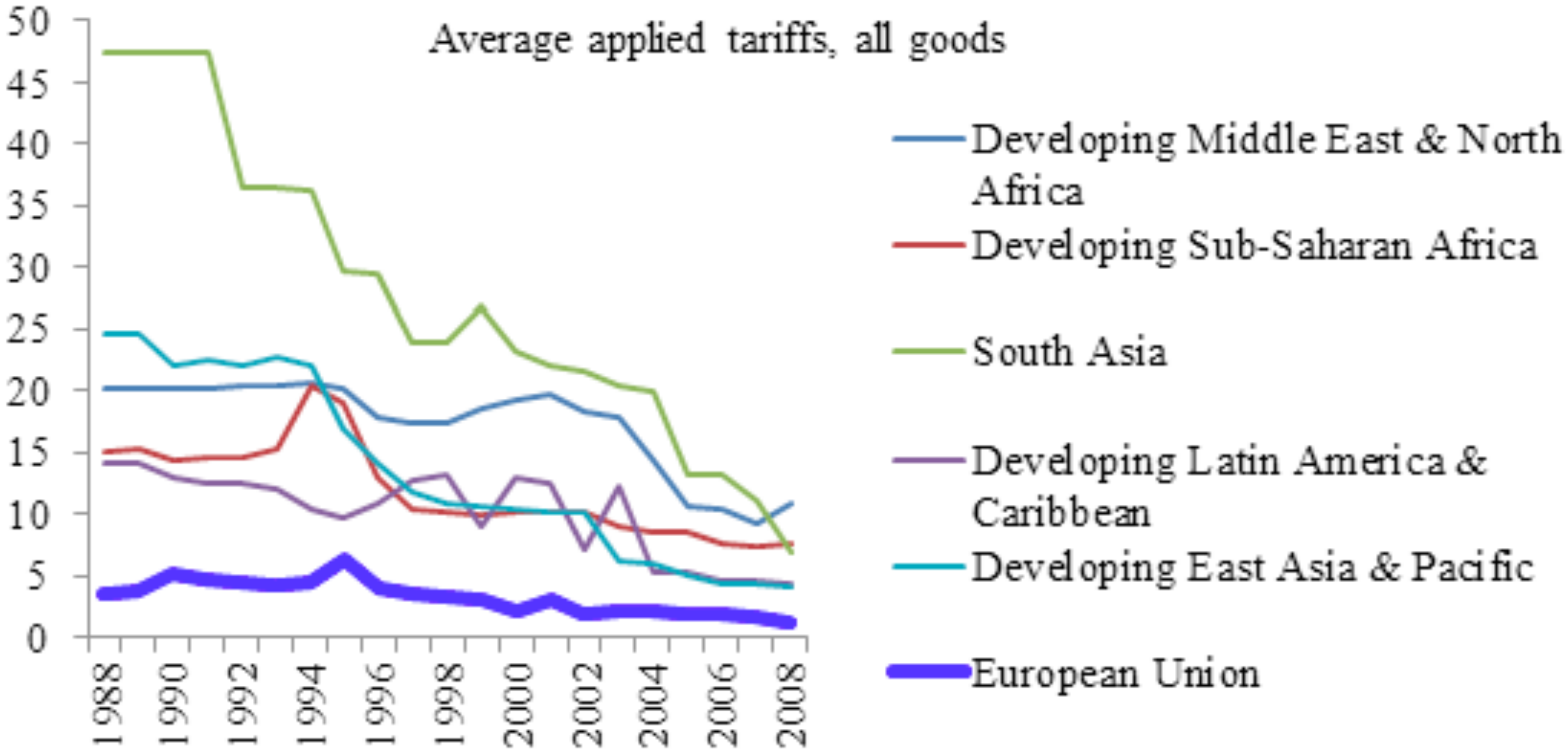
- Bretton Woods agreements in 1944: international financial system (gold standard, IMF, World Bank)
- Attempt to add an International Trade Organization (but not ratified by USA)

1947: 23 countries (12 industrialized and 11 developing) sign the General Agreement on Tariffs and Trade (GATT).

- Objective: initially to lower tariffs
- But progressively other questions: non-tariff barriers, and putting discipline on national policies with a trade effect (cf. political economy of trade policy)
- 1947-1994: 8 negotiation rounds that strongly reduced tariffs all over the world. Establishment of GATS (services), TRIPS (intellectual property)
- 1995: Establishment of World Trade Org (WTO) to replace GATT.

Drop in tariff rates (Uruguay and after)

Source: World Bank



World Trade Organization

What is it?

- A negotiation forum, to solve trade problems => liberalize trade, but also monitor the existing barriers
- A set of rules = set of contracts framing the trade polices of member countries
- A tribunal: DSB (Dispute Settlement Body)

GATT/WTO Principles:

- Non-discrimination / most favoured nation clause, reciprocity / consolidation, transparency
- No dumping and subsidies
- Exceptions: (i) FTAs / customs unions, (ii) developing countries, (iii) agriculture (less since 1995)

GATT/WTO principles

Most Favoured Nation (MFN) rule

- If a country lowers its tariffs on a trade partner, all members benefit from it (reduces negotiation costs + benefits smaller countries)
- Exceptions: Regional Agreements, Preferential Access in favour of developing countries

Equal treatment of foreign and national producers

- No (de jure or de facto) national tax or specific regulation on foreign producers
- That said, in practice there are limits to the enforceability of this rule:
  - non tariff barriers
  - state aid in various forms (China)

