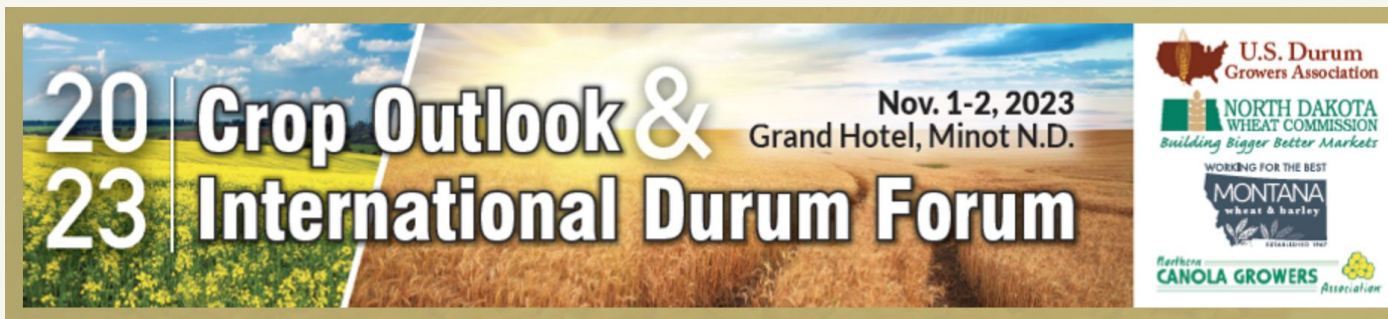




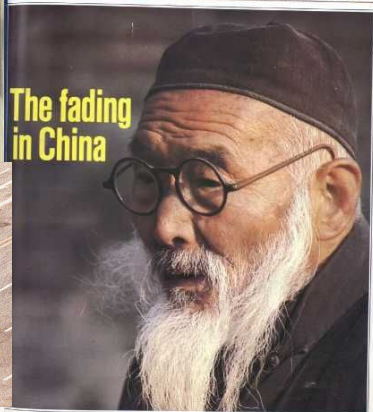
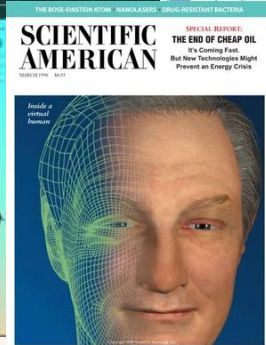
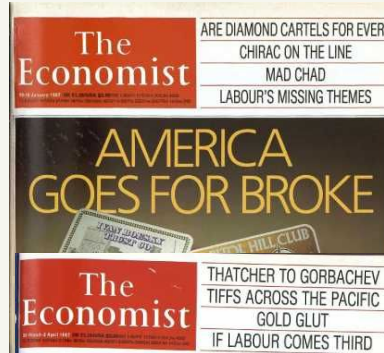
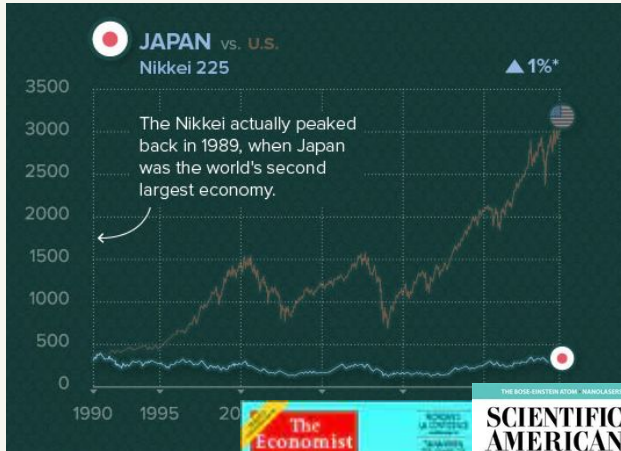
Geopolitics and the Upper Great Plains



Jacob Shapiro
1-2 November 2023
Minot, North Dakota, U.S.A.



Don't trust conventional opinions.





Never trust conventional opinions.

