(Special) Topic 9: Trade

Plan for this lecture

1. **The gains from trade**: Ricardo's comparative advantage
   - Theory.
   - A game.

2. Why imposing tariffs (on imports)?
   - Theory: the trade war.
   - A game.
   - Other motives and winners and losers from protectionism.

3. **Recent history – trade, growth and conflict**:
   - The Smoot-Hawley Tariff Act (1930), the Great Recession and WWII.
   - The post-WWII peace: GATT/WTO.
   - Relevant empirical evidence.

4. Trump, **the current tariff war and its potential impact**: on the world and on developing countries.

The gains from trade: Ricardo's comparative advantage – 1

AN ILLUSTRATIVE EXAMPLE

1. **Opportunity cost:** the value of the next best alternative that must be forgone when making a choice.

2. Even when a country has **absolute advantage** on the production of everything: it is worth for it to trade as long as it has a **relative advantage** on the production of some good. When is this the case?

	Possible production	
	Country A	**Country B**
Laptops	150	1000
Smartphones	1500	2000
Opportunity cost S/L	10	2

The gains from trade: Ricardo's comparative advantage – 2

AN ILLUSTRATIVE EXAMPLE

1. **Opportunity cost:** the value of the next best alternative that must be forgone when making a choice.

2. Even when a country has **absolute advantage** on the production of everything: it is worth for it to trade as long as it has a **relative advantage** on the production of some good. When is this the case?

	Possible production		No trade	
	Country A	**Country B**	**Country A**	**Country B**
Laptops	150	1000	**100**	**500**
Smartphones	1500	2000	**500**	**1000**
Opportunity cost S/L	10	2		
Total laptops			600	
Total smartphones			1500	

The gains from trade: Ricardo's comparative advantage - 3

AN ILLUSTRATIVE EXAMPLE

1. **Opportunity cost:** the value of the next best alternative that must be forgone when making a choice.

2. Even when a country has **absolute advantage** on the production of everything: it is worth for it to trade as long as it has a **relative advantage** on the production of some good. When is this the case?

	Possible production		No trade		With trade	
	Country A	Country B	Country A	Country B	Country A	Country B
Laptops	150	1000	**100**	**500**	**250**=0+250	**750** = 1000-250
Smartphones	1500	2000	**500**	**1000**	**500**=1500-1000	**1000** = 0 + 1000
Opportunity cost S/L	10	2				
Total laptops			600		1000 **(+400)**	
Total smartphones			1500		1500	

Trade results in Output Growth and… both countries win!!

The gains from trade: Ricardo’s comparative advantage - 4

GROUNDING THE INTUITION: A GAME

1. You are going to play a trading game now.
2. Go to https://veconlab.econ.virginia.edu/login.html or simply google Veconlab login.
3. Join the session bapa3.
4. Follow the instructions and play the game!
5. There will be a special prize for the winner(s) – *remind me before we move to another thing!*

Veconlab: Enter Session Name

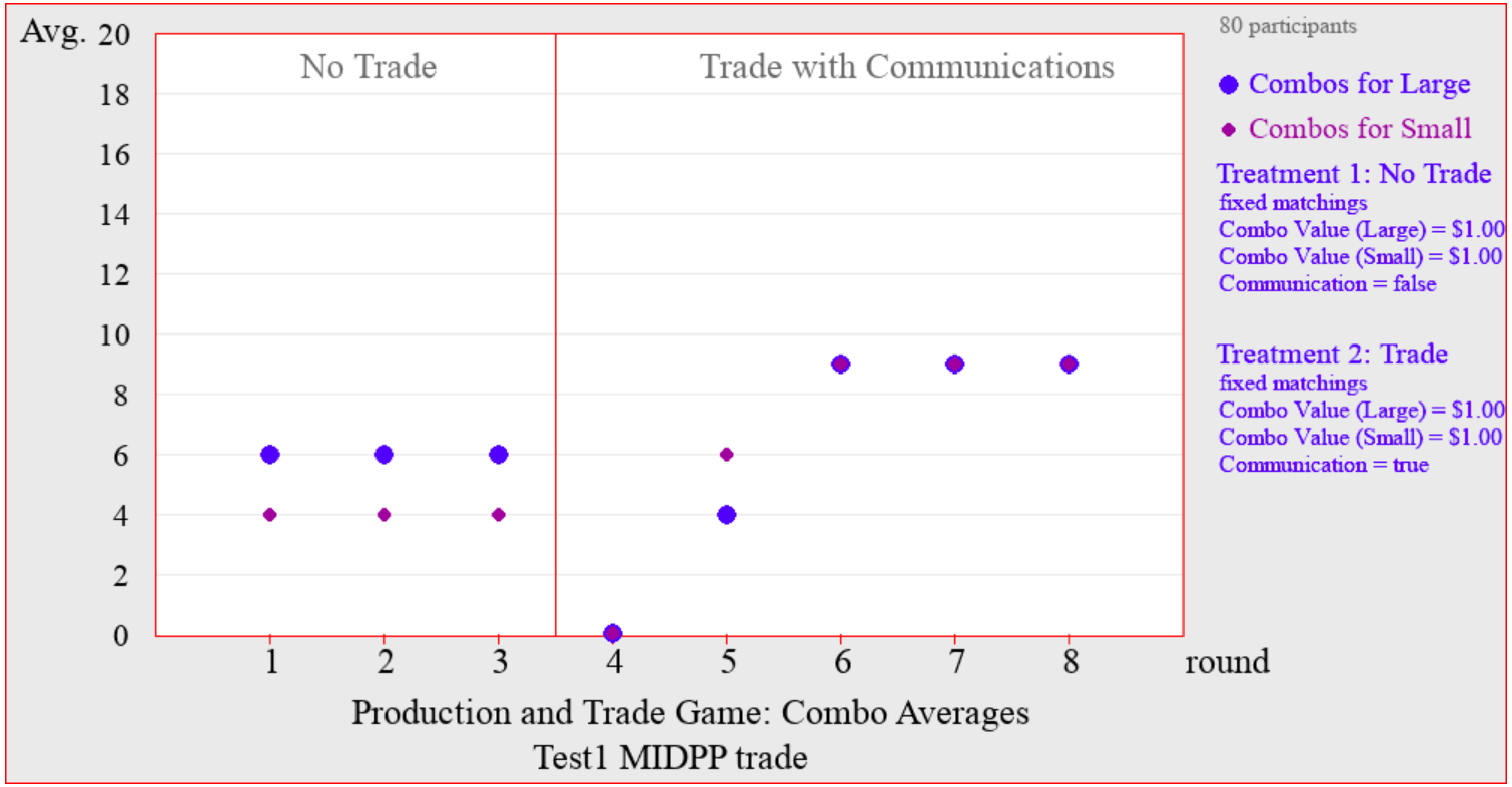
Please enter the session name supplied by your instructor.

