

National Economic Education Delegation

- **Vision**

- One day, the public discussion of policy issues will be grounded in an accurate perception of the underlying economic principles and data.

- **Mission**

- NEED unites the skills and knowledge of a vast network of professional economists to promote understanding of the economics of policy issues in the United States.

- **NEED Presentations**

- Are **nonpartisan** and intended to reflect the consensus of the economics profession.



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International Trade and the Pandemic

Alan V. Deardorff
University of Michigan

For presentation to San Mateo Retirement Group
February 10, 2021



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Overview

• Cases

- Started in China
- Spread to the world in two (or three) waves, so far
- Hit the Americas and Europe especially hard
- Deaths surged early and then grew more slowly than cases as treatments improved

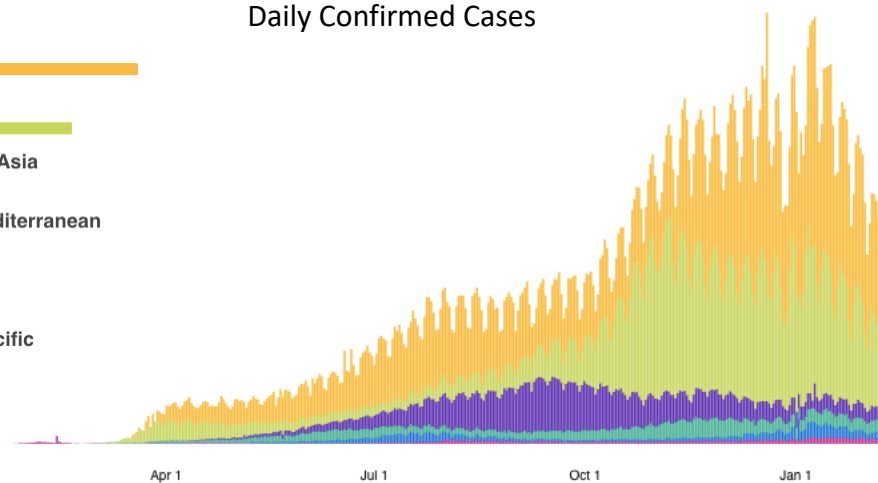
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Cases

Daily Confirmed Cases

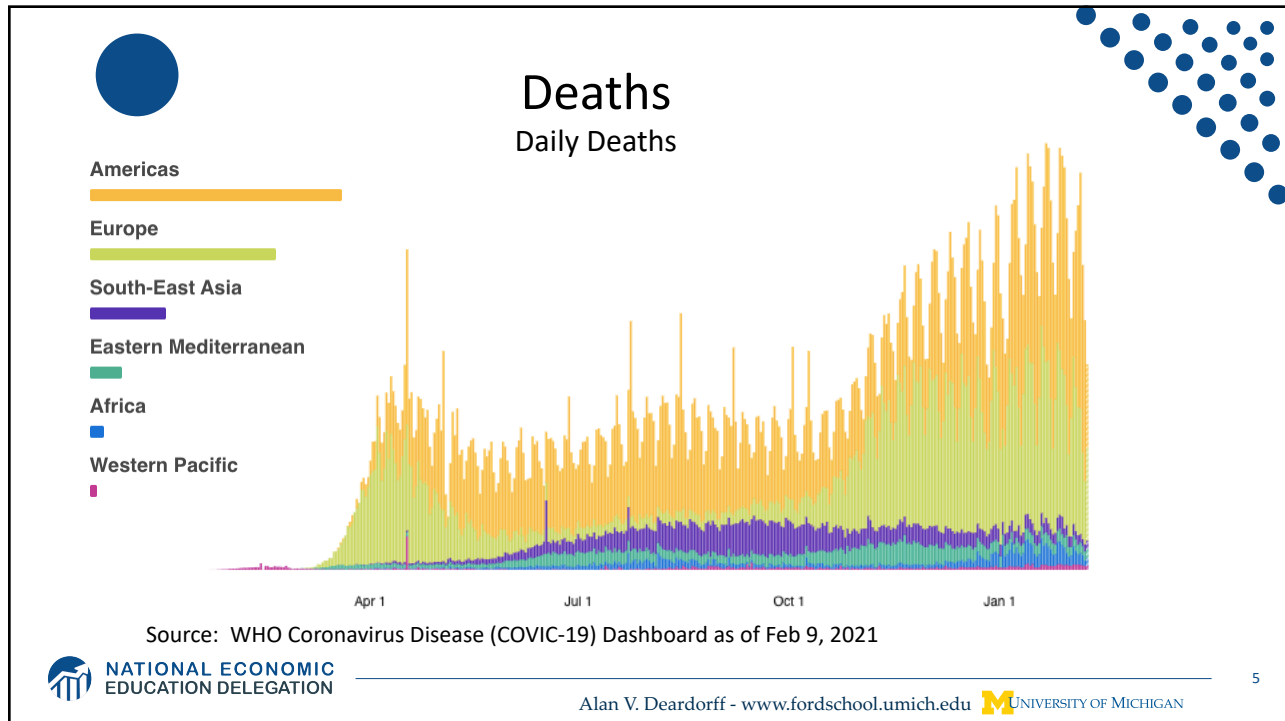
- Americas
- Europe
- South-East Asia
- Eastern Mediterranean
- Africa
- Western Pacific



Source: WHO Coronavirus Disease (COVID-19) Dashboard as of Feb 9, 2021

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Overview

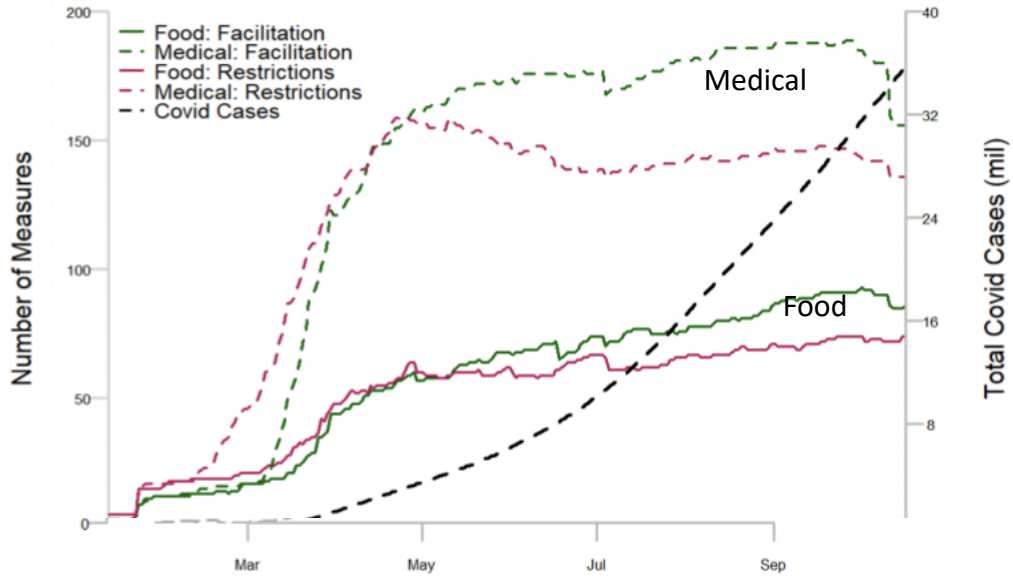
- **Trade Policies**
 - Included both
 - Import facilitation, and
 - Export restriction
 - Both highest for medical and high for food
 - Facilitation was somewhat more common than restriction
 - Both began before cases surged

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Figure 1 Global COVID-19 cases and trade policy measures

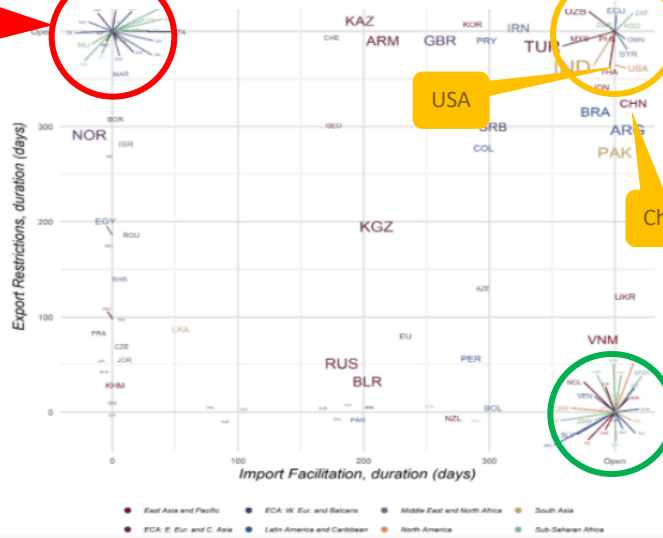


Source: Evenett et al.

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Countries differ greatly in the nature of their interventions

Trade Policy Responses: Who did what for how long?



Source: Evenett et al.

Notes: Coloured lines point to the names of countries located in the same space of a graph. Countries are displayed in terms of the duration (in days) of the longest period with at least one active import liberalization measure (horizontal axis) and at least one active export restriction (vertical axis). The value "Open" at the end of each axis identifies measures without an end date or that extend beyond December 2020. The font size of each country code is proportional to the total number of measures implemented; colours identify the associated world region.

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International Trade and the Pandemic

Outline

- **Causes of the Pandemic**
- **Effects of the Pandemic**
 - On Economies, Including Trade
 - On Trade Policies
- **Role of Trade During the Pandemic**

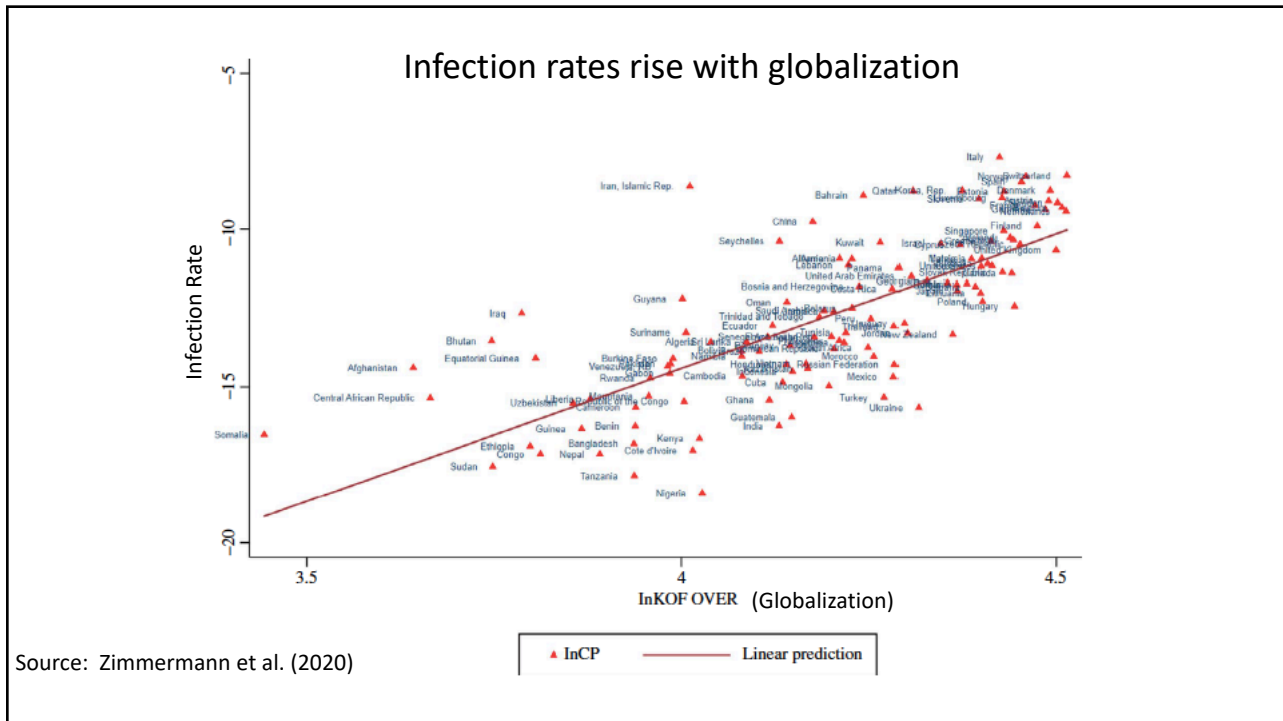
Causes of the Pandemic

Causes of the Pandemic

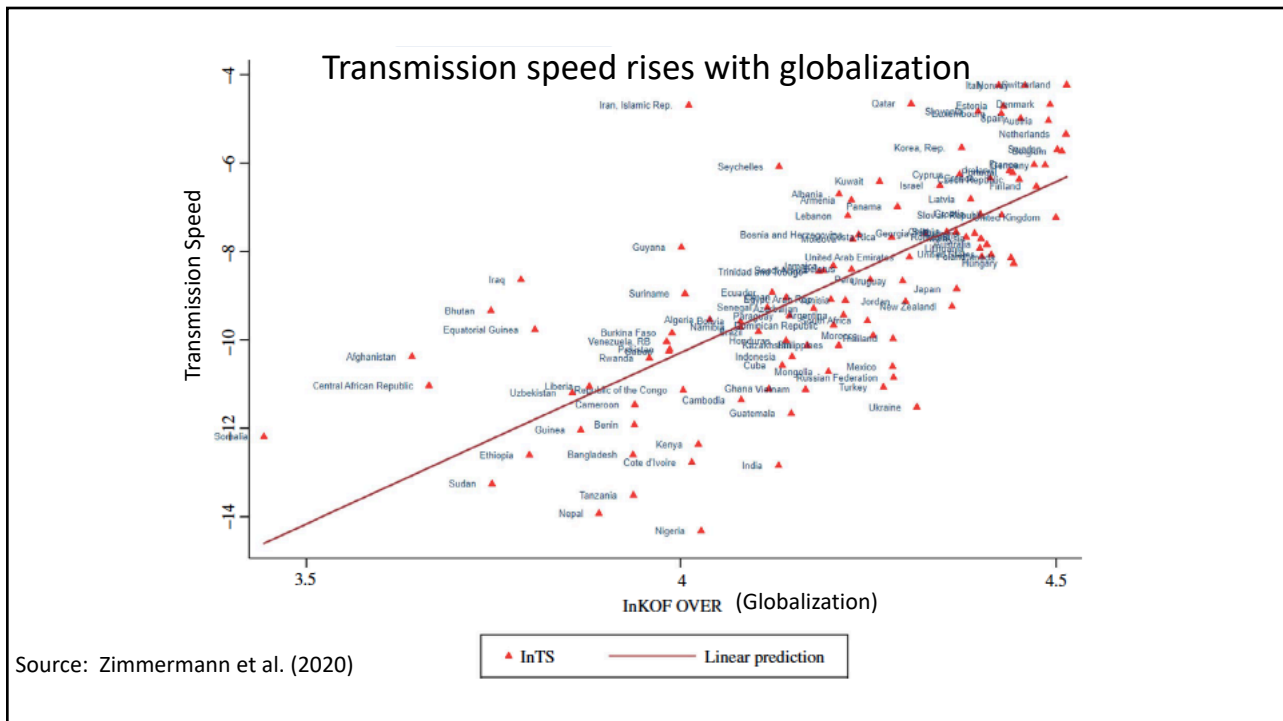
- **Does trade cause new infections?**
 - No. These arise from mutations, often in animals and then spread to humans
- **Does trade spread infections?**
 - Yes. Trade requires movement of people across borders, carrying infections
 - The Black Death (bubonic plague)
 - “is believed to have been spread by both land and sea, originating in China and following the trade routes to Europe and the Middle East.”
 - The 1918 Spanish Flu: but spread more by soldiers than by trade