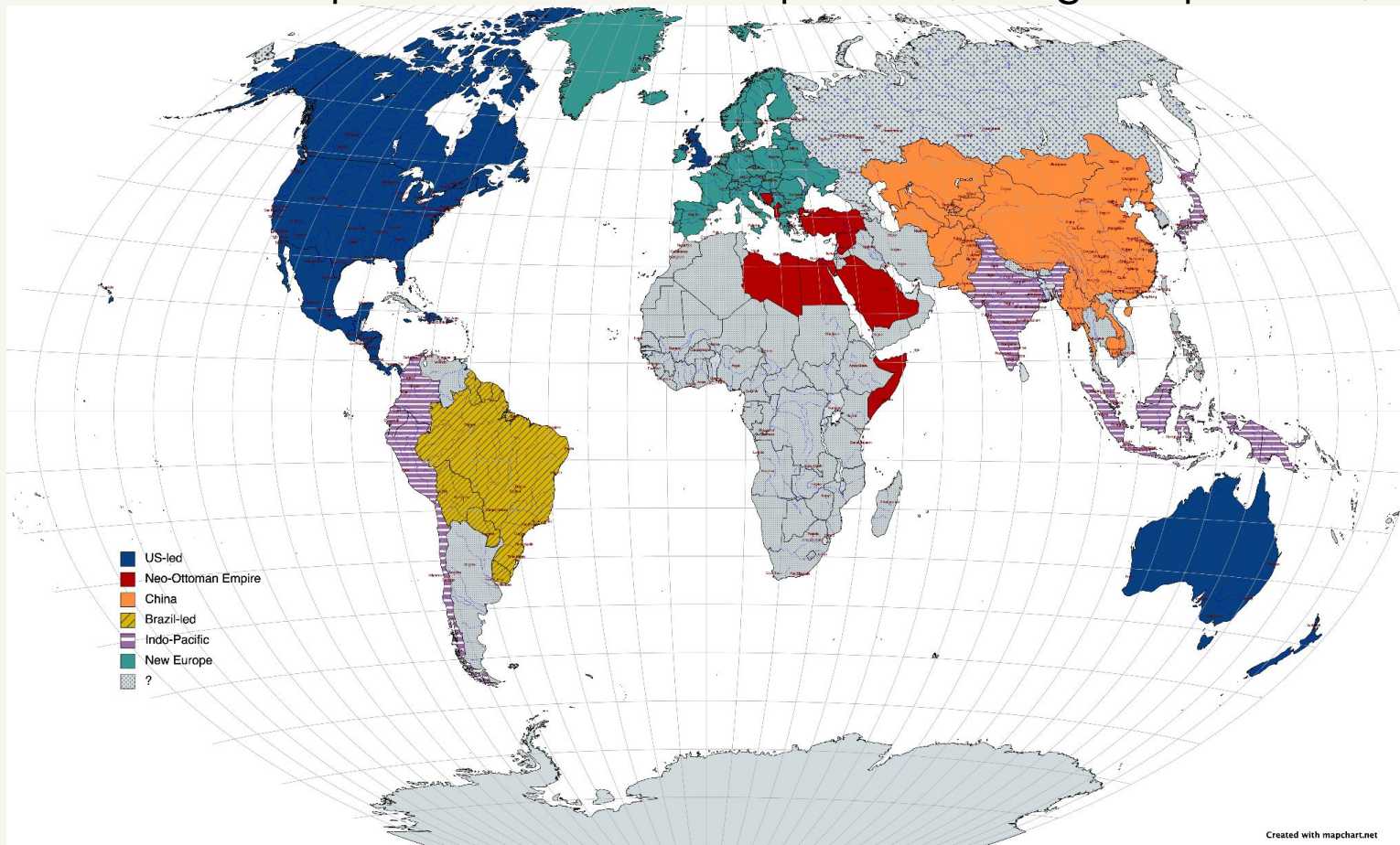


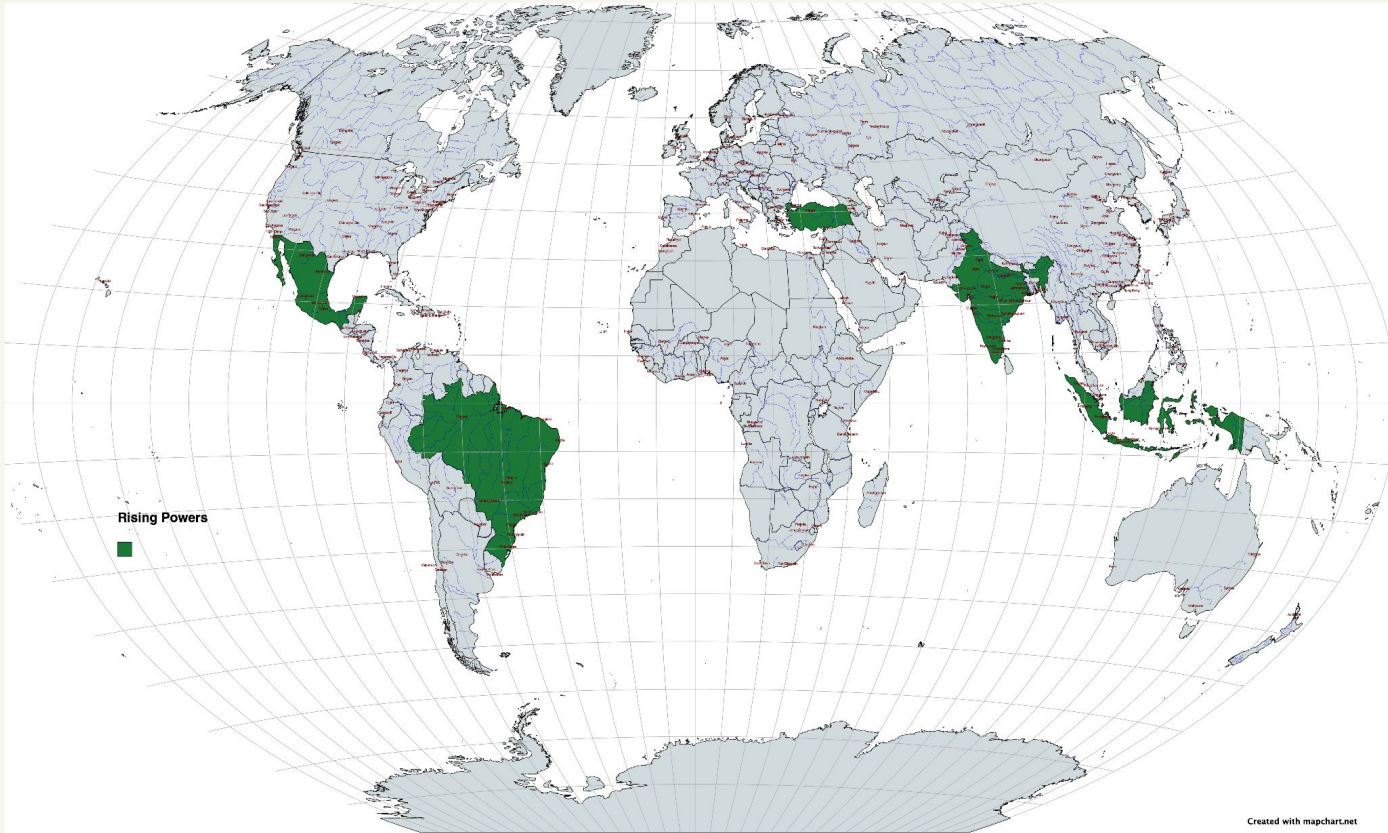


THE WORLD MAKES SENSE (I PROMISE)