Session Name: bapa3

Submit

The gains from trade: Ricardo's comparative advantage – 5

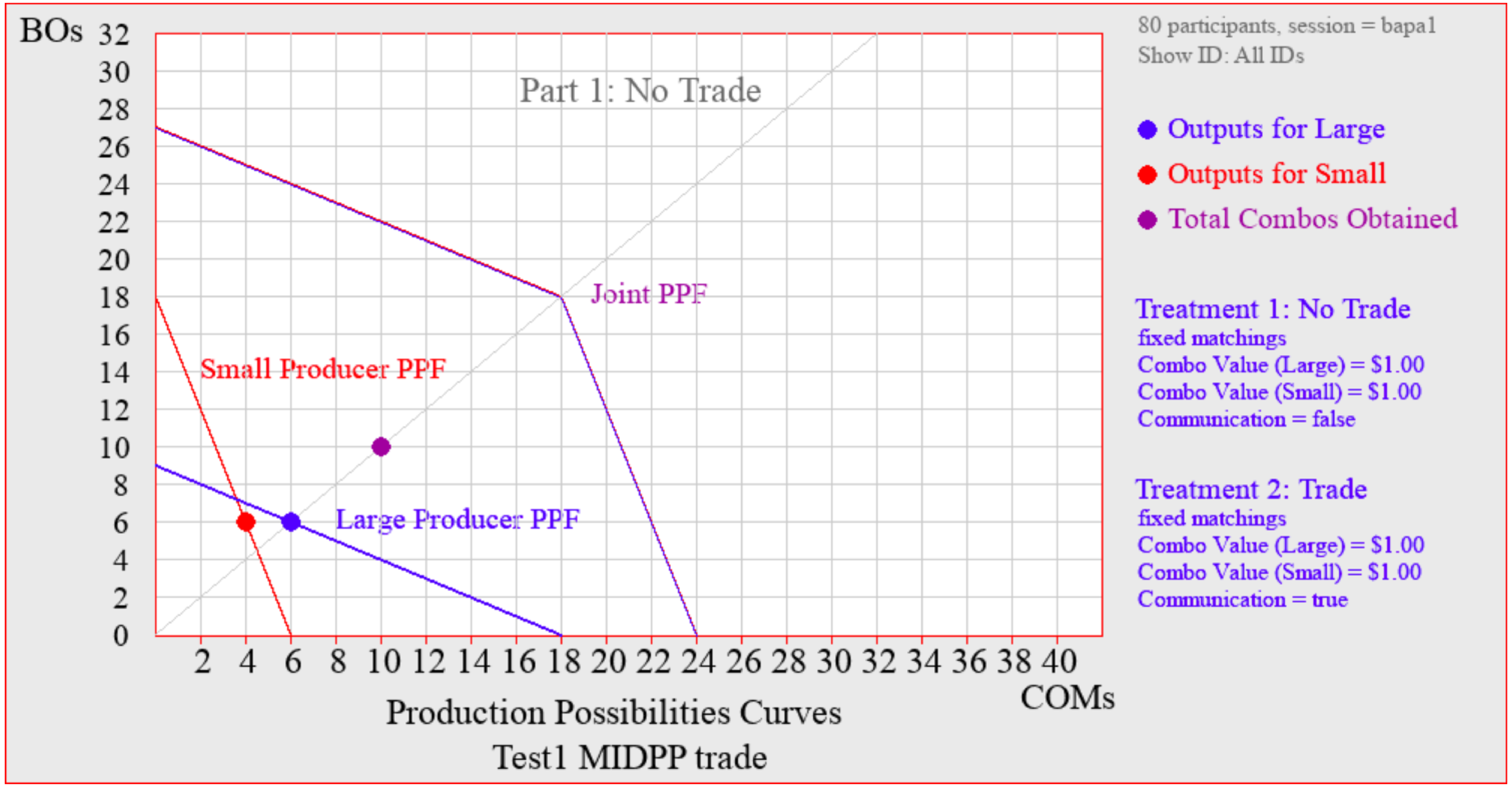
FIXING THE INTUITION: A GAME



Preliminary figure, from a 2-player simulation Brais did before playing in class

The gains from trade: Ricardo's comparative advantage - 6

FIXING THE INTUITION: A GAME



Preliminary figure, from a 2-player simulation Brais did before playing in class

Is the intuition clear? Also at the micro level!

Tariffs

DEFINITION