Causes of the Pandemic

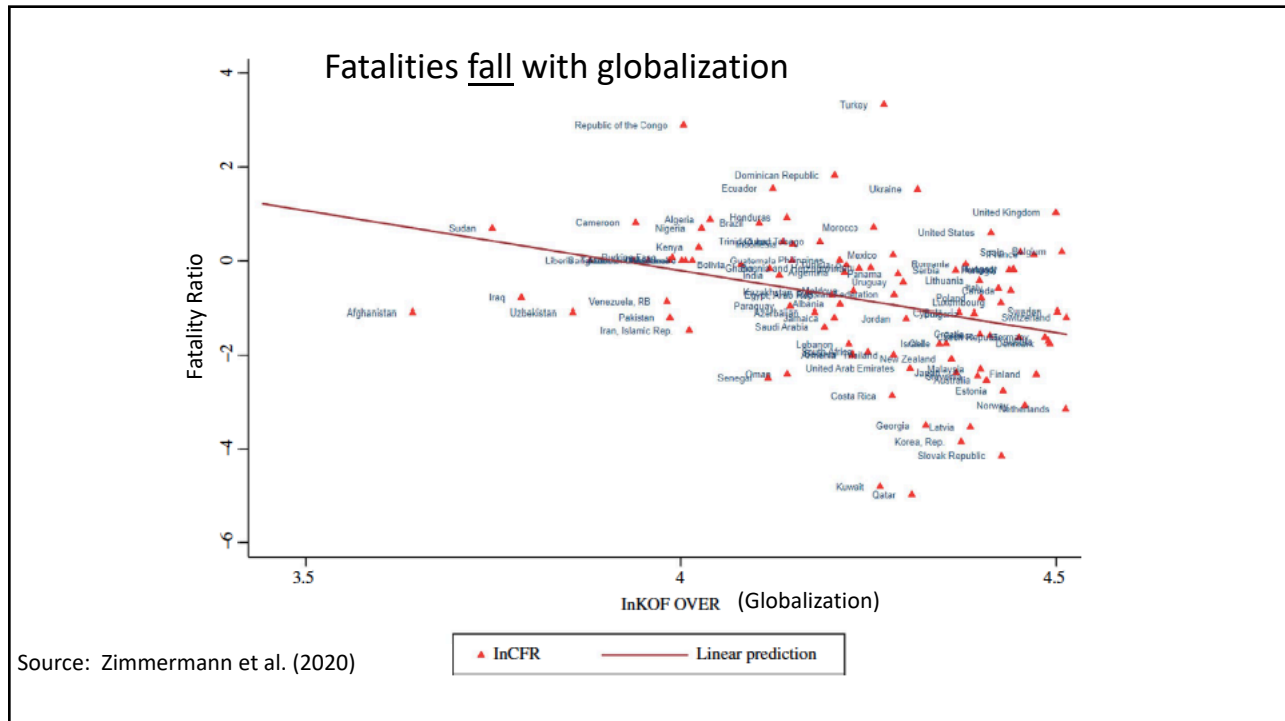
- **Studies Relate Globalization and Spread of Pandemic**
 - Zimmermann et al. find, across countries:
 - Infection rate rises with globalization
 - Transmission speed rises with globalization
 - Fatalities fall with globalization
 - (but probably because globalization is correlated with higher incomes and thus better treatment)
 - Farzanegan et al. report similarly



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Causes of the Pandemic

- **Globalization and Spread of Pandemic**
 - Note that globalization is not just trade
 - It includes
 - International trade and investment
 - International tourism
 - International students
 - Migration
 - International transportation

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Effects on Economies

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Effects on Economies

- **Effects of the Pandemic on Economies**
 - Trade plummets
 - Travel halted
 - Shipping declines
 - Supply chains interrupted

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Effects on Economies

Trade

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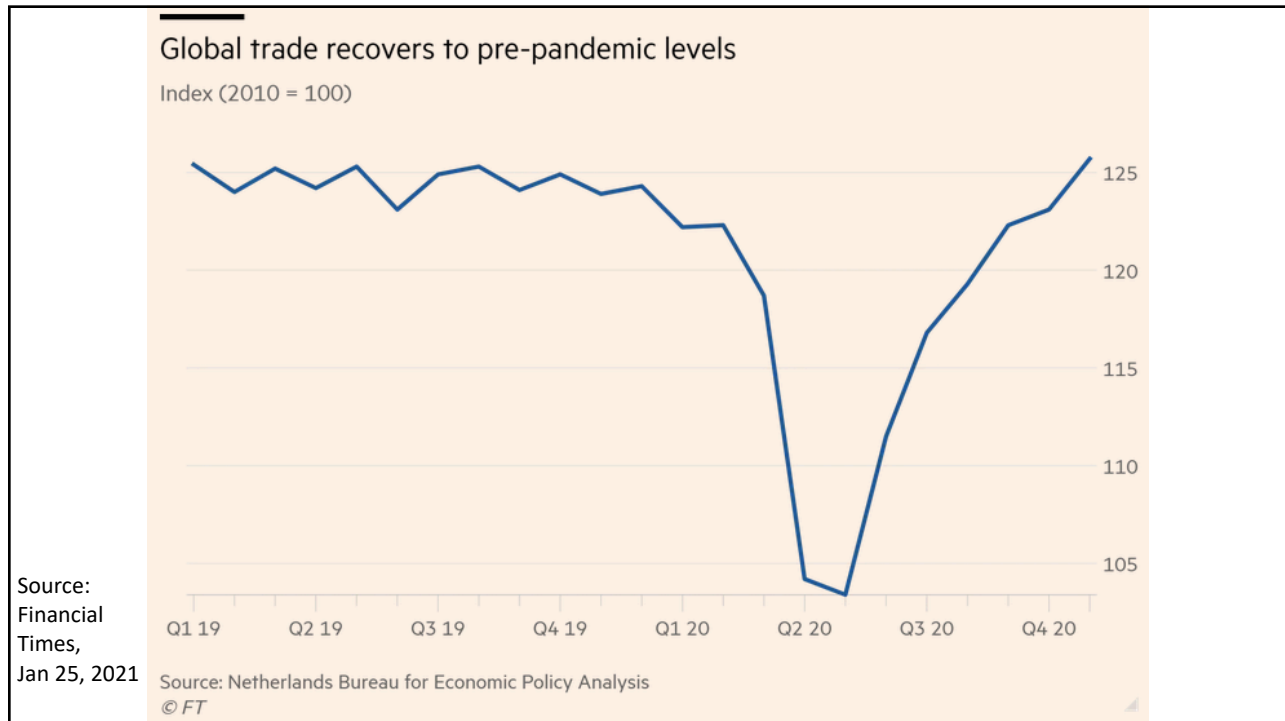
Effects on Economies

- **Trade**
 - Pandemic was expected to reduce world trade, and did
 - US was typical; China, was not
 - Trade with China was crucial for dealing with pandemic
 - Trade in many products were affected
 - Global trade has now recovered

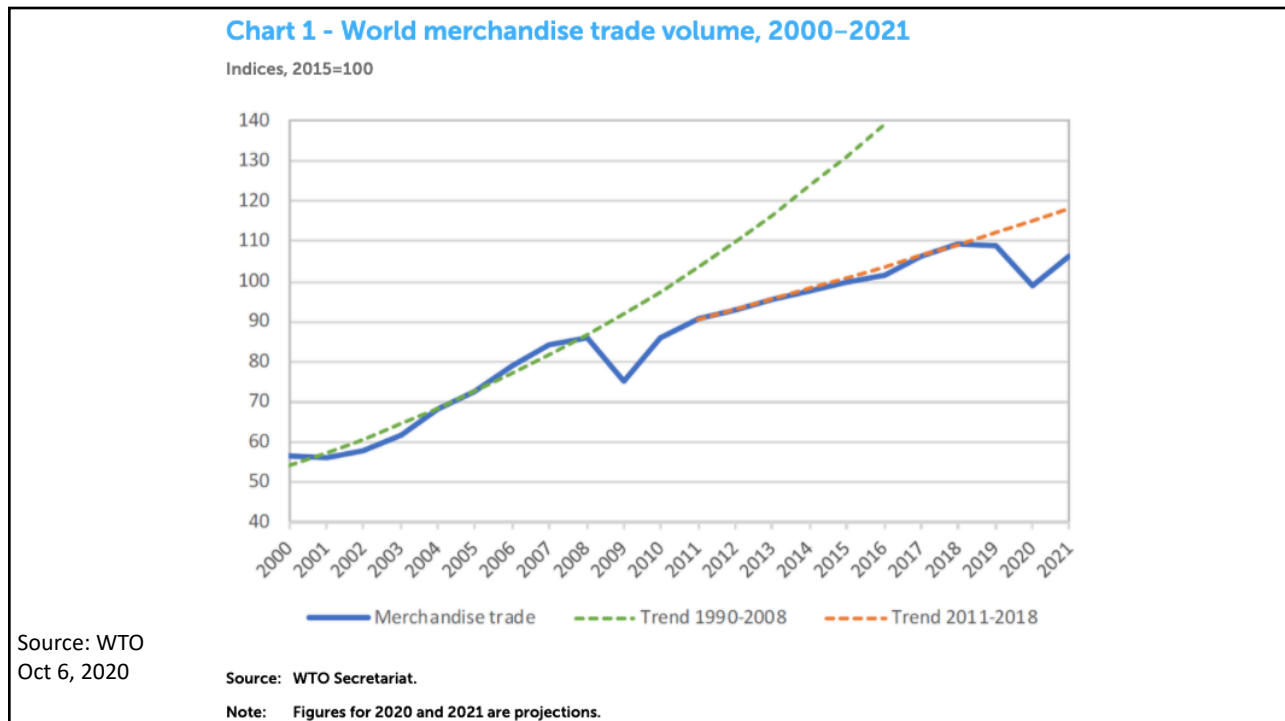
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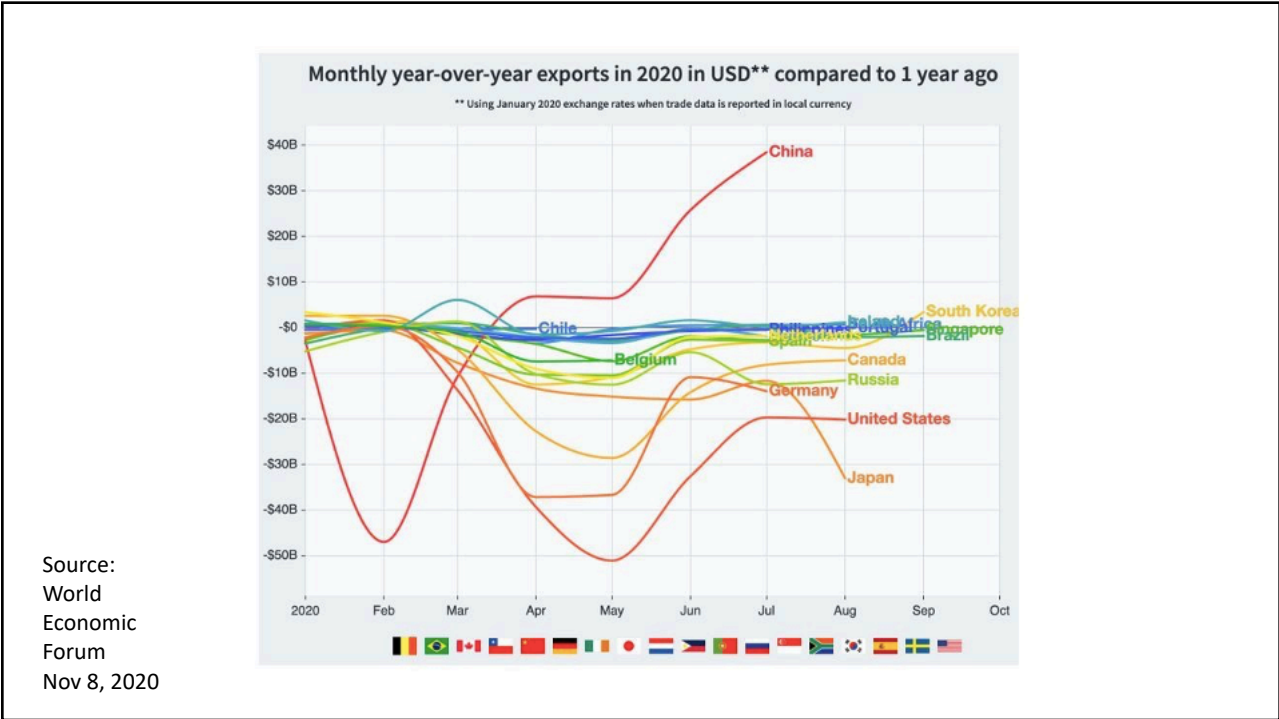
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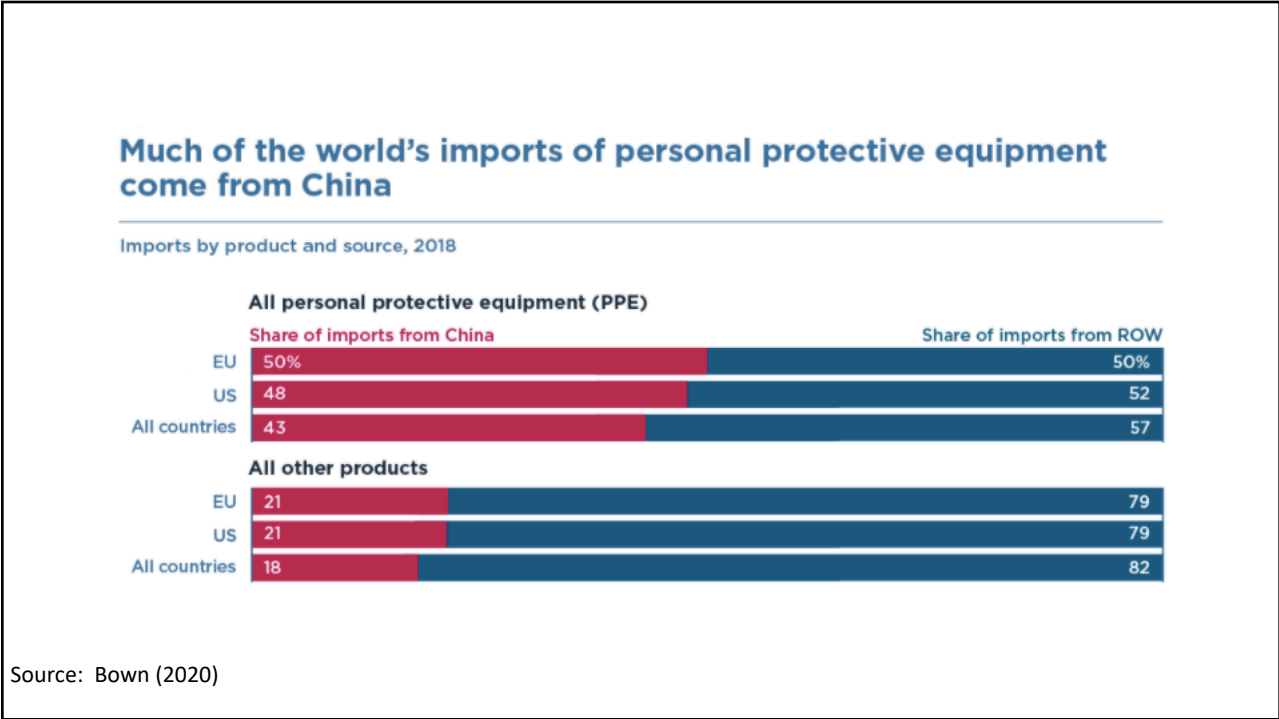
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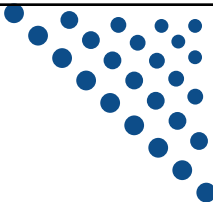
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Effects on Economies

