

International Trade I: Theory

Introduction: Why Study International Trade?

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Logistics

- International Trade I: Theory \Rightarrow course focuses on *theory*
- Assessment:
 - ▶ 2 problem sets (30% of final grade)
 - ▶ 1 written assignment (20% of final grade)
 - ▶ Final in-class exam (50% of final grade)
- Contact info
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- Office hours: by appointment
- Lecture notes posted before each lecture

Outline of the Lecture

- 1 Introduction
- 2 A Bit of History
- 3 Trade Flows Today
- 4 Who trades with whom?
- 5 What do countries trade?
- 6 Course Objectives

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Why study International Trade?

- Practice: Topical, important. . .
 - ▶ Big part of economic activity (World average about 30% of GDP)
 - ▶ Big item in news and public policy discussions
 - ▶ Major focus of international institutions: WTO, World Bank, IMF, . . .
- Theory: Why a separate sub-discipline?
 - ▶ “Just” microeconomics in open economies
 - ▶ Special feature: Different degrees of international mobility (of goods, factors, firms. . .)
 - ▶ Key questions:
 - ★ Why do countries trade?
 - ★ What do countries trade?
 - ★ Who gains from trade?
 - ★ How and why do governments intervene in trade?

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A Brief History of World Trade, 1850- : A Tale of Two Globalizations

- 1850-1914: First Globalisation
- Closure 1914-1945
- Re-opening 1945- : Second Globalisation
- The Crisis of 2008- : Hiccough or Slip-Up?
- Recently: Globalisation backlash

1850-1914: First Globalisation

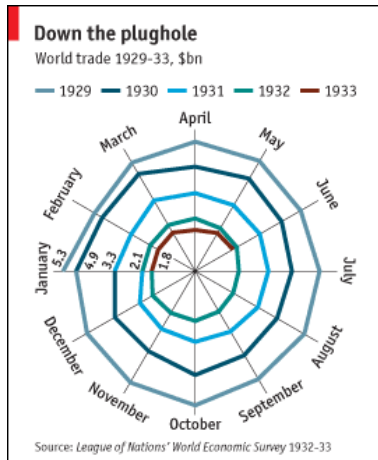
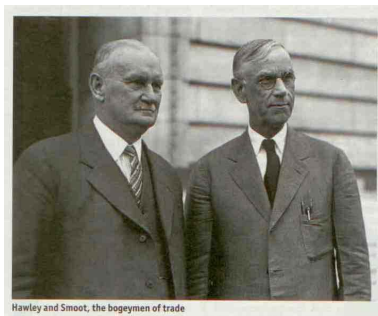
- Repeal of the Corn Laws 1846: UK starts to import food in exchange for industrial goods
- Global capitalism spread through conquest and colonialism
- Huge reductions in transport costs
 - ▶ Steam power: rail, steamships; Suez Canal 1869; refrigeration
- Improvements in communications
 - ▶ Submarine telegraph cables linking financial markets: English Channel in 1851, transatlantic 1866
- Mass migrations: Europe to New World
- Foreign direct investment: ditto
- Enormous growth in trade helped by stable currencies: Gold Standard

Closure 1914-1945

- 19th century global financial system failed. UK's role declined, US was not ready to assume the role.
- Gold Standard failed in 1920s
- State-led anti-trade regimes
 - ▶ Bolshevik Revolution 1917 in Russia
 - ▶ Fascism in Italy 1920s, Nazism in Germany 1936, Franco victory in Spanish Civil War 1936
 - ▶ State-led approaches to economic development in Mexico under revolutionary regime and in Argentina, Brazil and Chile under authoritarian regimes
- Great Depression in 1930's
- Collapse of world trade
 - ▶ U.S.: Smoot-Hawley tariff 1930