Definition: a tariff is a **tax imposed by the government** of one country **on goods and services imported from another country**. Typically collected by customs authorities and are mostly applied to imports.

Impacts of tariffs:

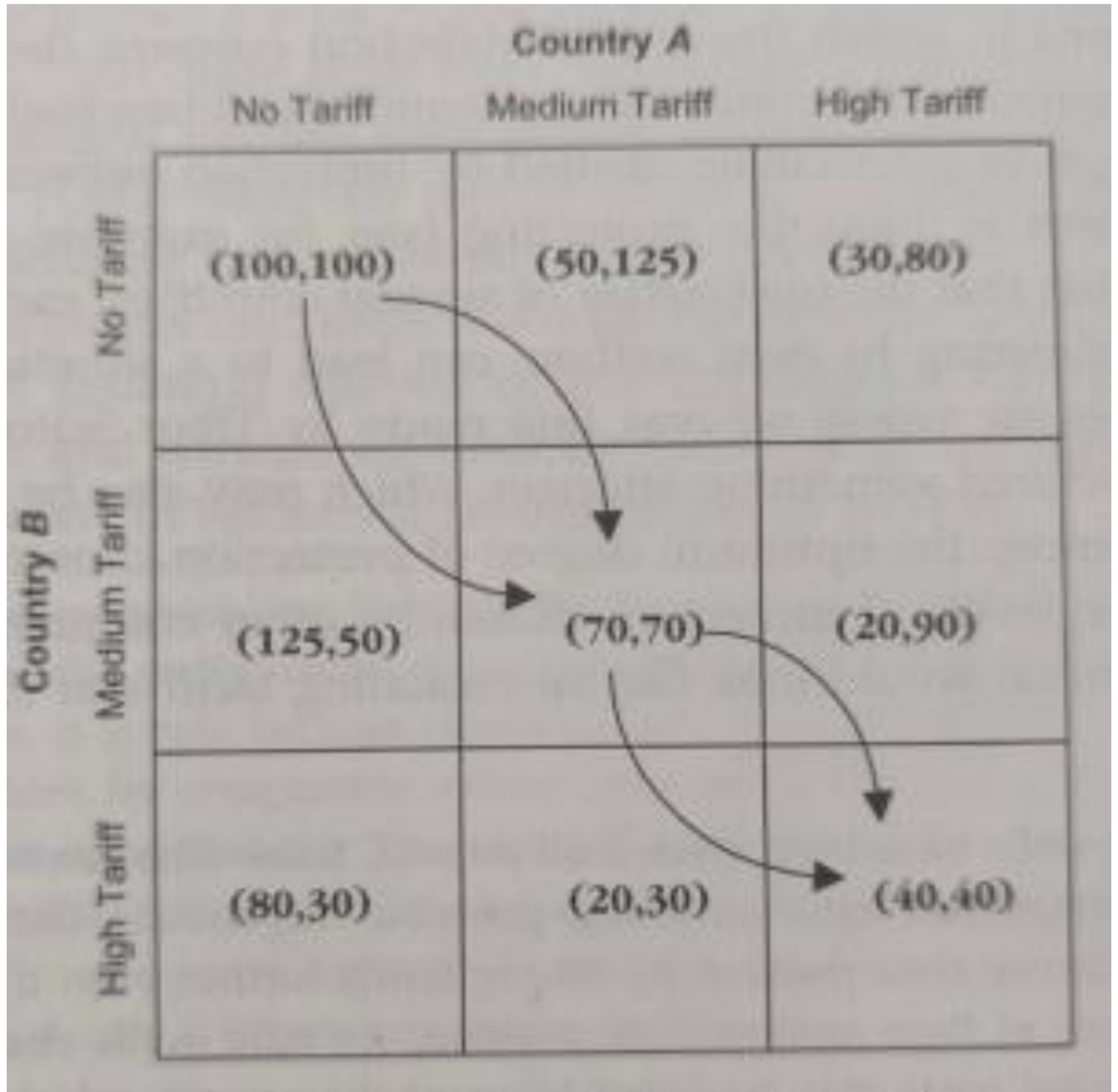
1. Increase prices for consumers and businesses in the importing country.
2. Disrupt supply chains, reducing the quantity and variety of goods available.
3. Provoke retaliatory tariffs from other countries: decreasing market for national firms.
4. Harm economic growth (and aggregate welfare).