Global Spheres of Influence, Sept 2023 (Thought Experiment)



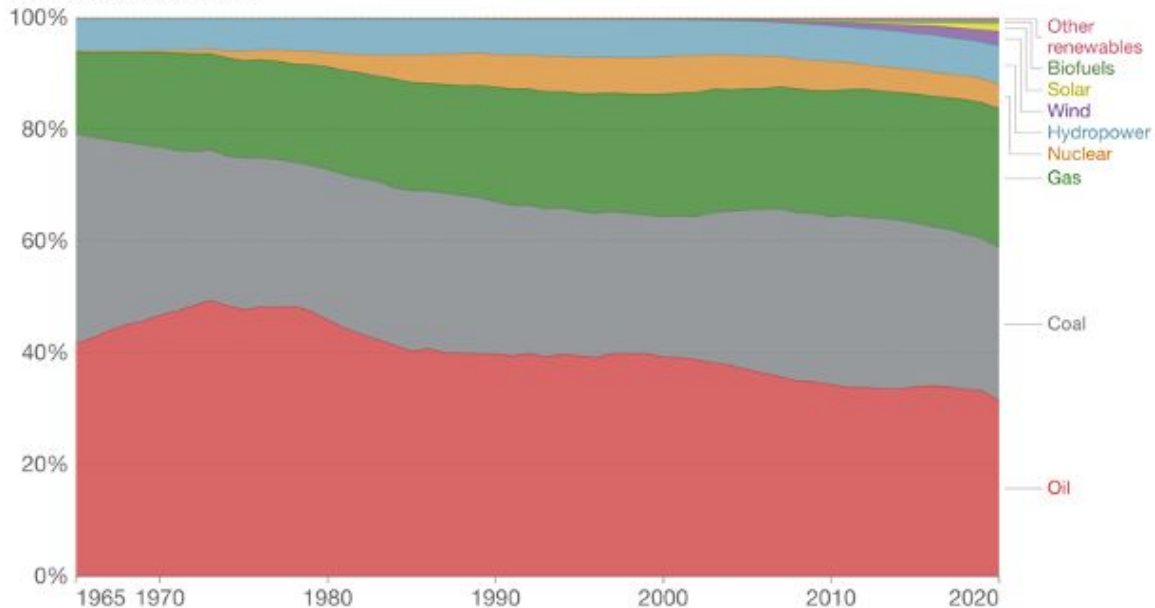




Energy consumption by source, World

Primary energy consumption is measured in terawatt-hours (TWh). Here an inefficiency factor (the 'substitution' method) has been applied for fossil fuels, meaning the shares by each energy source give a better approximation of final energy consumption.

Our World
in Data



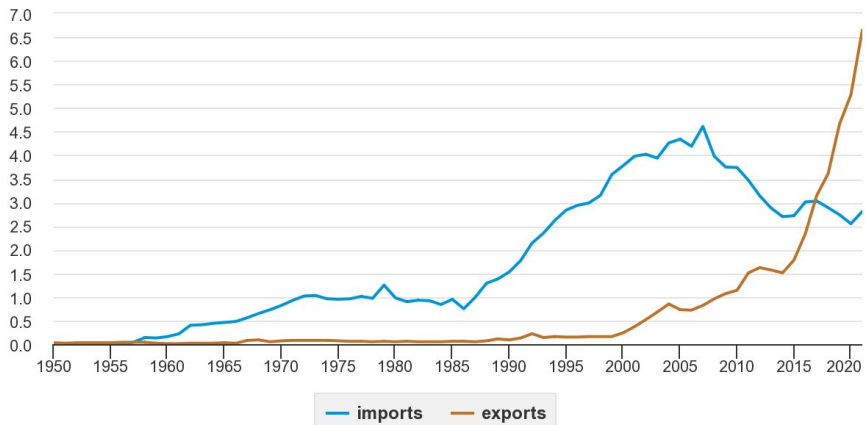
Source: BP Statistical Review of World Energy
Note: 'Other renewables' includes geothermal, biomass and waste energy.

OurWorldInData.org/energy • CC BY



U.S. natural gas imports and exports, 1950-2021

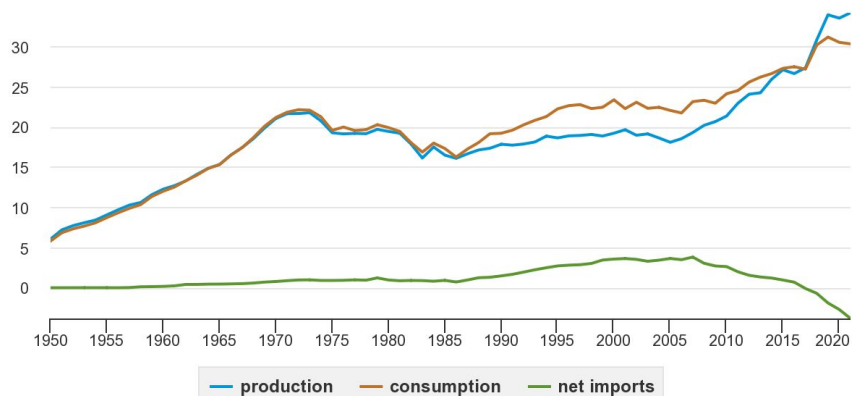
trillion cubic feet



eia Data source: U.S. Energy Information Administration, *Natural Gas Monthly*, March 2022, preliminary data for 2021