Hawley-Smoot and the death spiral of world trade in the 1930s

- See The Economist, 20/12/08



Re-opening 1945- : Second Globalisation

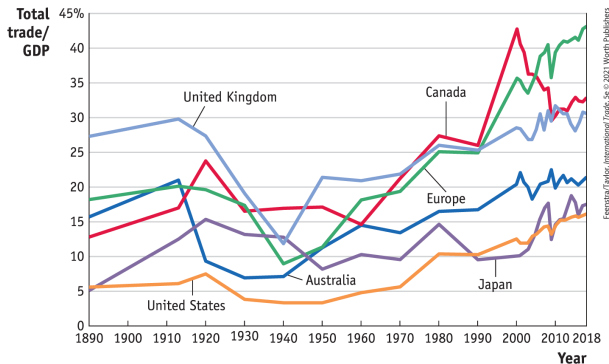
- Three blocks until late 1980's:
 - ▶ 1/3 of world's population: Socialist
 - ▶ 1/2 of world's population: State-led industrialization
 - ▶ 1/6 of world's population: Capitalist
- Capitalist model increasingly dominant:
 - ▶ Technological dominance of U.S.
 - ▶ European integration: EEC 1957, EU 1992
 - ▶ Fall of Berlin Wall 1989
 - ▶ State-led industrialization failed to produce growth

Rapid Growth in Trade

- From conclusion of GATT in 1947 to first oil shock in 1973 world exports grew at an unprecedented 8.8% a year
- From 1973-80 and 1980-90 they grew by 4.4% and 4.3% respectively
- From 1990-1997 growth has recovered to 7% p.a

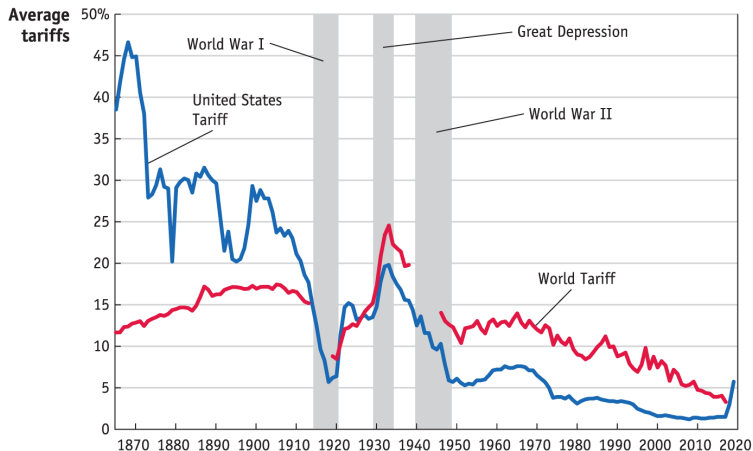
Intensive and extensive opening

- World is almost as *intensively* open as in 19th Century (trade as % of GDP)



- And certainly more *extensively* open (volumes of trade)

Import tariff evolution



Feenstra/Taylor, International Trade, 5e © 2021 Worth Publishers

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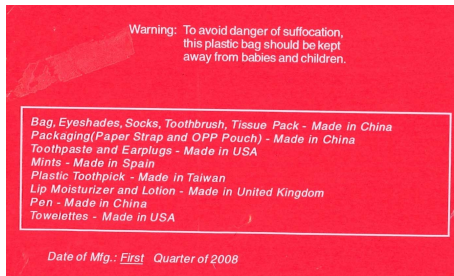
Many more things now tradable

- Result of lower transport costs: containerization, airfreight
 - ▶ Cut flowers from Colombia, Kenya reach U.S., Europe within a day
 - Disintegration of production: long and complex supply chains
 - ▶ iPod: Of \$299 price, definite country attribution to value added is
 - ★ US: \$163 = \$80 Apple's intellectual property right (figuring out how to combine 451 generic parts!) + \$75 distribution and retail + \$8 various domestic components
 - ★ Japan: \$26 = \$19 Toshiba's IPR in hard drive + \$7 other components
 - ★ China, Philippines, Korea etc.: \$110 Parts and labor for other components and assembly, not yet broken down
- (Source: Varian, NYTimes June 28, 2007, Economic Scene)