Travel

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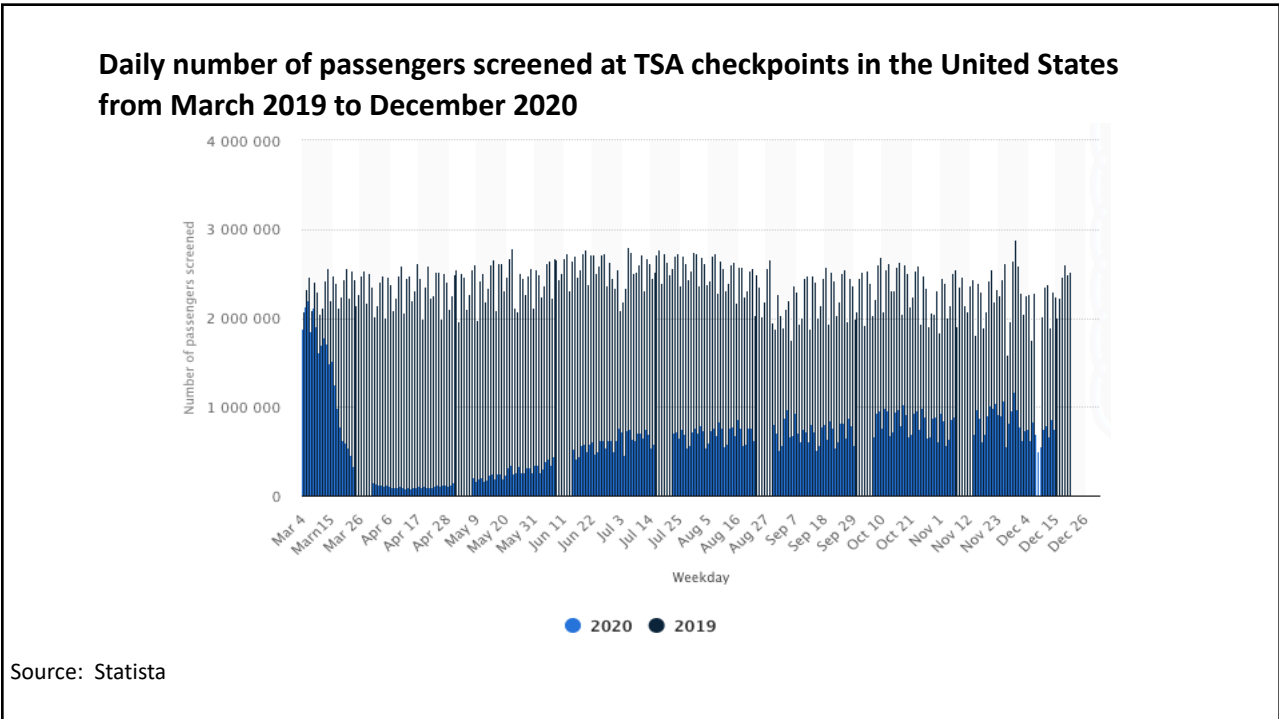
Effects on Economies

- **Travel**
 - Fell drastically and has only partially recovered
 - Symptoms
 - Passengers
 - Airline stock prices
 - Reasons:
 - Travel restrictions and border closures
 - Delays at border