U.S. natural gas consumption, dry production, and net imports, 1950-2021

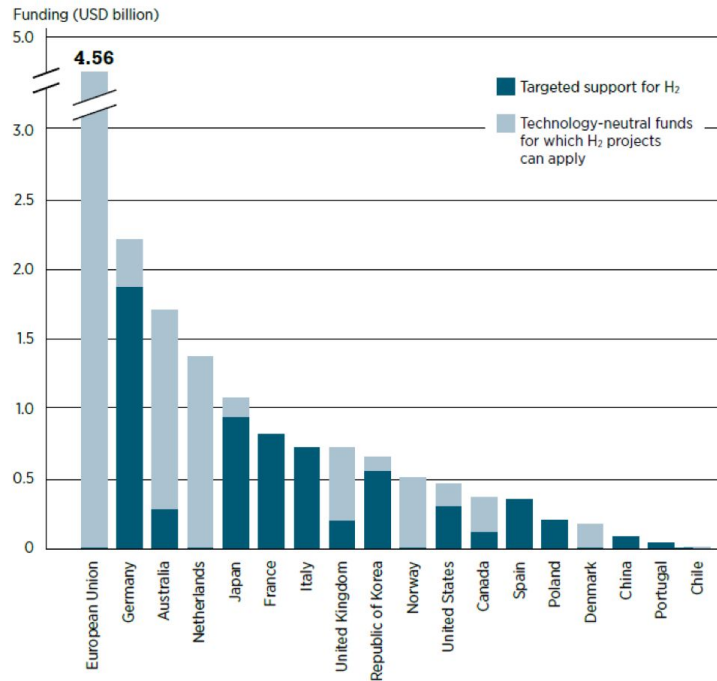
trillion cubic feet



eia Data source: U.S. Energy Information Administration, *Natural Gas Monthly*, March 2022, preliminary data for 2021



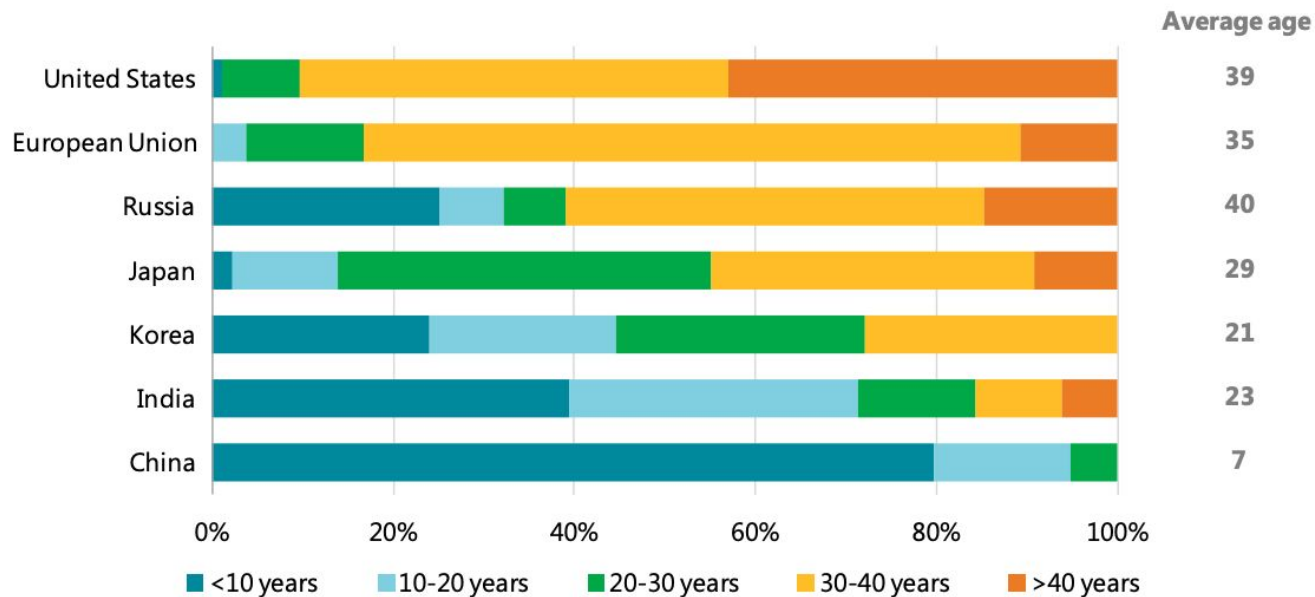
Average annual funding potentially available for hydrogen projects, 2021-2030