We have seen that, in theory, free trade is good for overall output and for every country involved. Why would a country impose tariffs!?

Why would a country impose tariffs!? – 1

PERVERSE (GLOBAL) INCENTIVES: A SIMPLE –COMPETITIVE- GAME

Protection as a prisoner's dilemma



Country B \ Country A	No Tariff	Medium Tariff	High Tariff
No Tariff	(100,100)	(50,125)	(30,80)
Medium Tariff	(125,50)	(70,70)	(20,90)
High Tariff	(80,30)	(20,30)	(40,40)

Figure 18.1. Beggar-thy-neighbor tariff escalations.

Source: Debraj Ray's Development Economics, Chapter 18

The numbers behind Trump's reciprocal tariffs

The administration's calculation divided a country's trade deficit with the US by its exports into the country times ½. [CNN, 5th of April 2025](#).

- "They charge us, we charge them", but… no tariffs used in the calculation of the rate, and:
- Most-Favored-Nation (MFN): definition and role in trade: foundational principle (WTO framework) => the **country granting MFN status to another promises to treat that country no less favorably than it treats any other trading partner**.
- Exceptions: free trade agreements, customs unions, or for developing countries.
- Practical impact: **MFN set the highest rate WTO members can charge each other**.

	Trump tariffs	Avg. MFN rate (2023)	Trade deficit
China	34%	7.5%	-$295.40B
European Union	20%	5.0%	-$235.57B
Vietnam	46%	9.4%	-$123.46B
Taiwan	32%	6.5%	-$73.93B
Japan	24%	3.7%	-$68.47B
South Korea*	25%	13.6%	-$66.01B
India	26%	17.0%	-$45.66B
Thailand	36%	9.8%	-$45.61B
Switzerland	31%	5.2%	-$38.46B
Malaysia	24%	5.6%	-$24.83B
Indonesia	32%	8.0%	-$17.88B
Cambodia	49%	9.4%	-$12.34B
South Africa	30%	7.6%	-$8.84B
Israel	17%	3.6%	-$7.43B
Bangladesh	37%	14.1%	-$6.15B

If other countries renegotiate their own trade policies, the US "could very quickly end up in a situation where you have 25% of the world economy up against the other 75%," he said, "and I can tell you who's going to come out ahead there."