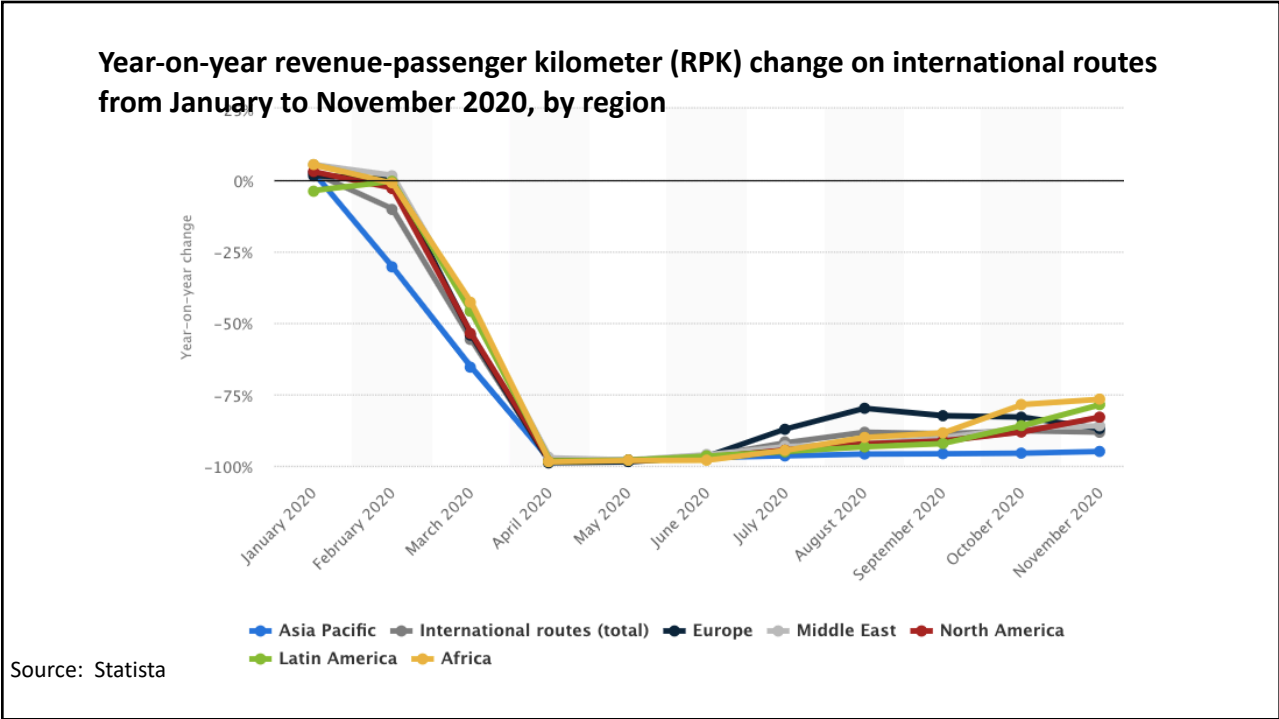
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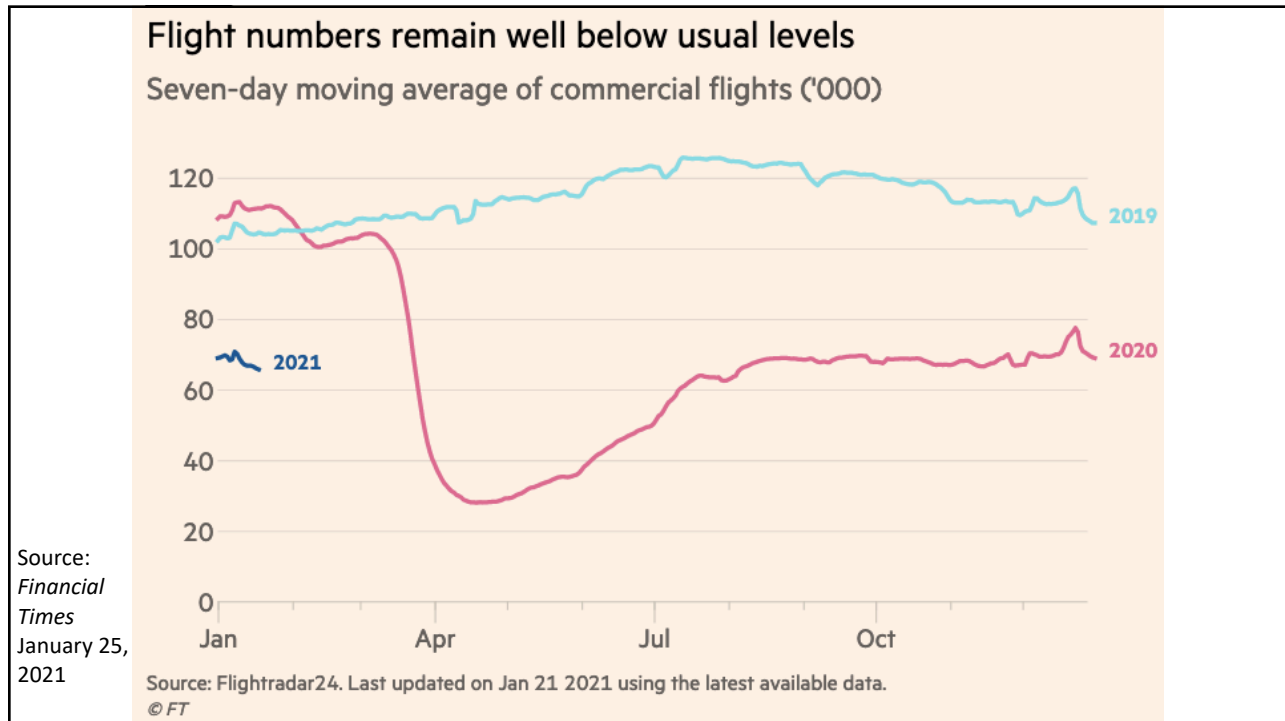
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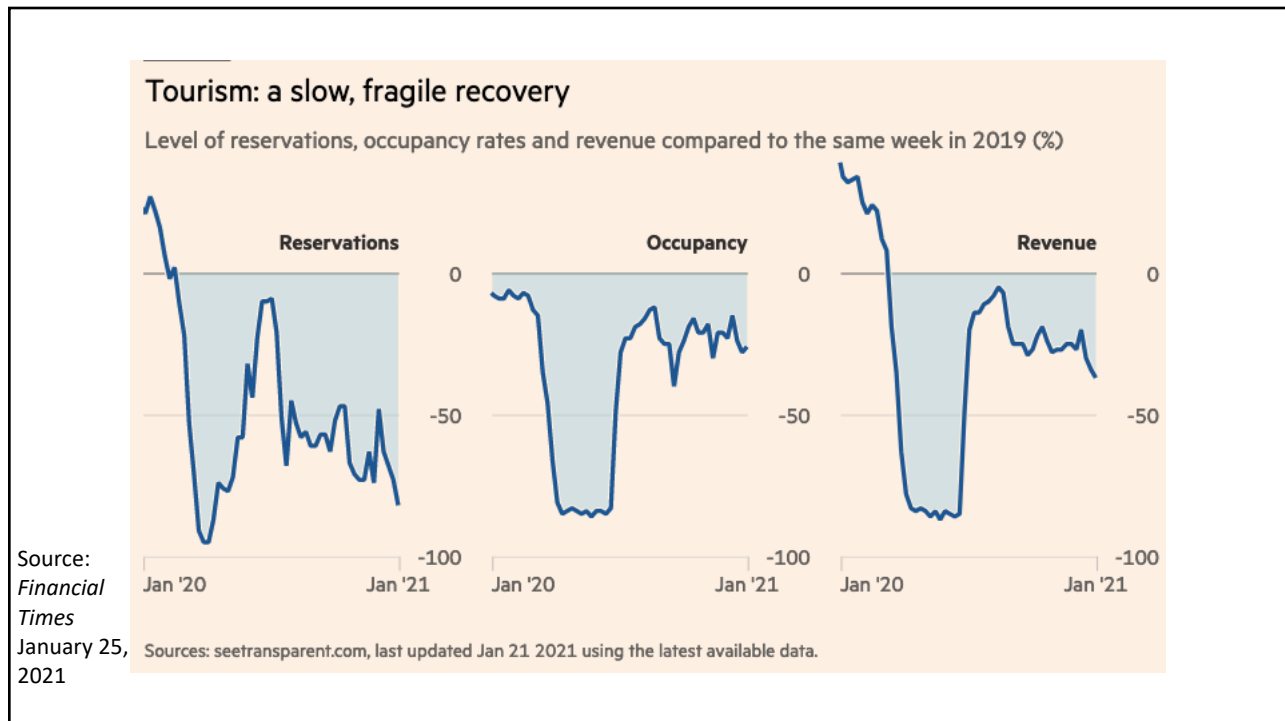
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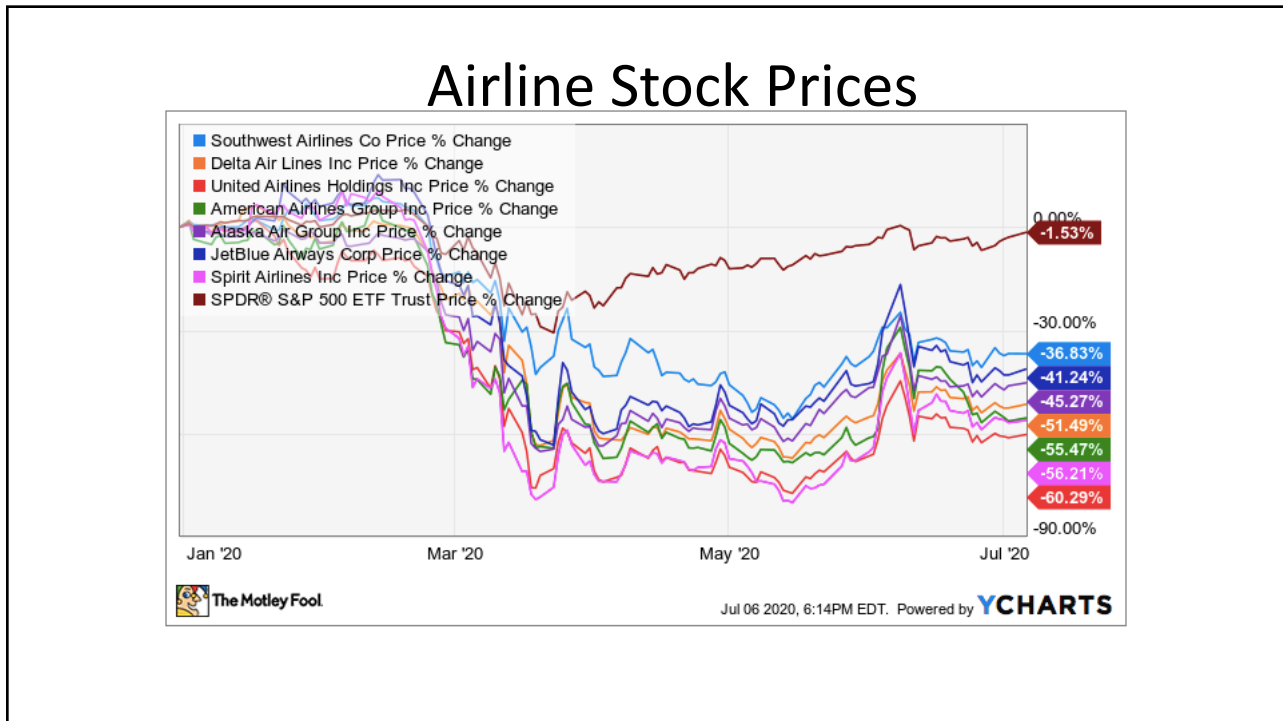
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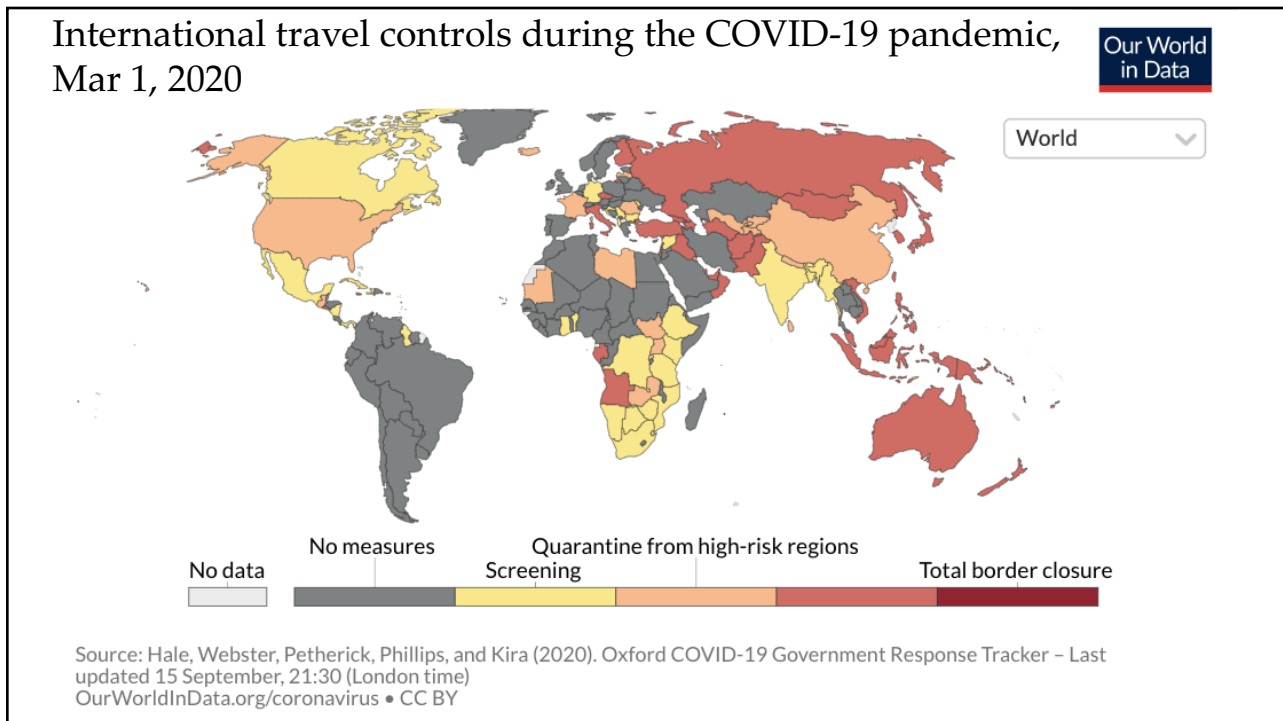
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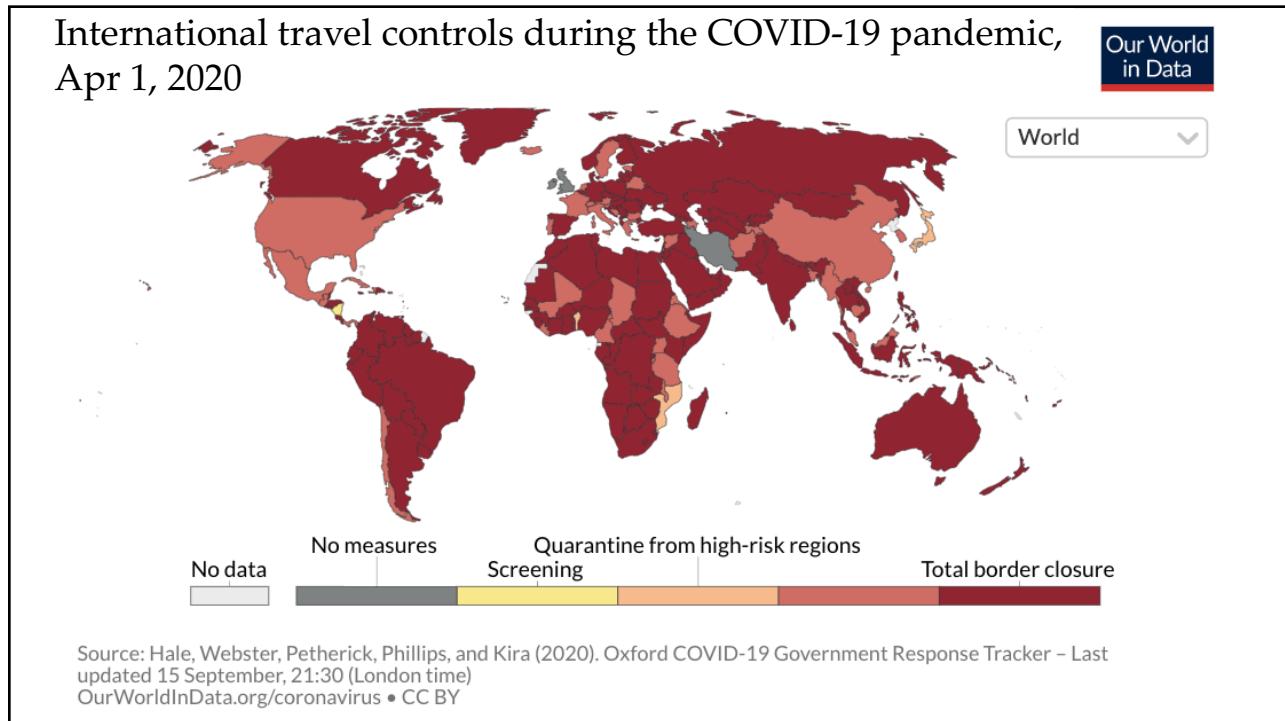
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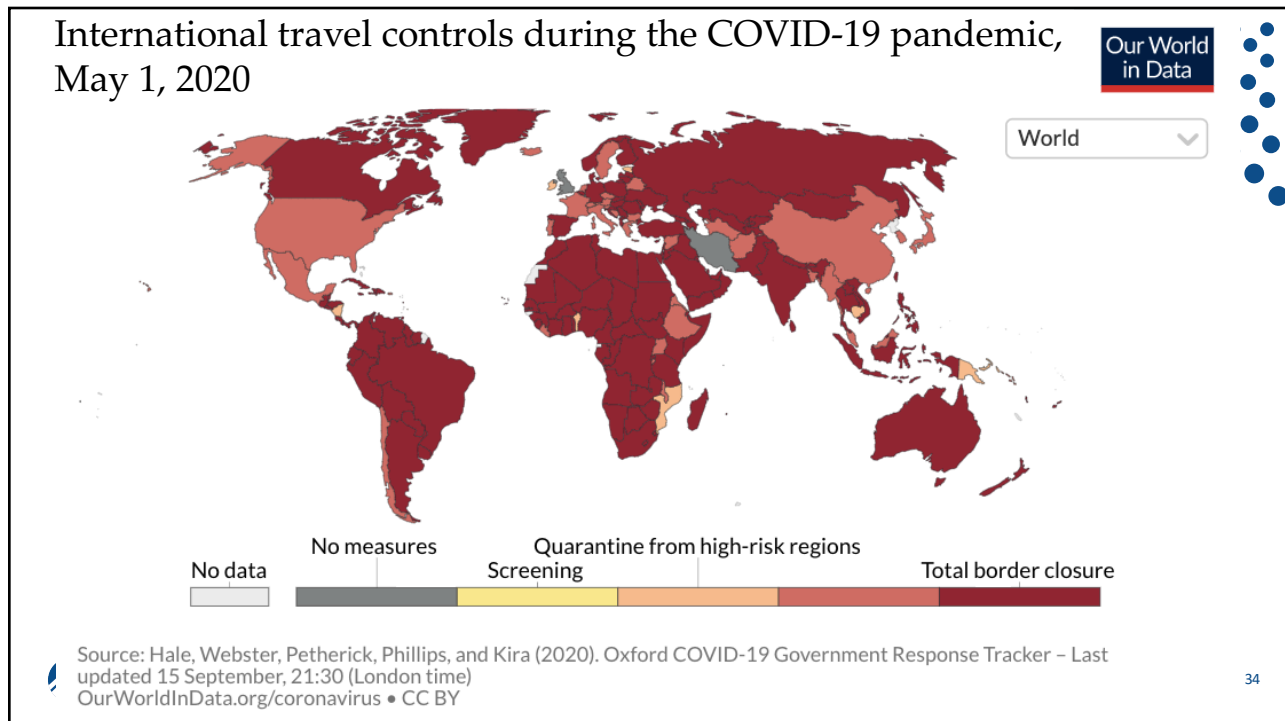
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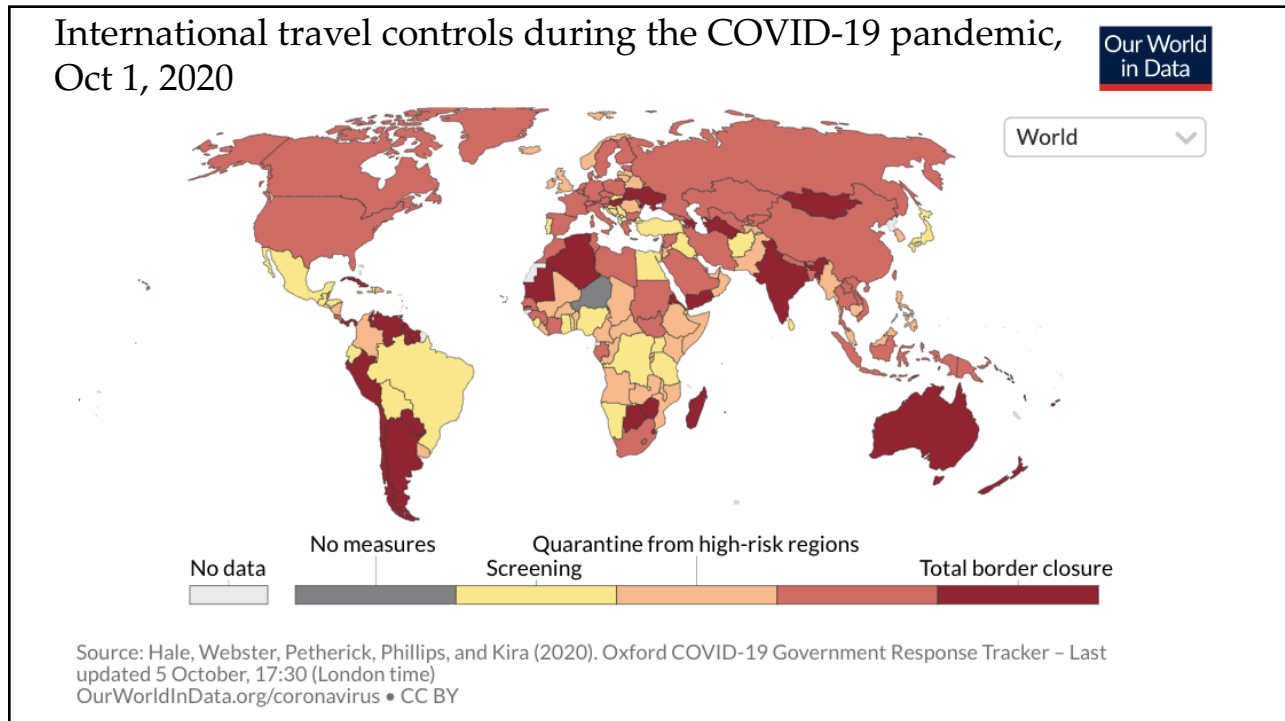
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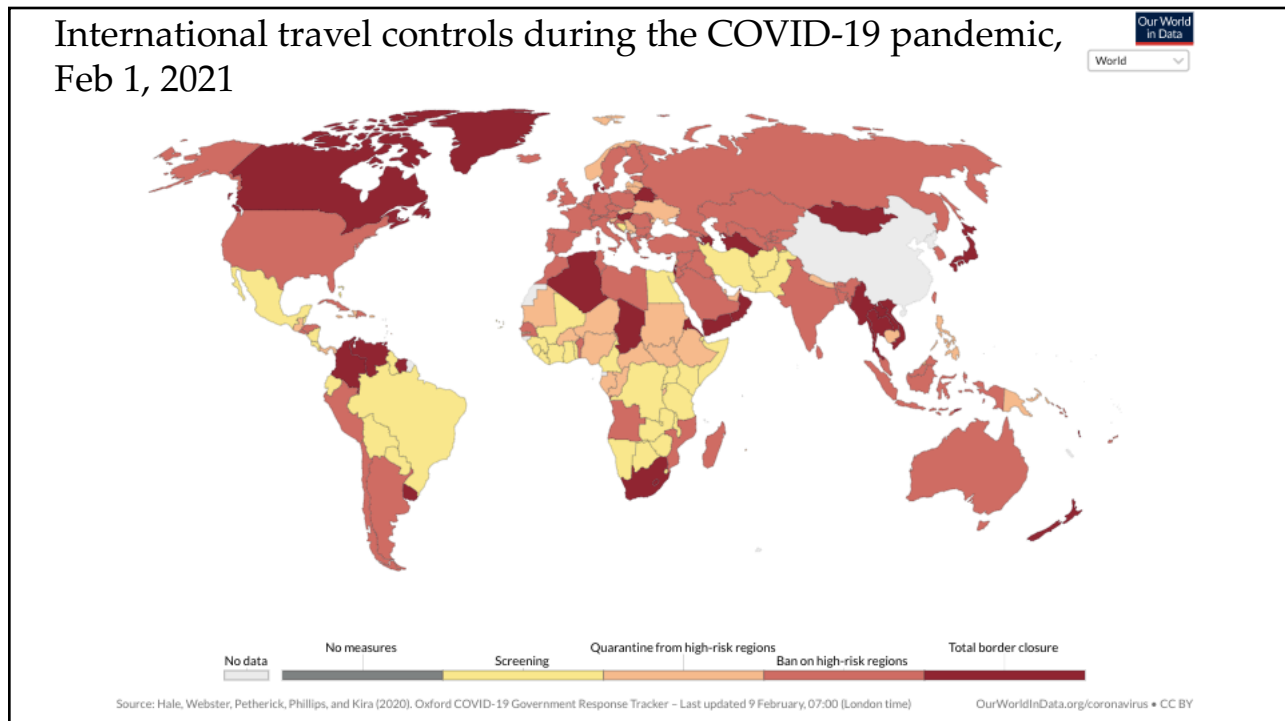
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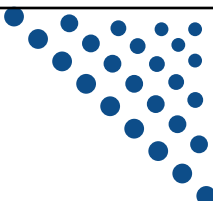
Effects on Economies