Disintegration of production: further examples

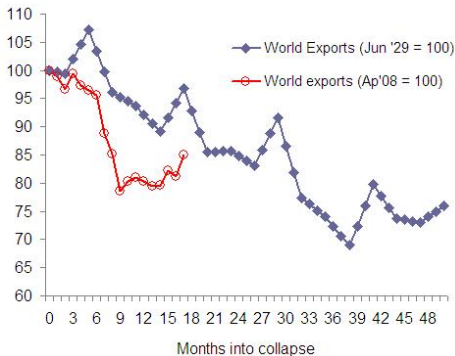
- Barbie: Of \$10 US price
 - ▶ China: \$1 (65 cents materials, 35 cents labor)
 - ▶ Hong Kong: \$1 transport and profit
 - ▶ US: \$8 = \$7 transport, marketing, wholesale, retail markups+ \$1 Mattel profit
 (Source: Feenstra J Econ Perspectives 1998)

- Overnight amenity kit from American Airlines:



The Crisis of 2008- : Hiccup or Slip-Up?

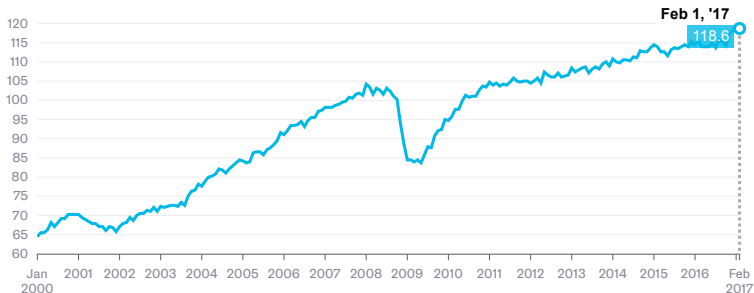
- Collapse of world trade: The great trade collapse not as large as that of the Great Depression, but much steeper.
 - ▶ It took 24 months in the Great Depression for world trade to fall as far as it fell in the 9 months from November 2008.



(Source: Eichengreen and O'Rourke, VoxEU 2009)

2010-: Recovery

- World trade volumes recovered post 2009

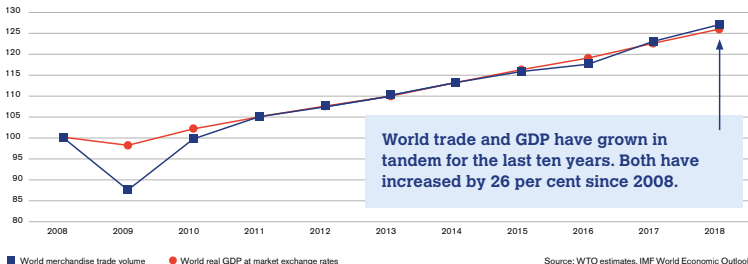


(Source: CPB World Trade Monitor)

2008-2018: Rise in trade volume

- World trade and GDP have grown in tandem for the last ten years

World merchandise trade volume and real GDP at market exchange rates, 2008-2018
(Indices, 2008=100)



(Source: WTO World Trade Statistical Review 2019)

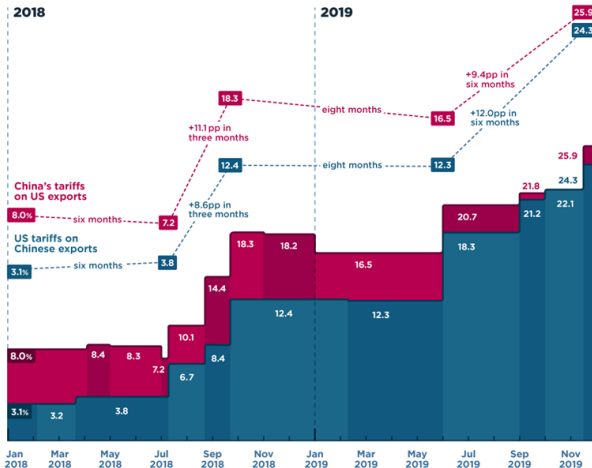
2016-: Globalisation backlash



Source: The Economist, Jul 30th 2016

Trade war is getting worse...