Why would a country impose tariffs!? – 2

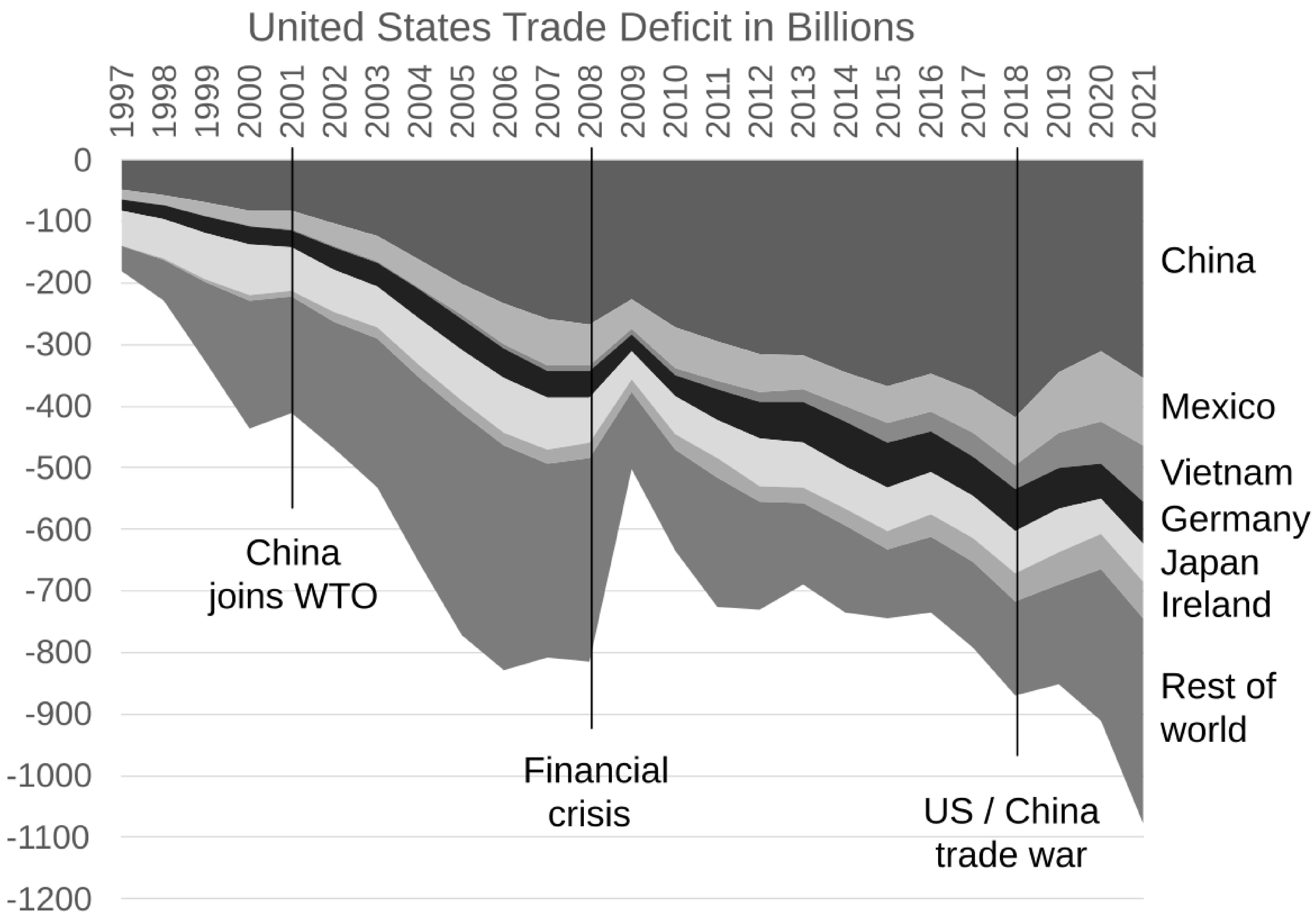
OTHER REASONS FOR TARIFFS

Some practical reasons for tariffs might be:

1. Raising government revenue.

2. Protecting domestic industries from foreign competition by making imported goods more expensive.
   - Nascent industry in developing countries.
   - Lobbying and special interests.

3. Correcting trade imbalances or exerting political leverage in negotiations.



Winners and losers from tariffs!?

Recent history: the Smooth-Hawley Tariff Act (1930)

- Enacted in June 1930 to protect US farmers and businesses from foreign competition.
- Raised tariffs on over 20,000 imported goods – average tariffs increased from 40% to 60%.
- Triggered retaliatory tariffs from more than 25 countries: "**global trade war" (mostly USA vs. Others) – it did contribute towards economic nationalism, fragmenting global trade.**
- Contributed to a 66% collapse in world trade between 1929 and 1934.
- **Deepened and prolonged the Great Depression**: reducing exports, increasing unemployment, and destabilizing financial markets.
- Opposed by over 1,000 economists but signed into law by President Hoover.
- Widely regarded as a **cautionary example** of the dangers of protectionist trade policy.
- Resulting economic hardship contributed to **social and political instability**, fostering the **rise of extremist and authoritarian leaders (like Hitler)** + **economic isolation** and breakdown in international cooperation made it **harder for democratic nations to form alliances** against fascist powers in the 1930s => **indirect contribution to WWII**.

"Those who cannot remember the past are condemned to repeat it." *George Santayana, 1905.*

Recent history: numbers behind the World War II

- 70-85 million deaths, about 3% of the 1940 population (*today that rate would mean 246 million – COVID killed "just" over 7m*).
- Economic cost and material destruction: infrastructure in Europe and Asia devastated, 30% of British homes destroyed or damaged.
- Mobilization: major economies devoted 50% - 70% of national income to the war effort.
- Lasting impact: division of Europe, creation of the United Nations, and major changes in global economic and political order.

Recent history: the post-WWII peace – GATT/WTO

- The General Agreement on Tariffs and Trade (GATT) was established in 1947 after WWII to **reduce trade barriers** and **promote international economic cooperation**.

- Devastation of WWII showed that **protectionism and economic conflict could fuel instability and war**.

- By encouraging free and fair trade, GATT –explicitly- aimed to **foster prosperity, stability, and friendly relations among nations**.

Cordell Hull (US Secretary of State, co-architect of GATT): "**without prosperous trade among nations any foundation for enduring peace becomes precarious and is ultimately destroyed**"

- "Building and maintaining the global trading system has never been easy": the need for strong political leadership to advance trade negotiations. VoxEU CEPR 2008.