Reciprocity

- Any rise in tariffs must be compensated by a reduction of another tariff on the exporter country. Otherwise the exporter country can retaliate by imposing an equivalent tariff (in terms of $)

The Dispute Settlement Body (DSB)

Major breakthrough of the WTO

- Investigations and decisions by “special groups” (panels of 3 to 5 experts from non-involved countries)
- Enforcement does not take the form of fines, but WTO allows the complainant (and sometimes third-party countries) to set up sanctions (compensating measures). E.g. China and EU’s “retaliatory tariffs” to US
- The US have (since Obama) obstructing nominations to the appellate body which partly blocks the system (object law creation + unfair treatment of Chinese subsidies and US trade defense measures)

Trade defense: Anti-dumping

GATT 1994 Art. IV allows the imposition of anti-dumping duties on imports from a particular source if

- dumping (= selling in a foreign market at a cost lower than the domestic market, i.e. international price discrimination) is going on, and
- dumping threatens or causes material damage to an industry
- Example: on February 12, 2016, the EU (Commission) introduced anti-dumping duties on cold-rolled flat steel products from China and Russia

These measures are fairly common even in “normal” times.

Trade defense: “new” tools

GATT/WTO also allows

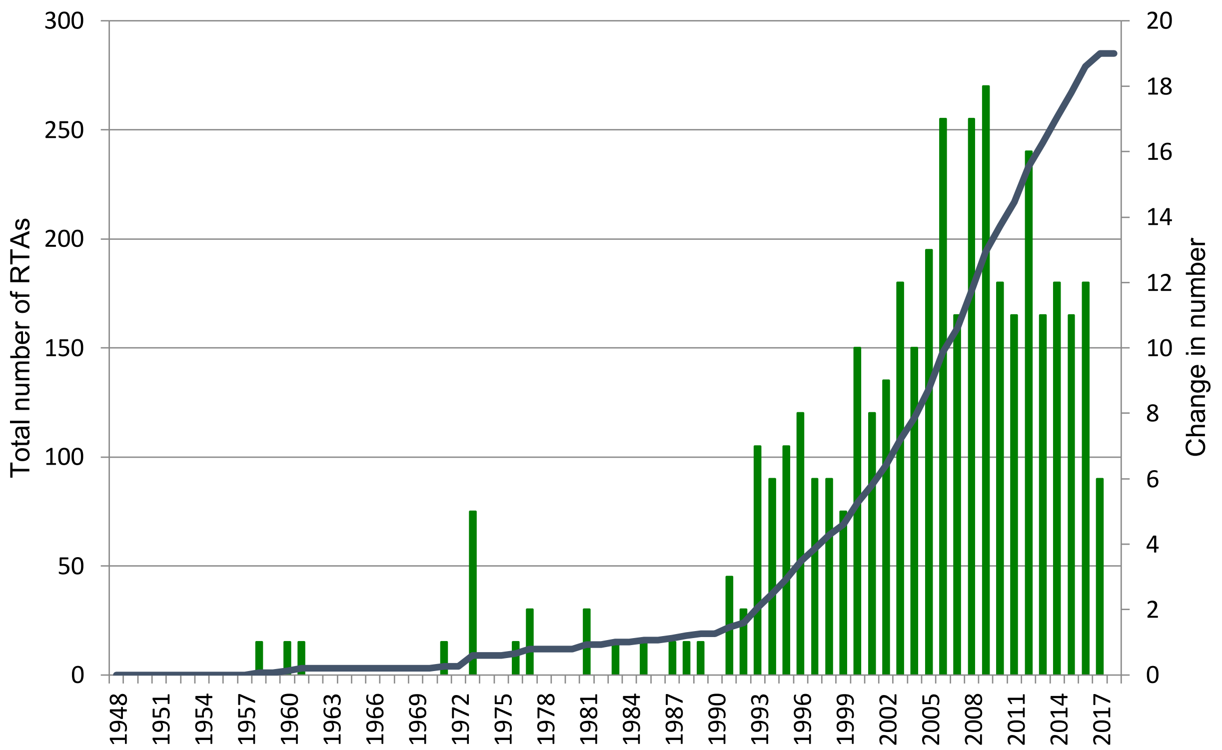
- anti-subsidy tariffs (when foreign firms receive subsidies), a.k.a. CVD (countervailing duties)
- safeguard tariffs (Article XIX of GATT 1994) : to protect industries against serious injury from sudden increase in imports -- rarely used before Trump)
- national security tariffs (Article XXI(b) of GATT 1994), again rarely used before Trump

Relevant to the current trade war: all actions also have to be legal under *domestic* law. In the US, trade policy is supposed to be done by Congress (!), although US courts have allowed strong presidential powers (Trump’s use of EO’s)

Trade policy between 1990 and 2016

Since most tariffs had already been cut to levels close to zero, efforts on trade integration focused on

1. reduction of NTB's, mostly through regional or bilateral agreements (successful);
2. expanding integration through agreements to protect investments (not very successful, public backlash)



Trump’s trade war and the WTO

Why does Trump’s trade war threaten the global trade order?

- One of the objective of the WTO is to ensure low tariffs. The US announced high import tariffs, and some countries make “deals” with the US that do not amount to full retaliation
    - the “punishment” for raising tariffs is missing
- Abuse of the justifications, e.g. raising tariffs on national security grounds
- Some of the proposed “deals” give countries preferential access. This is incompatible with MFN (unless negotiated as part of a RTA/FTA)
- Unlikely that the US is unblocking the appellate body of the DSB anytime soon.