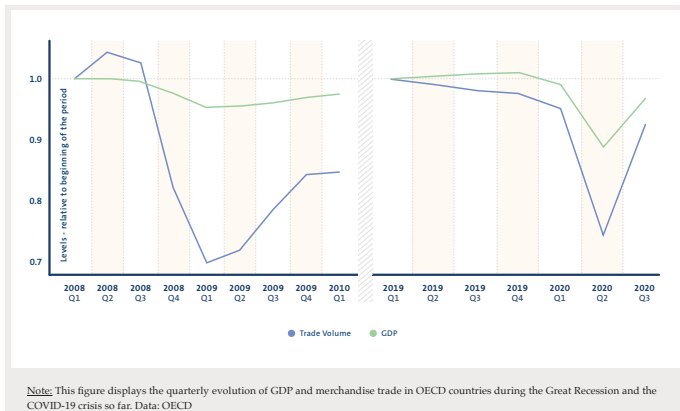
Average tariff rate, percent



Source: Chad P. Bown's blog post, "US-China Trade War: The Guns of August"

And what about COVID-19 pandemic?

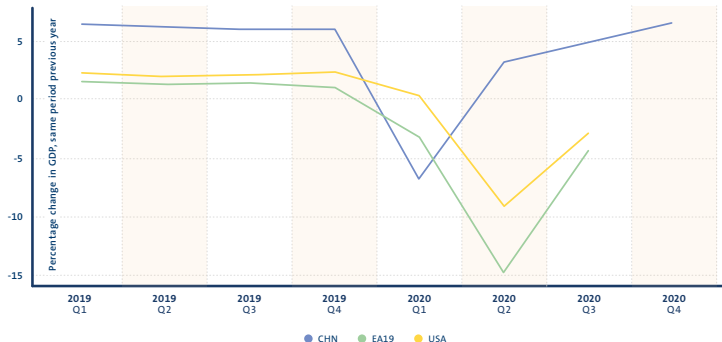
- International trade surprisingly resilient



Source: Le Moigne and Ossa (2021)

Fast recovery of global supply

- China's short-lived recession

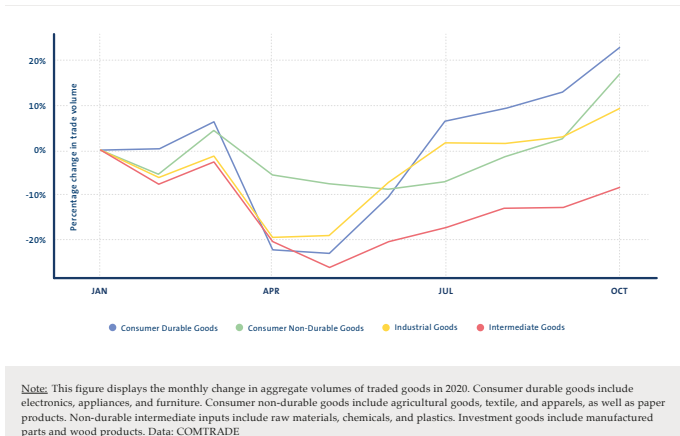


Note: This figure displays the quarterly change relative to the previous year in the GDP of China, the Eurozone, and the U.S. over the period 2019–2020. Data: OECD

Source: Le Moigne and Ossa (2021)

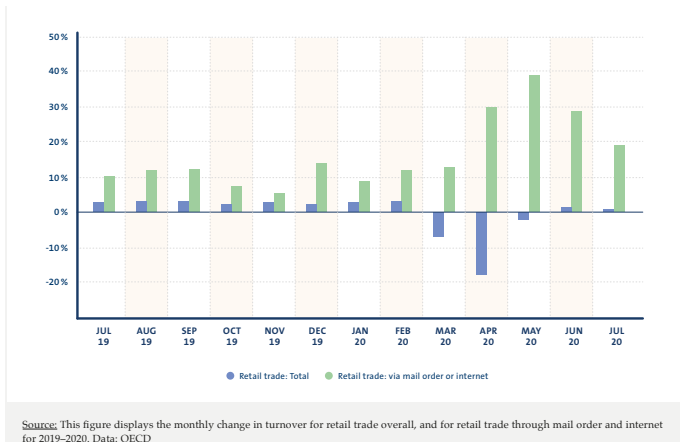
Recovery of global demand for tradables

- Increased demand for durables (e.g. electronics) and medical goods (e.g. PPE)



Source: Le Moigne and Ossa (2021)