Trade liberalization and economic growth

- Very important and mostly sustained **drop on import tariffs** since the creation of GATT in 1947

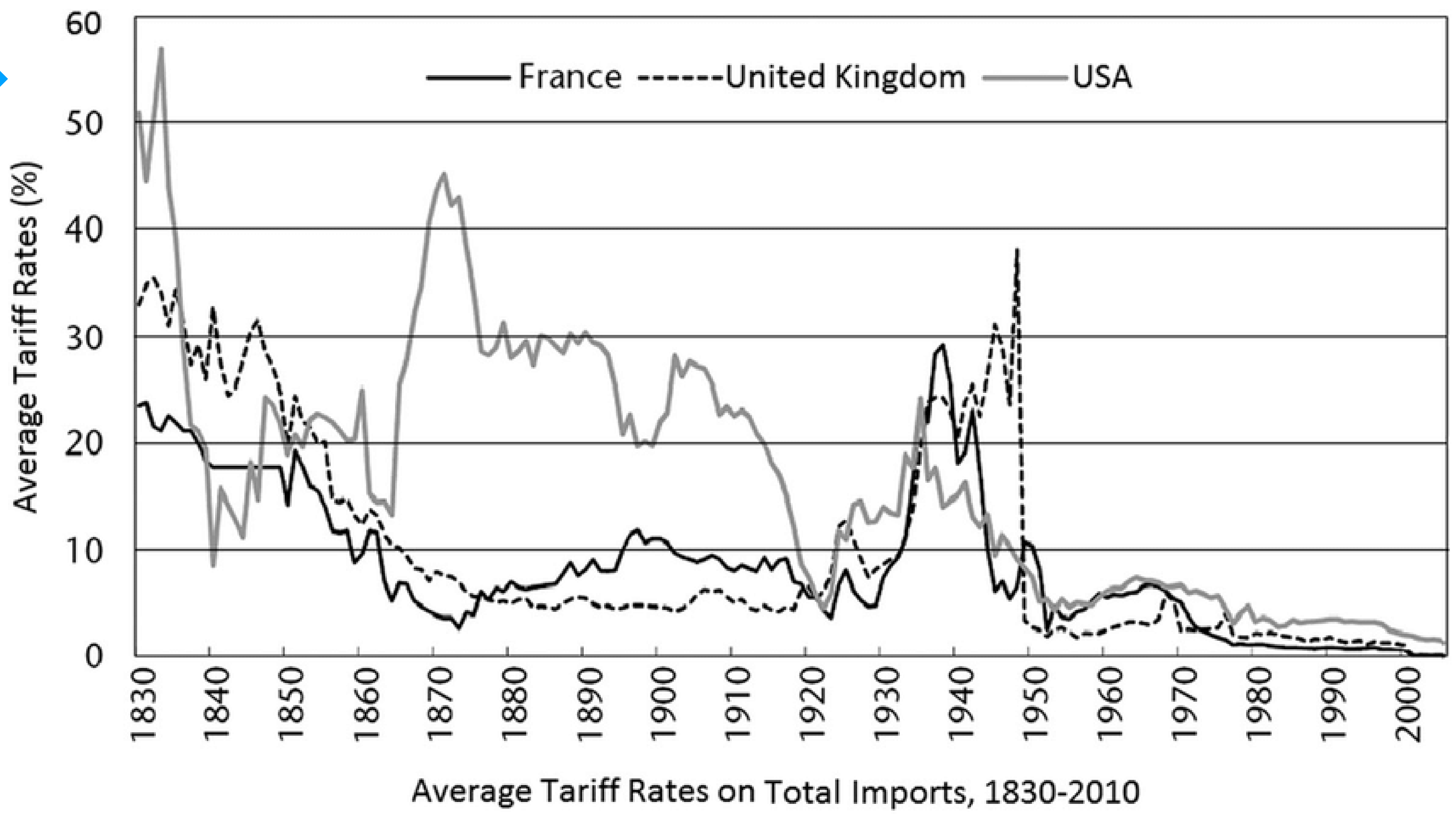
- Broad and robust evidence on the **positive impact of trade liberalization on economic growth**:

  - Sachs and Warner (1995): opened economies grew about 2.45 pp faster than closed economies between 1970-1989.

  - Wacziarg and Welch (2008): between 1950 and 1998, countries that liberalized their trade saw annual growth rates 1.5 pp higher than before trade liberalization.

  -Dollar and Kraay (2004): globalizers grew at 5% per capita during the 1990s, while non-globalizers only at 1.4%.