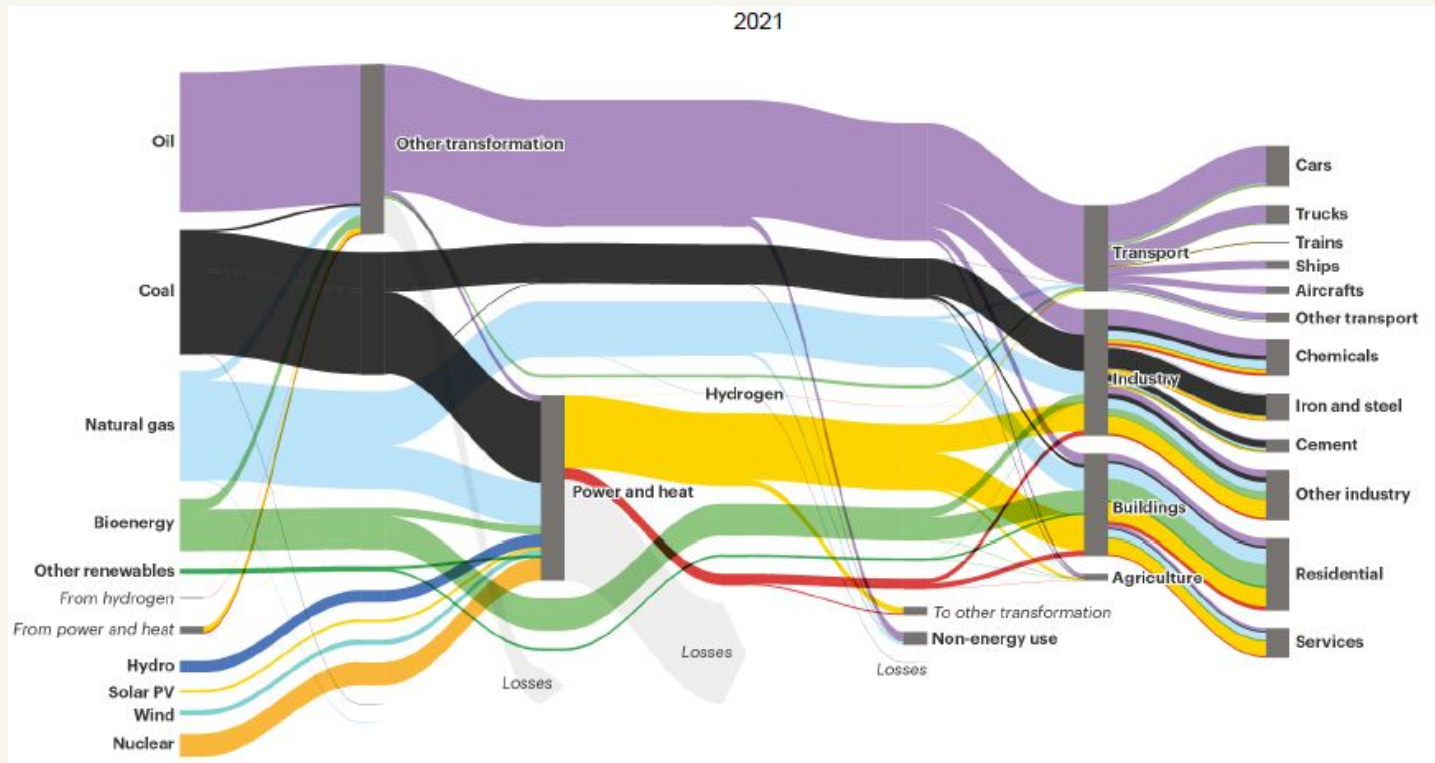
As of August 2021

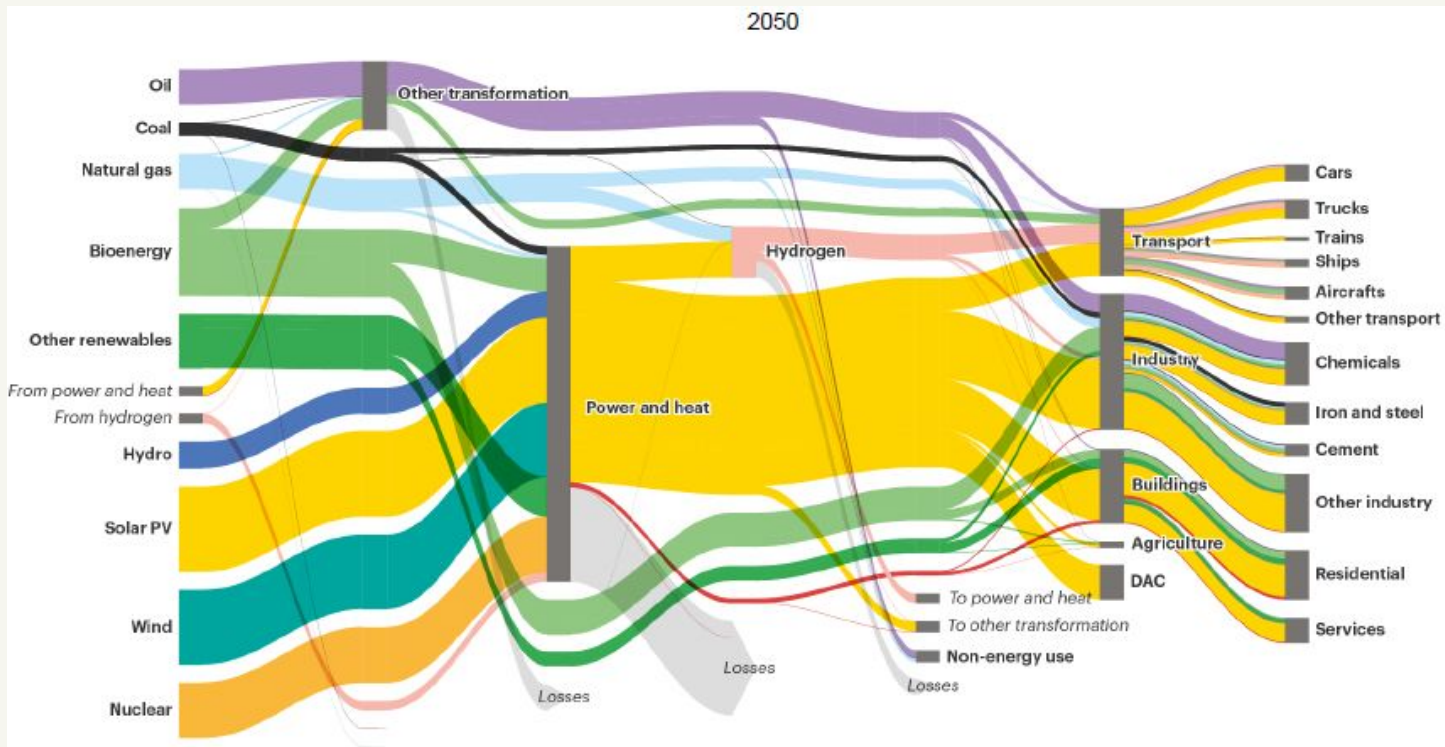


Figure 6. Age profile of nuclear power capacity in selected countries/regions



Source: IAEA (2019), Power Reactor Information System (PRIS) (database).