Shipping

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Effects on Economies

- **Shipping by Sea**
 - Drop in trade reduced demand at first
 - Then increased demand for restocking
 - Pandemic added restrictions
 - At ports
 - For crews
 - Shipping rates rose

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Shipping

- **Headlines on Shipping**

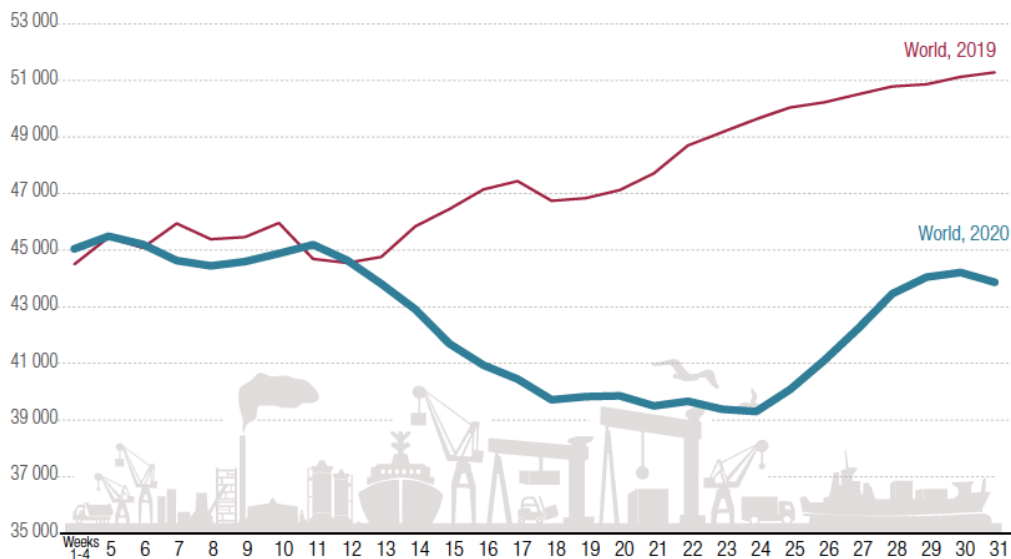
- Jan 4, 2021 WSJ: Covid-19 Shipping Problems Squeeze China's Exporters
- Dec 10 FT: Pandemic triggers 'perfect storm' for global shipping supply chains
- Nov 1 FT: An SOS for the stranded seafarers who ship global trade
- Oct 21 FT: China-US shipping costs soar on pandemic restocking
- Oct 10 Economist: How covid-19 put wind in shipping companies' sails
- Sep 14 NYT: Trapped by Pandemic, Ships' Crews Fight Exhaustion and Despair
- Sep 5 FT: Covid-19 restrictions threaten shipping lanes and crew
- Jun 7 FT: Shipping industry warns of trade logjam as crews remain stranded
- May 13 FT: Maersk warns of 25% drop in shipping as virus snarls trade
- Mar 6 WSJ: Coronavirus Snarls Trans-Pacific Shipping and Ripples Through U.S. Business
- Feb 28 NYT: Virus Disrupts China's Shipping, and World Ports Feel the Impact"



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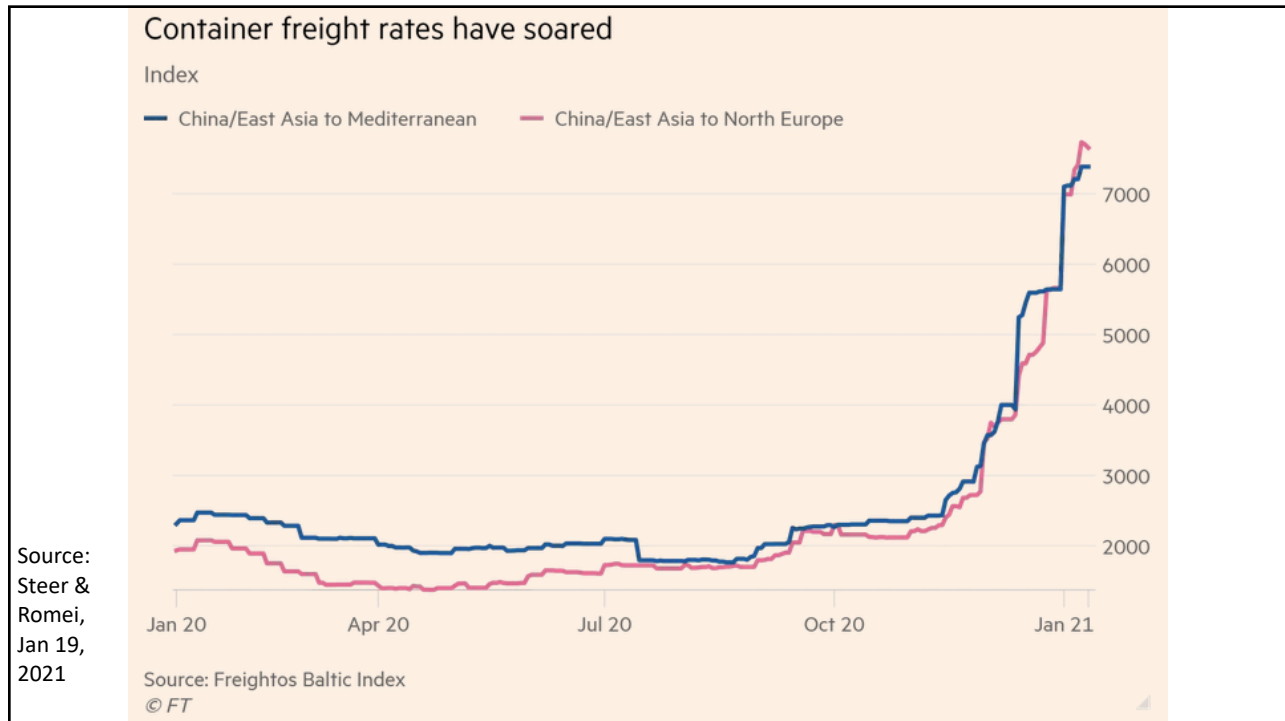
Figure 1.7
World total: Weekly ship port calls, all ships*



Source: UNCTAD

Source: UNCTAD calculations based on data provided by Marine Traffic.
* Four-week moving weekly average.

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Effects on Economies

- **Shipping by Air**
 - This too was hurt, as fewer passenger flights also carried less cargo

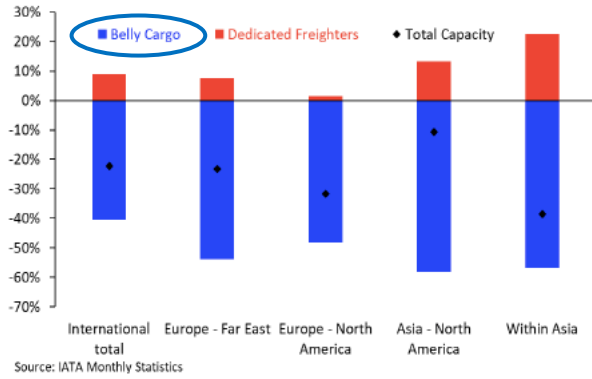
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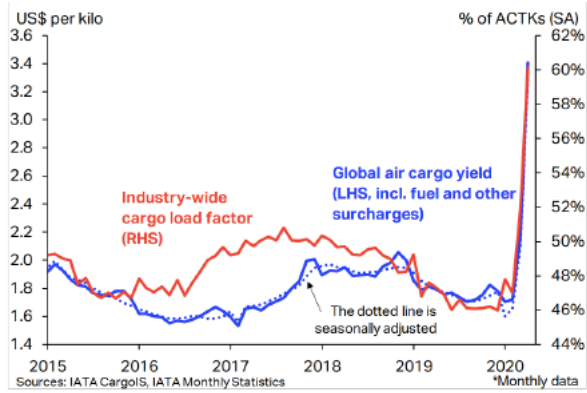
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Figure 6: Global air cargo capacity plummeted, causing a surge in air cargo yields

International air cargo capacity in the three months to April 2020 (% year-on-year)



Global air cargo yield (left) and load factor (right)



© International Air Transport Association, 2020. [Cargo Chartbook - Q2 2020](#). All Rights Reserved.

Source: WTO (2020)

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Effects on Economies

Supply Chains

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Effects on Economies

- **Supply Chains**

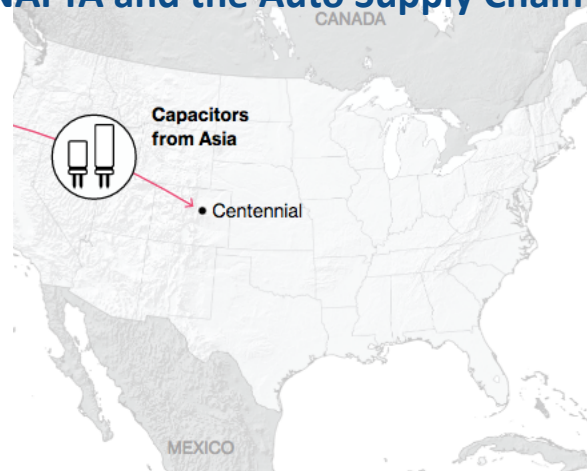
- Globalization has created long and complex international supply chains
- These are vulnerable to the shocks of the pandemic



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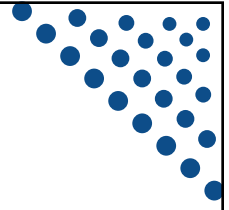
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NAFTA and the Auto Supply Chain

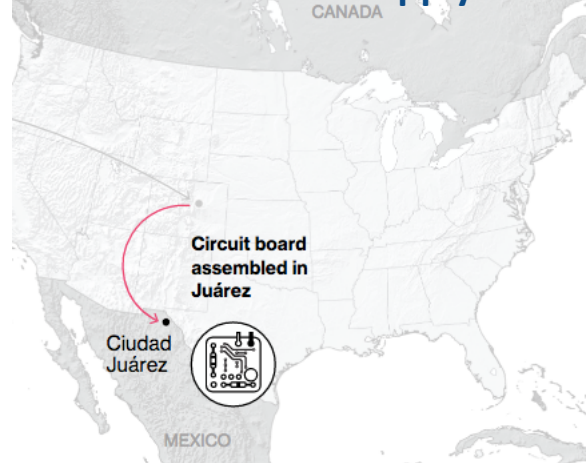


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NAFTA and the Auto Supply Chain



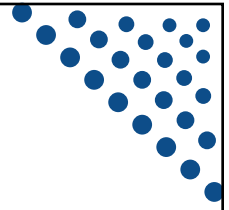
NATIO
EDUCA

Black, Diamond, and Merrill, "One Tiny Widget's Dizzying Journey Shows Just How Critical Nafta Has Become," *Bloomberg*, February 2, 2017.