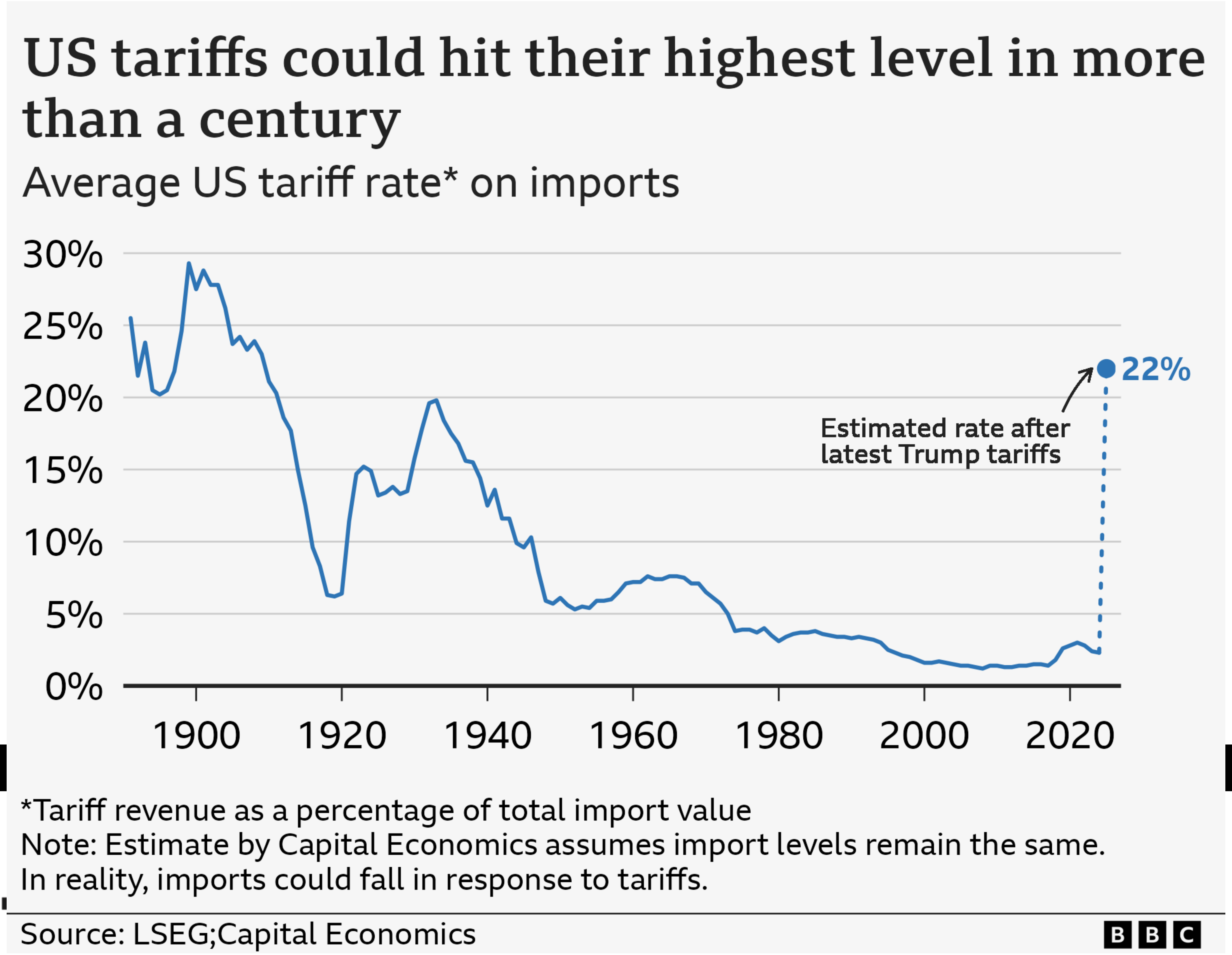
  -Frankel and Romer (1999) - IV, causal: 1 pp in the ratio of trade to GDP increases GDP per capita by at least 0.5 percent.