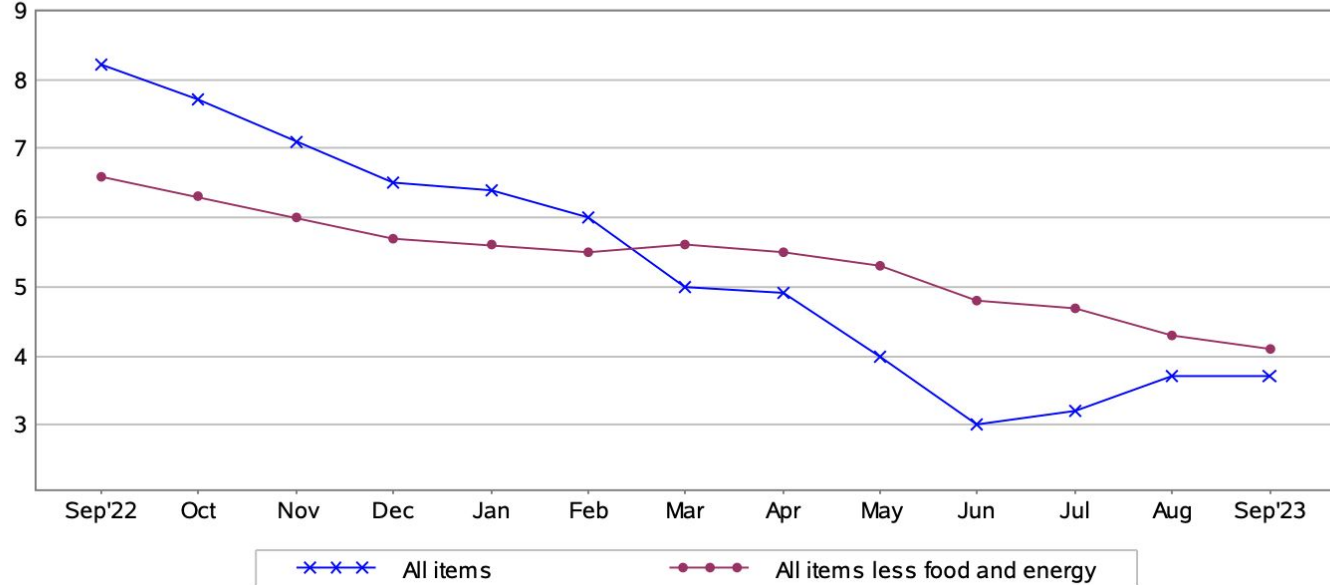




U.S. CPI

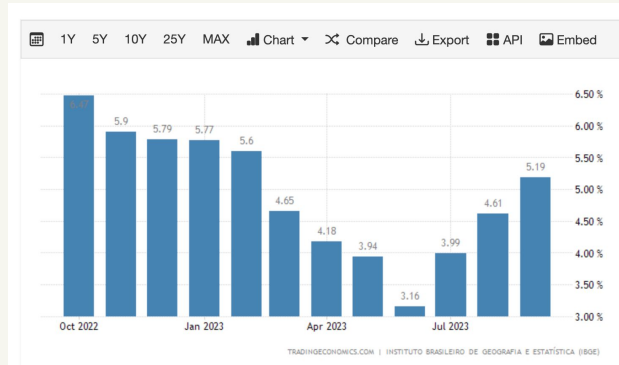
Chart 2. 12-month percent change in CPI for All Urban Consumers (CPI-U), not seasonally adjusted, Sep. 2022 - Sep. 2023