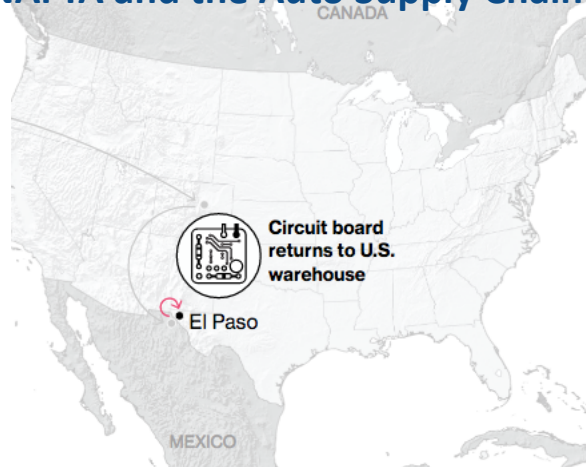
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NAFTA and the Auto Supply Chain



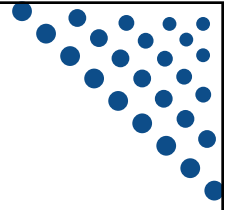
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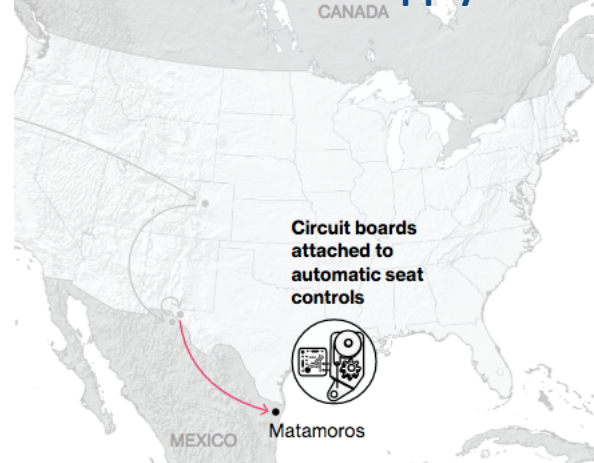
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NAFTA and the Auto Supply Chain



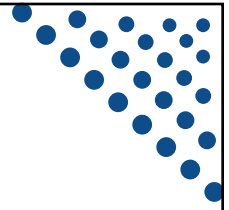
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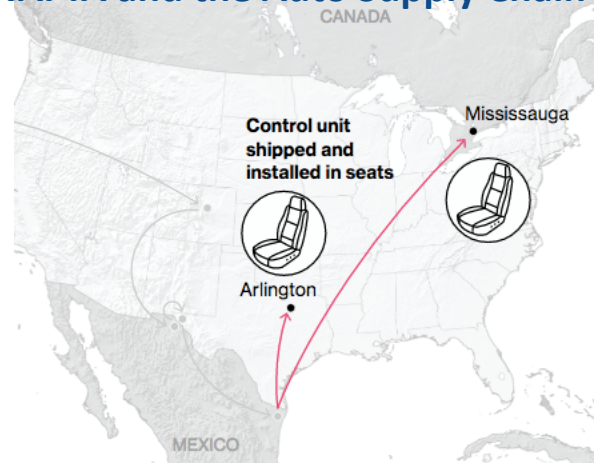
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NAFTA and the Auto Supply Chain



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Black, Diamond, and Merrill, "One Tiny Widget's Dizzying Journey Shows Just How Critical Nafta Has Become," *Bloomberg*, February 2, 2017.

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NAFTA and the Auto Supply Chain

CANADA

MEXICO

Seats installed at nearby auto assembly plants

Ford

GM

NATIO EDUCA Black, Diamond, and Merrill, "One Tiny Widget's Dizzying Journey Shows Just How Critical Nafta Has Become," *Bloomberg*, February 2, 2017.

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Supply Chains

- **Example: The iPhone assembled in China from parts:**

Part	Come from
Accelerometers	Germany, the US, South Korea, China, Japan, and Taiwan.
Audio chips	US, UK, China, South Korea, Taiwan, Japan, and Singapore.
Batteries	Samsung (South Korea), which has factories in eighty countries.
Cameras	Qualcomm (US) and Sony (Japan), both with plants in many countries
Chips for 3G/4G/LTE networking	Qualcomm (US)
Compasses	AKM Semiconductor (Japan) with plants in the US, France, England, China, South Korea, and Taiwan.
Glass screen	Corning (US) with plants in twenty-six countries.
Gyroscopes	Switzerland
... and many more	

Source: Krueger 2020

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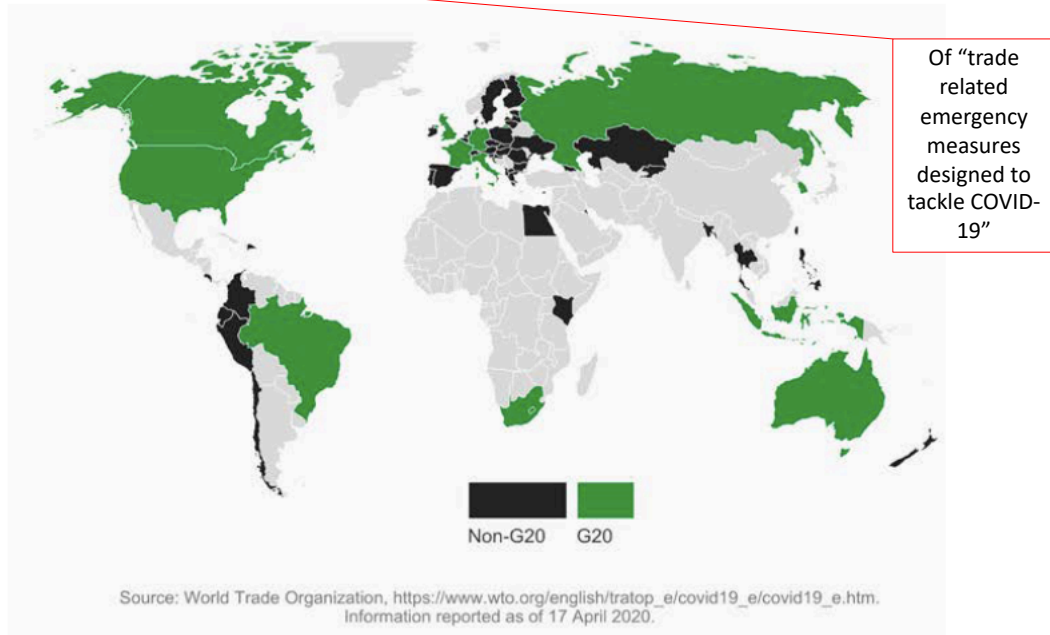
Supply Chains

• Headlines on supply chains:

- Is a wave of supply-chain reshoring around the corner? (*Economist* 12/19/20)
- Pandemic triggers 'perfect storm' for global shipping supply chains (*FT* 12/10/20)
- Covid forces rewrite of academic textbooks on supply chains and logistics (*FT* 10/8/20)
- Stranded crews pose a risk to supply chains (*FT* 9/28/20)
- Covid-19 has exposed the world's fragile, complex food supply chains (*FT* 9/24/20)
- Pandemic shows US must make vital products at home (Kevin McCarthy 8/23/20) [House Minority Leader]
- Covid-19 and other risks mean quarter of products could be sourced from new countries in 5 years (*FT* 8/8/20)
- Will coronavirus pandemic finally kill off global supply chains? (*FT* 5/28/20)
- Steep Drop in Trade Flows Shows Pitfalls of Cross-Border Supply Chains (*WSJ* 5/26/20)
- Covid-19 crisis has laid bare weaknesses in supply chains (*FT* 5/11/20)

Effects on Trade Policies

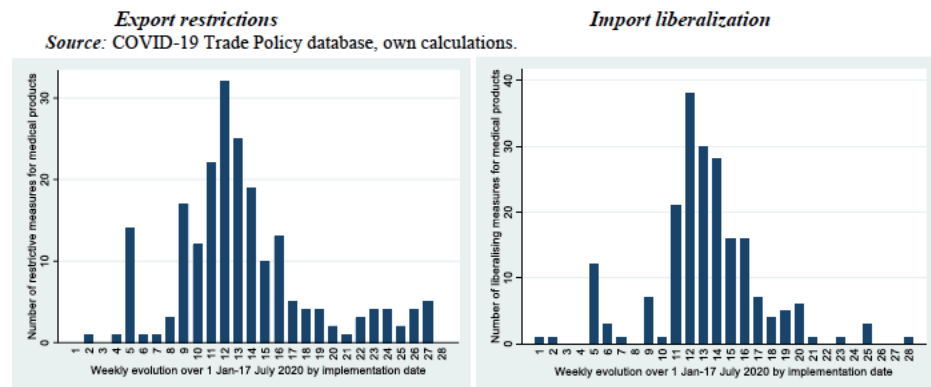
Figure 1 COVID-19 notifications to the WTO as of 17 April 2020



Source: Wolfe 2020

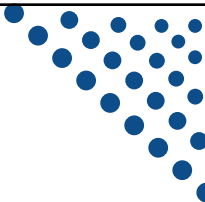
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Figure 1: Trade measures for medical products (weekly, January-July 2020)




Source: Hoekman et al. (2020)


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Effects on Trade Policies

- **Effects of the Pandemic on Trade Policies**
 - Export Policies
 - Import Policies

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Effects on Trade Policies

Export Policies

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Effects on Export Policies

• Export Policies

- There were export bans by many countries on
 - Medical supplies
 - Food
 - Other
- Some were temporary, but many others were not
- Only a few countries had policies to encourage exports



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Effects on Export Policies

• Headlines on Export bans

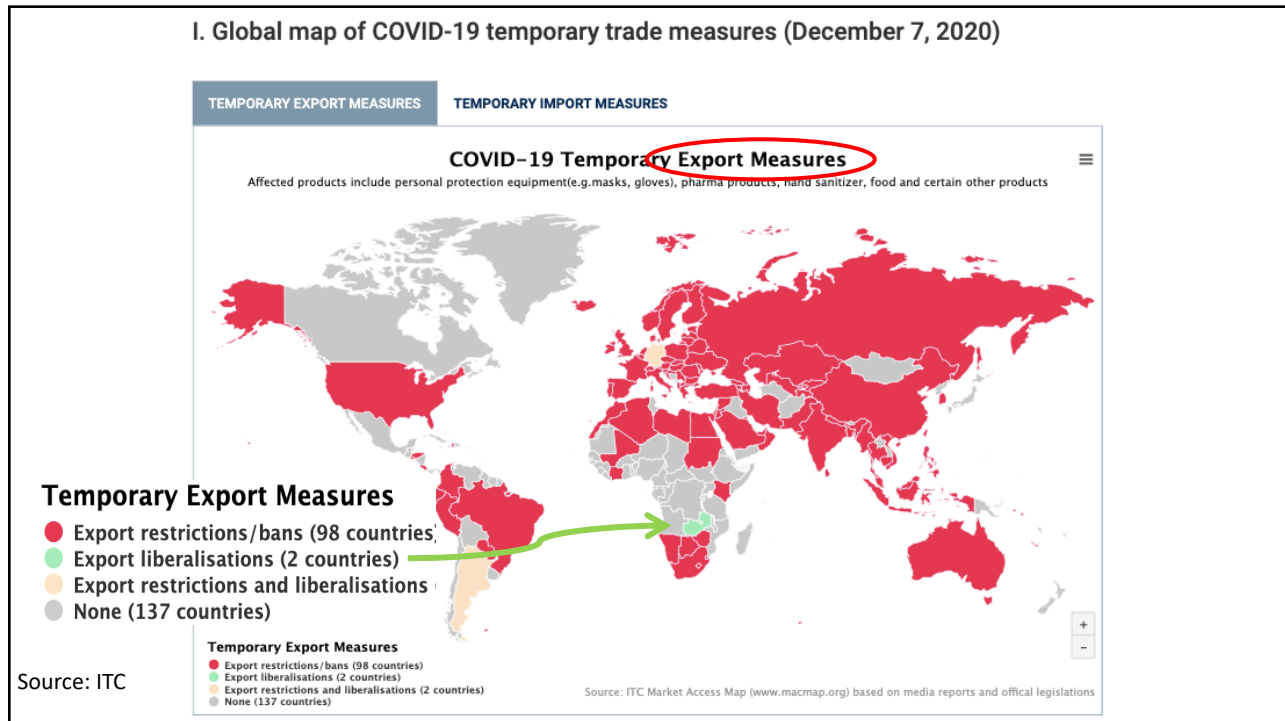
- Jun 24, NYT: Warren and Booker **Press Meatpackers on Exports** to China
- May 28, WSJ: '**Vaccine Nationalism**': A New Dynamic in the Race to Quash Coronavirus
- Apr 11, WSJ: China **Tightens Customs Checks** for Medical Equipment Exports
- Apr 8, WSJ: U.S. to **Restrict Mask, Glove Exports** for Four Months During Coronavirus Pandemic
- Apr 8, WP: As **borders harden** during pandemic, some countries look to hold on to their own food
- Apr 3, Reuters: Trade **Restrictions on Food Exports** Due to the Coronavirus Pandemic
- Mar 19, VOX^{EU}: Sickening thy neighbour: **Export restraints** on medical supplies during a pandemic



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Effects on Trade Policies

Import Policies

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Effects on Import Policies

• Effects of the Pandemic on Import Policies

- Import expansion
 - Tariff reductions
- Import contraction
 - Tariff increases
 - Import bans
 - Government procurement