Boom of online shopping

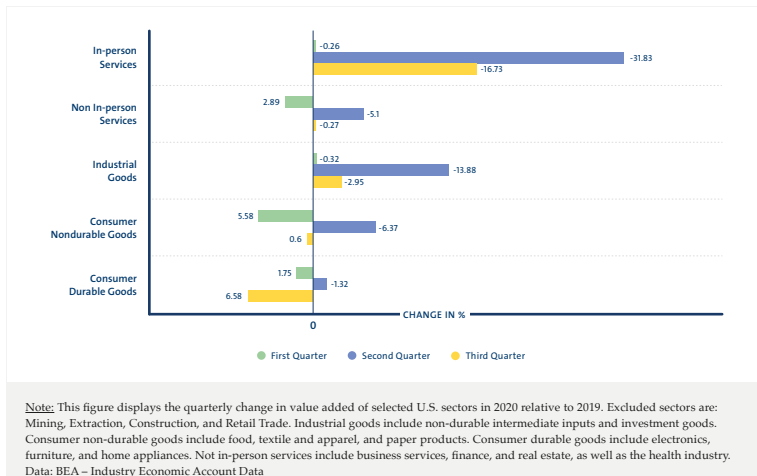


Source: Le Moigne and Ossa (2021)

- Also lower trade costs: removal of export restrictions, fuel prices ↓

BUT recession in services

- Impossibility to consume in-person services

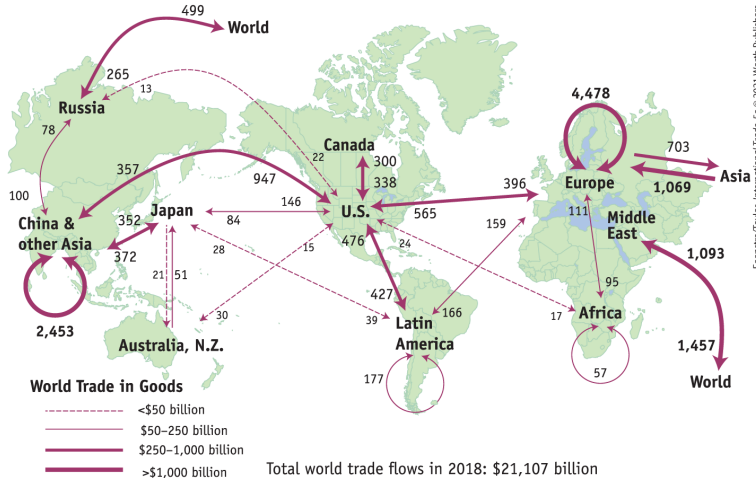


Source: Le Moigne and Ossa (2021)

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A Map of International Trade

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Shares of World Trade in 2006

Share of World Trade (%)		Share of World Trade (%)	
Europe (internal trade)	31	Asia (exports)	27
Europe (internal) plus trade with the U.S.	37	Middle East and Russia (exports)	9
Americas (internal trade)	11	Africa (exports)	3
Europe and the Americas (exports)	60	Australia and New Zealand (exports)	1.4

- Europe and Americas combined account for over one-half (60%) of world exports
- Asia accounts for another one-quarter of world exports

Distance and Size Matter

- Among the biggest trading partners of the USA in 2008 = 3 biggest EU economies (Germany, UK and France)
- Europe and North America are the most important trading partners for the majority of other countries
- The size of countries matters: trade increases with size
- The vast majority of EU trade within the EU
- Biggest trading partner of the USA = Canada
- The distance between countries matters: trade decreases with distance

The Gravity Equation of Trade

- Similar to Newton's Universal Law of Gravitation

- The force of gravity F_g between two objects of respective mass M_1 and M_2 , and located distance d apart:

$$F_g = G \frac{M_1 \times M_2}{d^2}$$

- The Gravity Equation in Trade

- Tinbergen (1962), Anderson and van Wincoop (2003)