Percent change

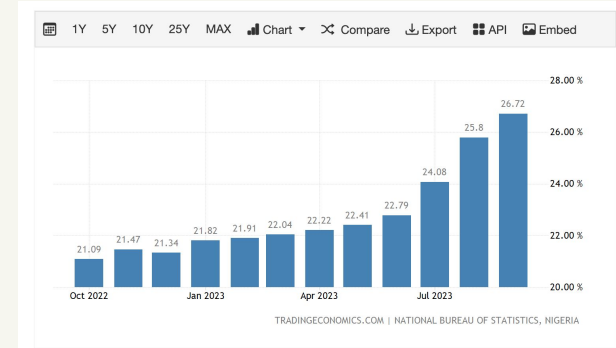




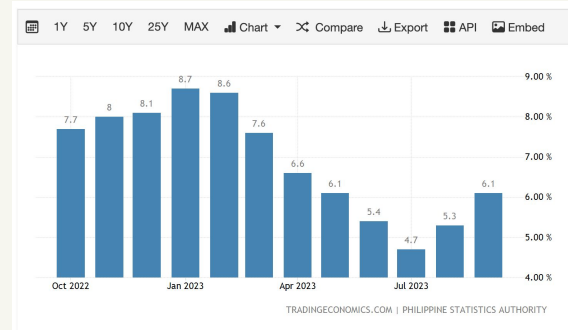
Brazil inflation



Nigeria inflation

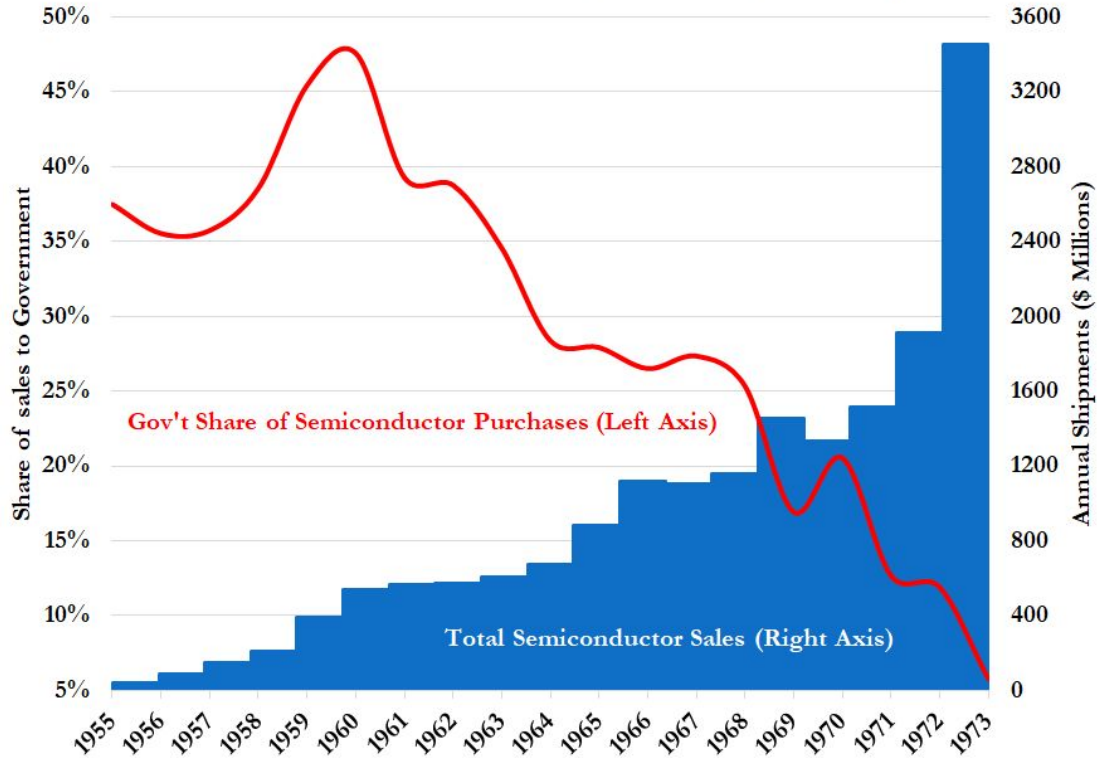


Philippines inflation





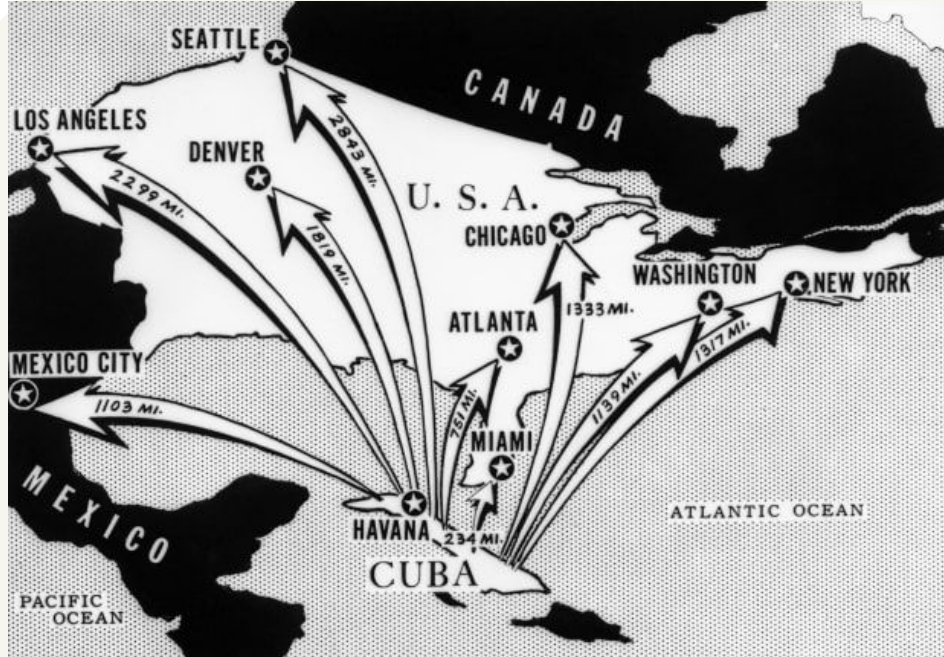
Total Semiconductor Sales by US Firms (1955-1973)



Source:
<https://employamerica.medium.com/a-brief-history-of-semiconductors-how-the-us-cut-costs-and-lost-the-leading-edge-c21b96707cd2>



= Cold War





Beyond Borders: Semiconductors are a Uniquely Global Industry

Typical semiconductor production process spans multiple countries: 4+ Countries, 4+ States, 3+ trips around the world, 25,000 miles travelled, 100 days TPT, 12 days in transit



\$1,340 Billion in Global Trade

Top Participants in Global Trade: Semiconductor Goods

China	USA	Mexico
Hong Kong	Malaysia	Thailand
Singapore	Japan	France
Taiwan	Germany	Viet Nam
Korea	Philippines	Netherlands

\$36.8 Billion in Global Trade

Top Participants in Global Trade: Fabrication Material Goods

China	Taiwan	Norway
USA	UAE	Mexico
Japan	Singapore	Netherlands
Germany	UK	France
Korea	Italy	Brazil

\$23.7 Billion in Global Trade

Top Participants in Global Trade: Assembly, Test, Packaging Goods

China	France	Mexico
Germany	Korea	Netherlands
USA	Hong Kong	Poland
Japan	Italy	Canada
Taiwan	UK	Belgium

Source: UN Comtrade and Taiwan Customs Administration, Ministry of Finance; Year of 2014