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Effects on Import Policies

• Headlines on Import Expansion

- Apr 20 FT: **Trump exempts** virus-hit US businesses from import tariffs
- Apr 13 WSJ: U.S. **Tariffs Hamper Imports** of Sanitizer, Disinfectants, Some Companies Say
- Apr 2 NYT: Trump Rebuffs Demands to **Lift Tariffs** as Economy Falters
- Mar 31 FT: Trump to **suspend some tariffs** for 90 days
- Mar 26 WSJ: U.S. Will Approve Some **Delays in Tariff Payments** Amid Coronavirus Crisis
- Mar 24 FT: **Drop the tariffs** and save some lives. Quick
- Mar 19 WSJ: Trump Spurns Business **Plea to Ease Tariffs** Amid Coronavirus
- Mar 16 NYT: U.S. Weighs **Tariff Relief** but Some Fear China Will Take Advantage



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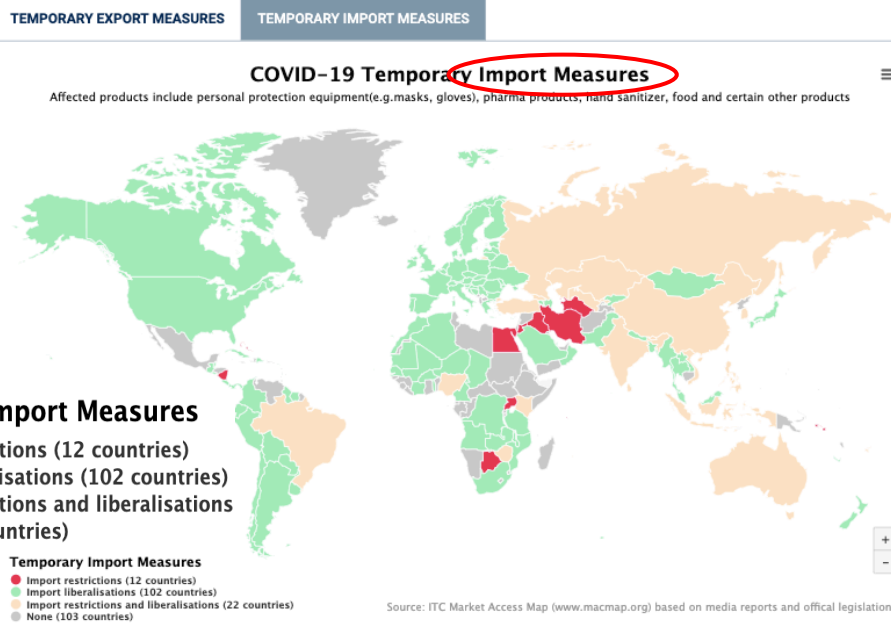
Effects on Import Policies

• Headlines on Import Contraction


- Aug 23 FT: McCarthy: Pandemic shows US must **make vital products at home**
- Aug 17 FT: Guangzhou **bans frozen meat imports** over virus fears
- Aug 6 FT: Donald Trump to order government to **buy medicines from US** companies
- May 30 WSI: **Protectionism Spreads Globally** With the New Coronavirus
- May 10 FT: U.S. Multinationals fear **rise in protectionism** because of pandemic

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I. Global map of COVID-19 temporary trade measures (December 7, 2020)




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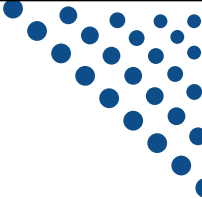
Trade during the Pandemic

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Role of Trade During Pandemic

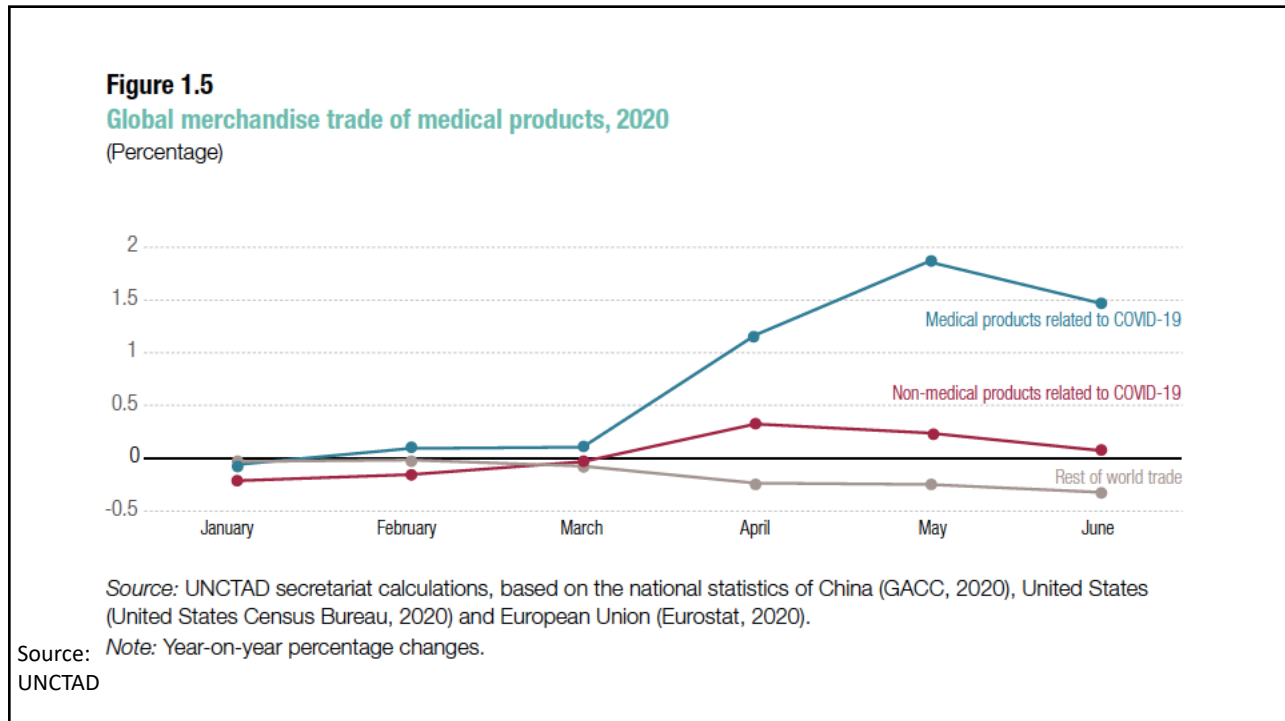
- **Trade in COVID-19 Critical Goods**
 - Trade increased, especially in PPE but also medical
 - Largest importer was US, both before and during
 - Largest exporter, after a lag, was China
 - Facemasks
 - Textile facemasks grew most
 - As did China's imports of the textiles
 - In spite of high import tariffs

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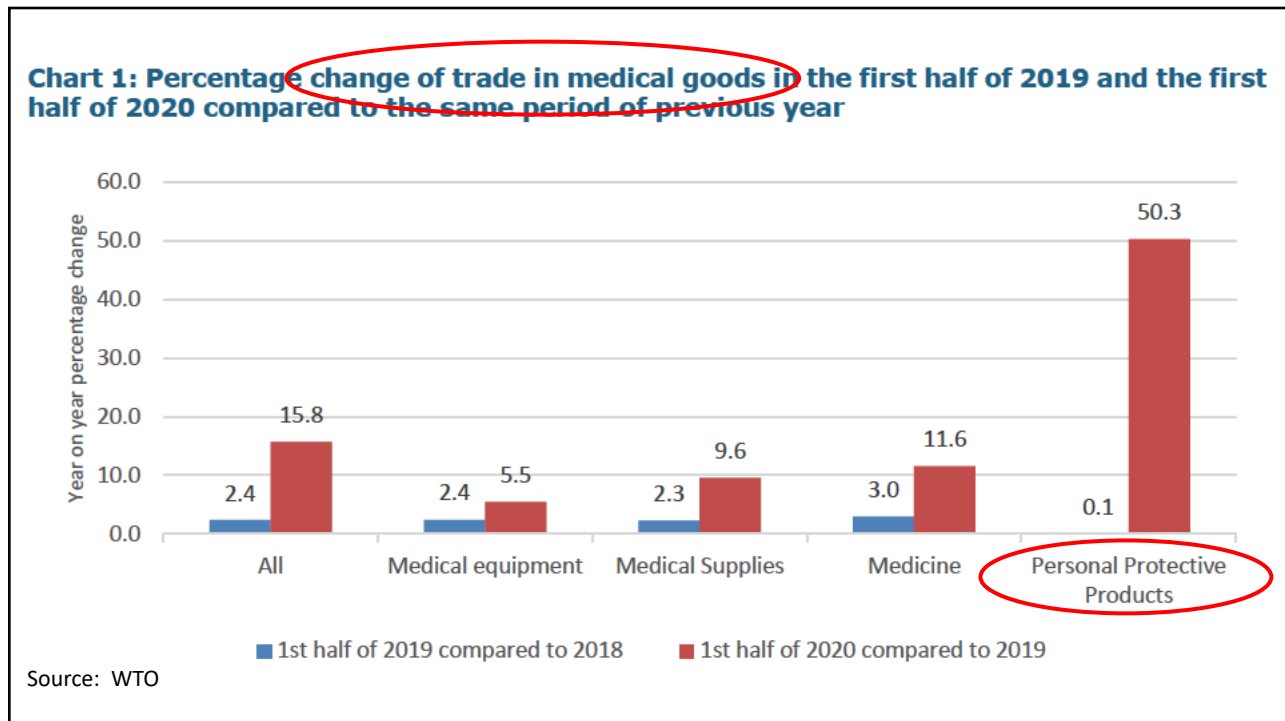
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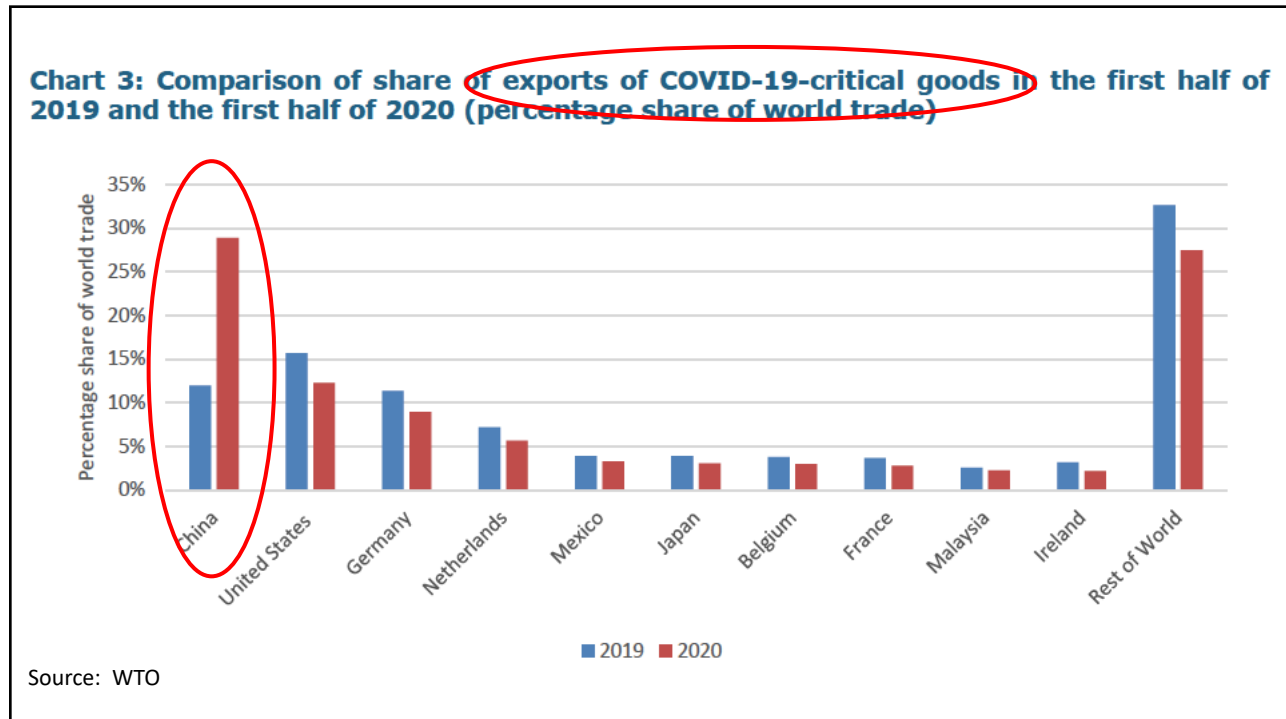
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Role of Trade During Pandemic

- **Vaccines**
 - Industry relies heavily on trade
 - Concerns
 - Distribution to the poorest countries
 - Reluctance to be vaccinated
 - Vaccine nationalism

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Role of Trade During Pandemic

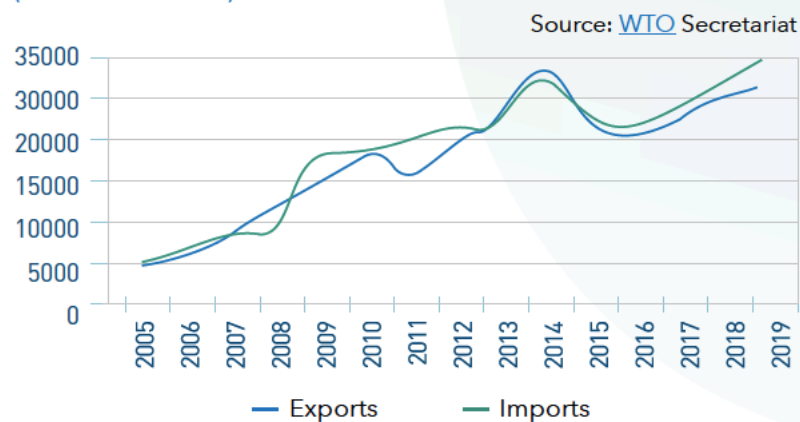
• Vaccine Development and Distribution

1. Vaccine development
2. Domestic approval - manufacture
3. Vaccine manufacture
4. Domestic approval – importer
5. International distribution
6. Border clearance
7. Domestic distribution and surveillance