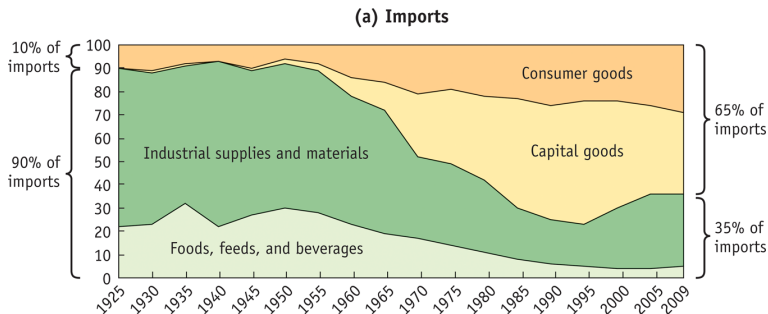
$$\text{Trade} = B \frac{GDP_1 \times GDP_2}{d^n}$$

- Explanatory power
 - Inter-national vs. intra-national trade: Border puzzle. . .
 - Control variables

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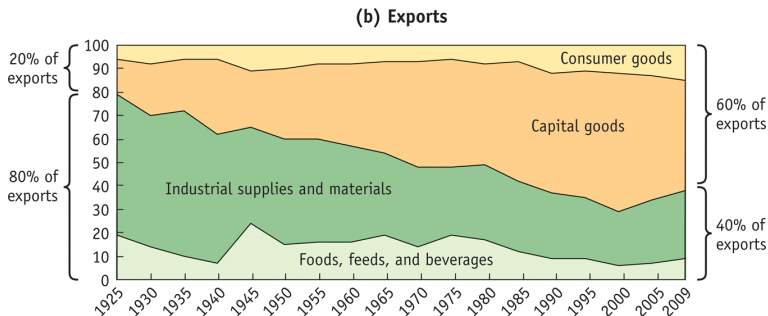
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US Imports 1925 - 2009

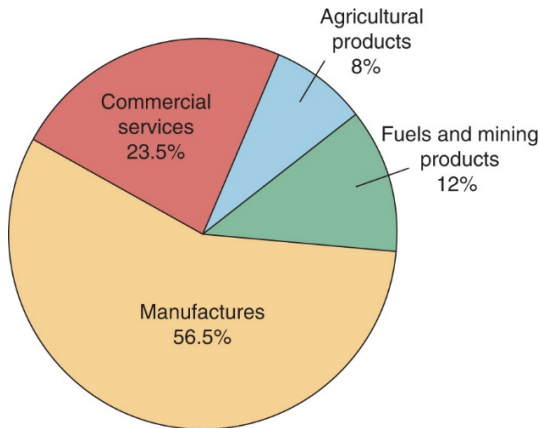


- Drastic change in the composition of US imports (and exports of next slide)
- Foods, feeds and beverages = 90% of imports in 1925, but only 35% in 2009
- Capital plus consumer goods plus automobiles have increased from 10% to 65%

US Exports 1925 - 2009



Composition of World Trade, 2015



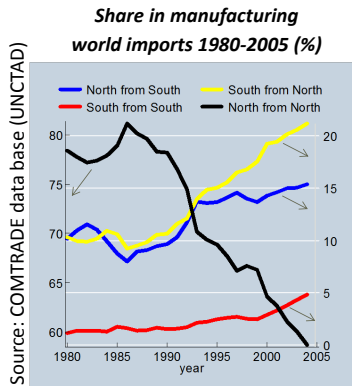
Source: [KOM]

New “type” of trade

- Intra-industry trade: Germany exports cars to Japan and imports cars from Japan at the same time
- Trade between firms: multinational firms and delocalisation
- Production chain segmentation and outsourcing
- Intra-firm trade represents more than 1/3 of North-North trade

North-North vs North-South Trade

- North-North trade prevalent
- Emergence of developing countries (in particular newly industrialised countries)



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Why do countries trade?

Two types of explanations (models):

- **“Old trade theory”**: trade based on *comparative advantage* → North-South trade
- **“New trade theory”**: trade based on *economies of scale* → North-North trade

Who gains from trade?

- Overall?
- Distribution of gains from trade?

Effect of trade policy and putting current debate in context

- Role of trade policy
- Putting current trade-related debate in context
 - ▶ President Donald J. Trump's inauguration speech:
"We must protect our borders from the ravages of other countries making our products, stealing our companies, and destroying our jobs," [...] "Protection will lead to great prosperity and strength."
 - ▶ Brexit
 - ▶ ...