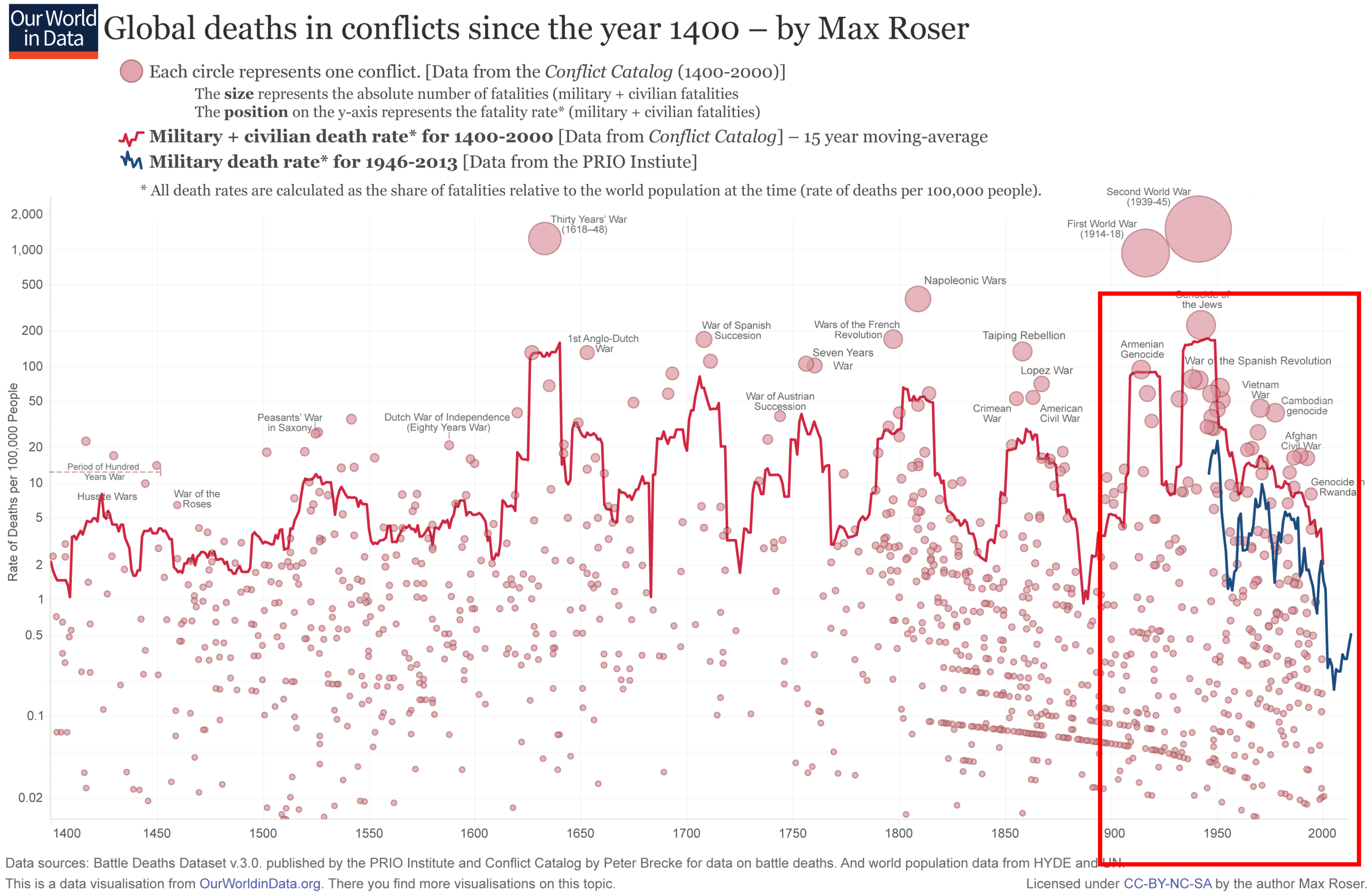


Sources: Imlah, Economic Elements

Trade liberalization and peace

- Two main channels:
  - Trade => Economic growth => more stability => better leaders and less conflict.
  - Trade => More interdependency across countries => lower incentives for conflict.
- Empirical evidence on trade integration as contributing to peace:
  - Lee, John and Pyun (2016) – 290,040 country-pair observations from 1950-2000.
  - Gartzke and Pyun (2001) – economic interdependence reduces the risk of military conflict between states.





Trade liberalization and conflict?

A complex interaction in resource-rich developing countries:

- Resource curse and the “rapacity effect”: trade liberalization might create/increase the value of contestable resources that increase violence incentives, when combined with... (*Many reference from the course*).
  - Weak institutions.
  - Pre-existing resource dependence + commodity type.
  - Lack of economic diversification.

- Impact:
  - Lowering wages in non-resource sectors.
  - Rising inequality.

If trade liberalization can exacerbate the resource course, might increasing world tariffs improve the prospects of resource-rich developing countries?

Trump's tariff war – the expected economic impact

- Starting point of the new trade war centered on the US and its major trading partners: China (60% tariffs), Canada, Mexico and EU (25% tariffs).

- Retaliation to the US tariffs + no evidence of widespread non-US trade wars. Dormant risk.

- OECD estimates:
  - Global GDP growth, from 3.2% in 2024 to 3% in 2026.
  - USA: from 2.8% in 2024 to 1.6% in 2026.
  - Mexico: recession in 2025 and 2026 (-1.3% and -0.6% respectively). Previous estimates 1.5% and 1.7%.
  - Canada, form 2% to 0.7% for both years.
  - EU, not that strong effect (0.8% in 2024, 1% in 2025, 1.2% in 2026).
  - China: from 4.8% in 2024 to 4.4% in 2026.

- Important inflation increases! 10% tariff increase estimated to increase 0.4 pp/year global inflation and 0.7 pp/year for the US.

- What about the Dollar?

Trump's tariff war – the expected economic impact in LMIC

- Slower Growth: Developing countries face **weaker export demand and lower investment** as global trade slows, especially those linked to US and China supply chains.
- Rising Costs: **Higher input prices and supply chain disruptions increase inflation** and **production costs in emerging** economies.
- Financial Strain: tighter global financial conditions make it **harder for developing countries to access capital** and manage debt.
- Vulnerable Sectors: Countries reliant on manufacturing exports, commodity sales, or foreign aid are hit hardest, **risking setbacks in poverty reduction and development**.

While indiscriminate trade liberalization risks exacerbating the resource curse, reverting to protectionism would likely deepen structural weaknesses.

Thanks for your attention and contributions!