73

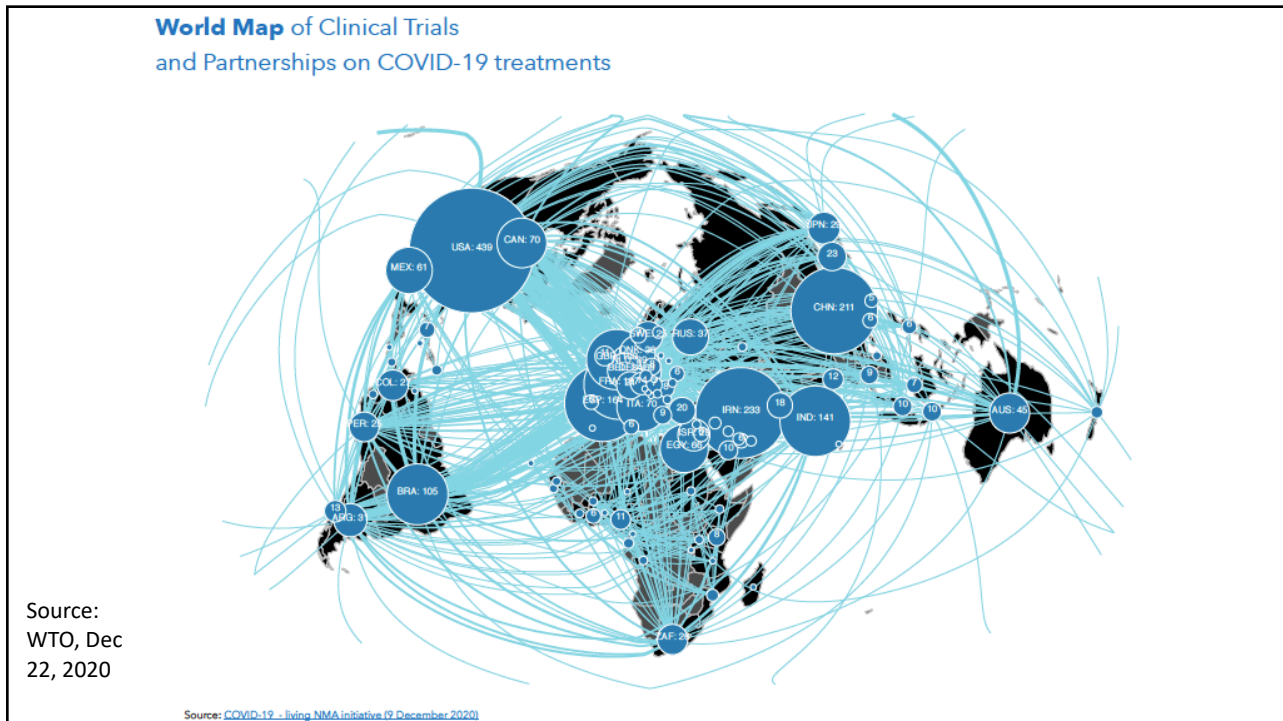
World trade of vaccines for human medicine (HS 300220), 2005-19

(Million dollars)

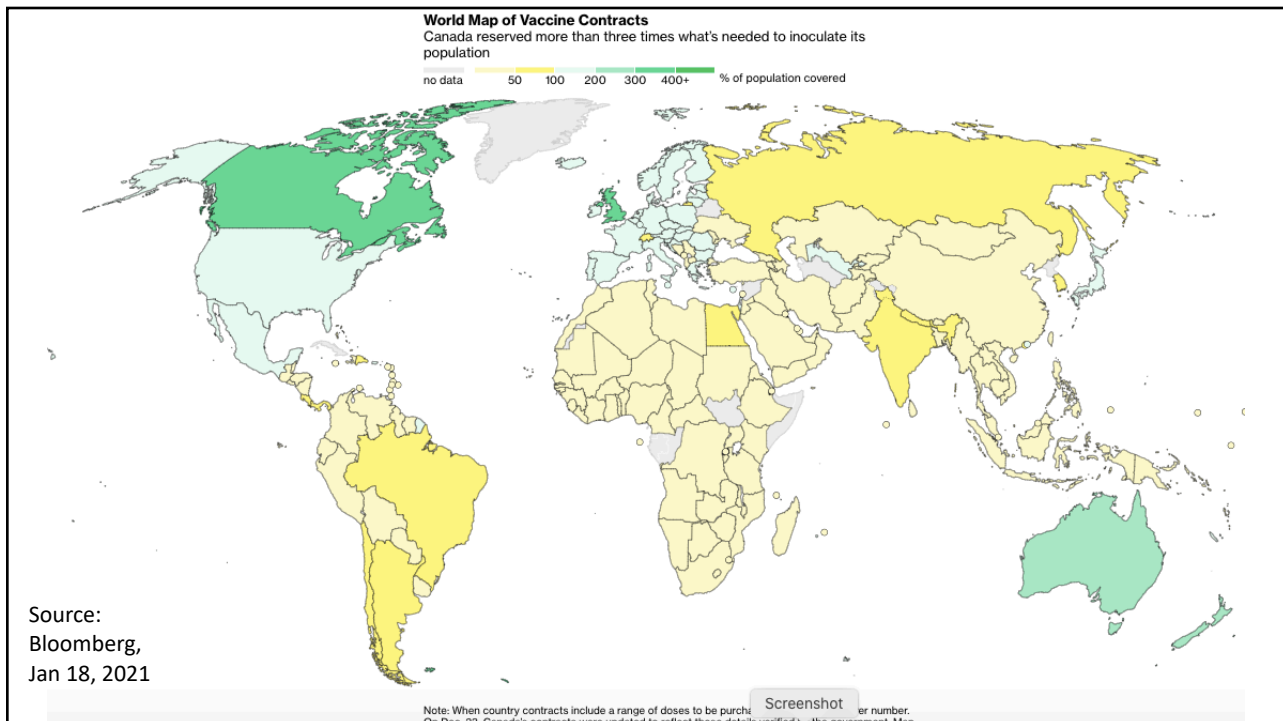


Source: WTO, Dec 22, 2020

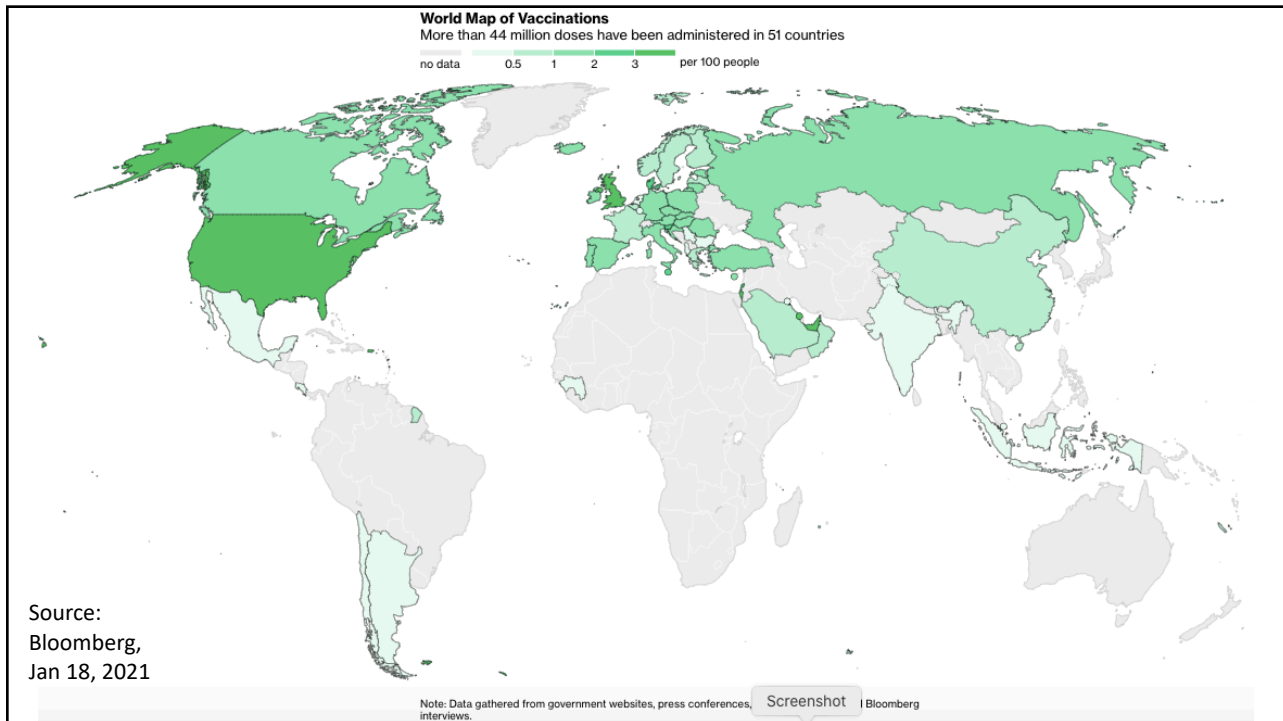
74



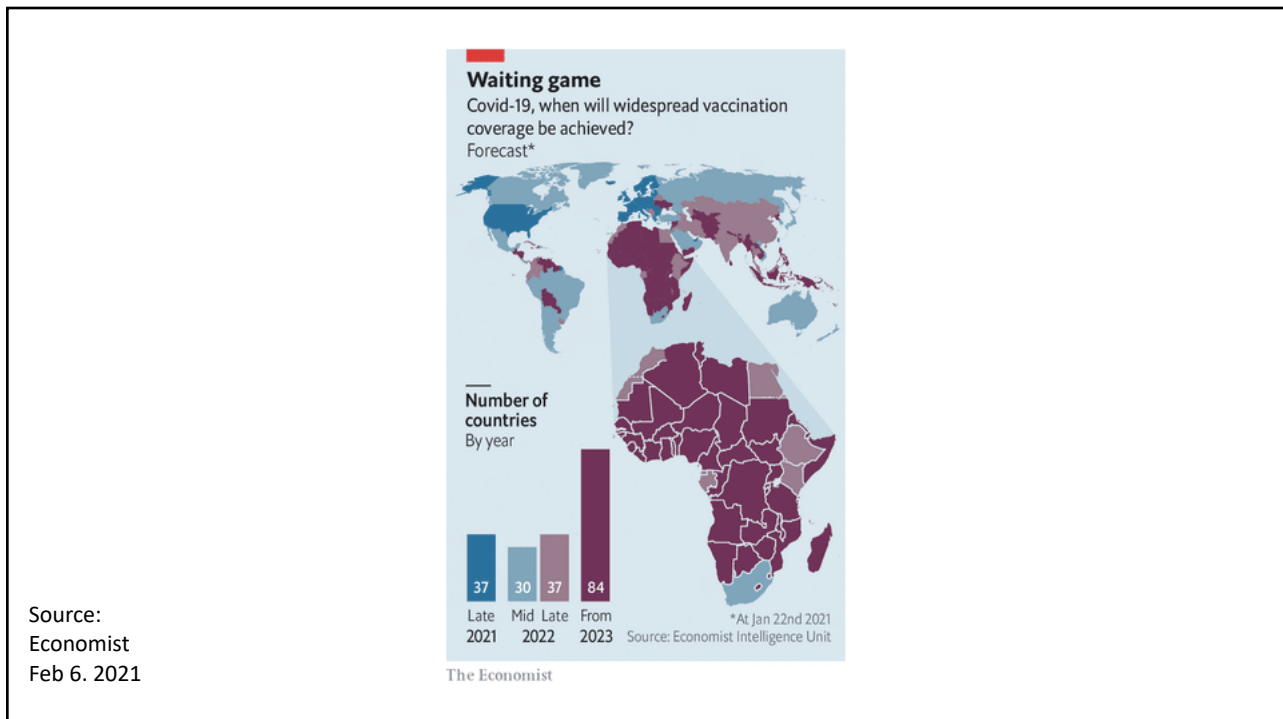
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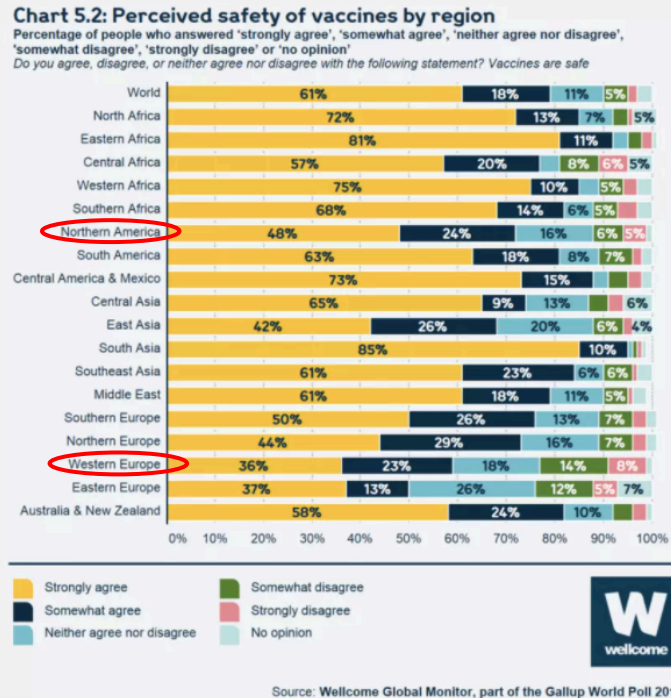


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Agreement that “vaccines are safe”



Source: Kuman (2020)

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Vaccine Nationalism

• Headlines on Vaccine Nationalism

- 1/25/21: Study shows vaccine nationalism could cost rich countries US\$4.5 trillion (ICC)
- 2/2/21: Vaccine Nationalism Harms Everyone and Protects No One (Foreign Policy)
- 2/2/21: 'Vaccine nationalism' echoes the disastrous mistakes made with HIV (The Guardian)
- 2/3/21: Vaccine nationalism will leave everyone more at risk of coronavirus (New Scientist)
- 1/31/21: How vaccine nationalism could extend the pandemic (Fortune)

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Conclusion

- **The Covid-19 Pandemic has had**
 - Devastating effects on the global economy
 - Serious effects on global trade
 - Mostly adverse effects on international trade policies
- **How much of this will be permanent remains to be seen**

Thank you!

Thank you!
Any Questions?

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