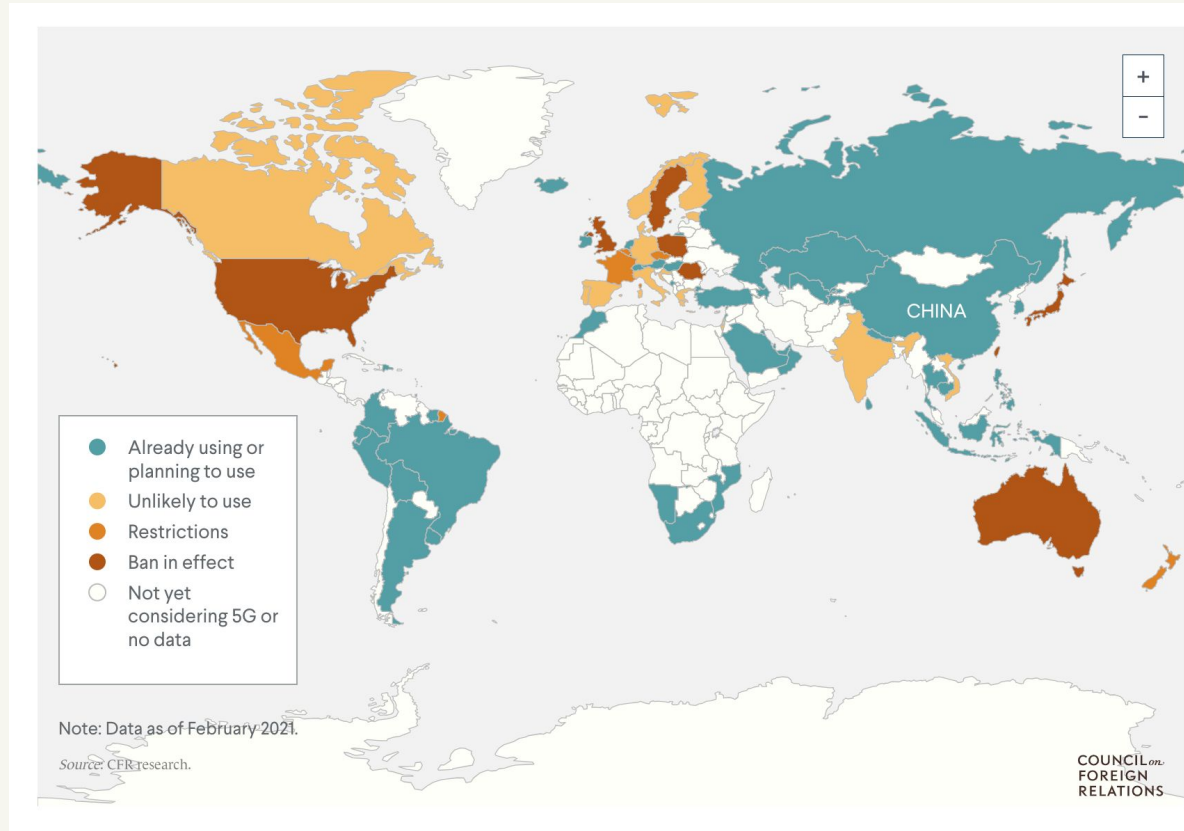
Semiconductor goods defined by HS Codes: 8541 (Diodes, Transistors, and Similar Semiconductors); 8542 (Electronic Integrated Circuits)

Fabrication materials goods defined by HS Codes: 280429 (Rare gases other than Argon); 280430 (Nitrogen); 280461 (Silicon (>99.99% pure)); 280469 (Silicon (<99.99% pure)); 28047 (Phosphorus); 851680 (Resist); 903141 (Photomasks)

Assembly, test, packaging goods defined by HS Codes: 3506 (Glues and Adhesives); 854710 (Ceramic Packaging)



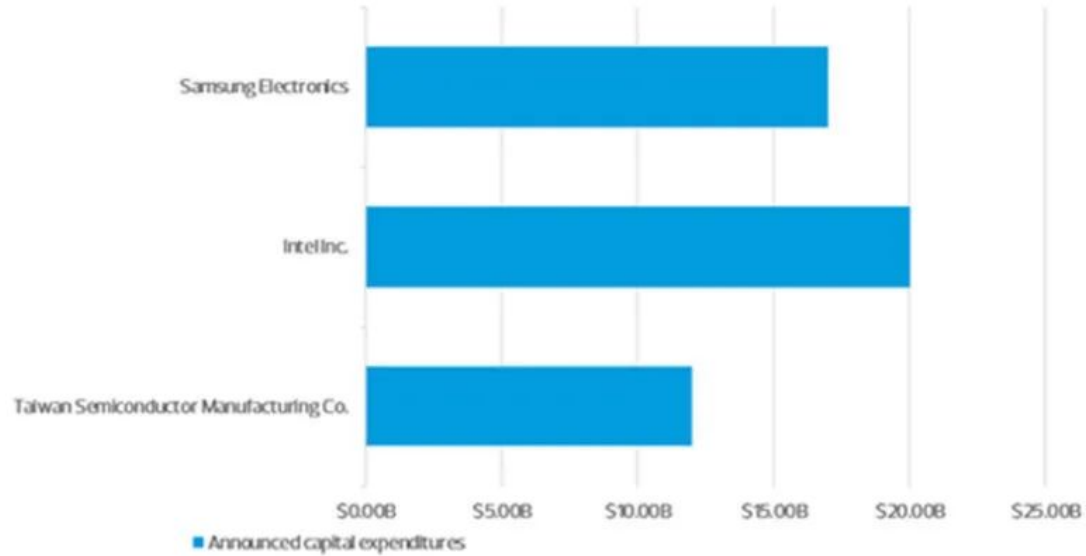
Which countries will use Huawei?





Planned U.S. foundry investment (announced)







Expected to occur 2021-2024



Source: Bloomberg, LP; RSM US LLP



HUNGER MAP of EUROPE

-  Famine Conditions
-  Food Shortage approaching Famine Point
-  Serious Food Shortage
-  Sufficient Present Food Supply But Future Serious
-  Peoples already receiving American aid
-  Unclassified

DECEMBER 1, 1918



Source: United States Department of Agriculture and the Bureau of Education, published in 1918. Via the Human Ecology Collection, University of Wisconsin Digital Collections.



ORIENTATION MAP

TECHNICAL COOPERATION ADMINISTRATION



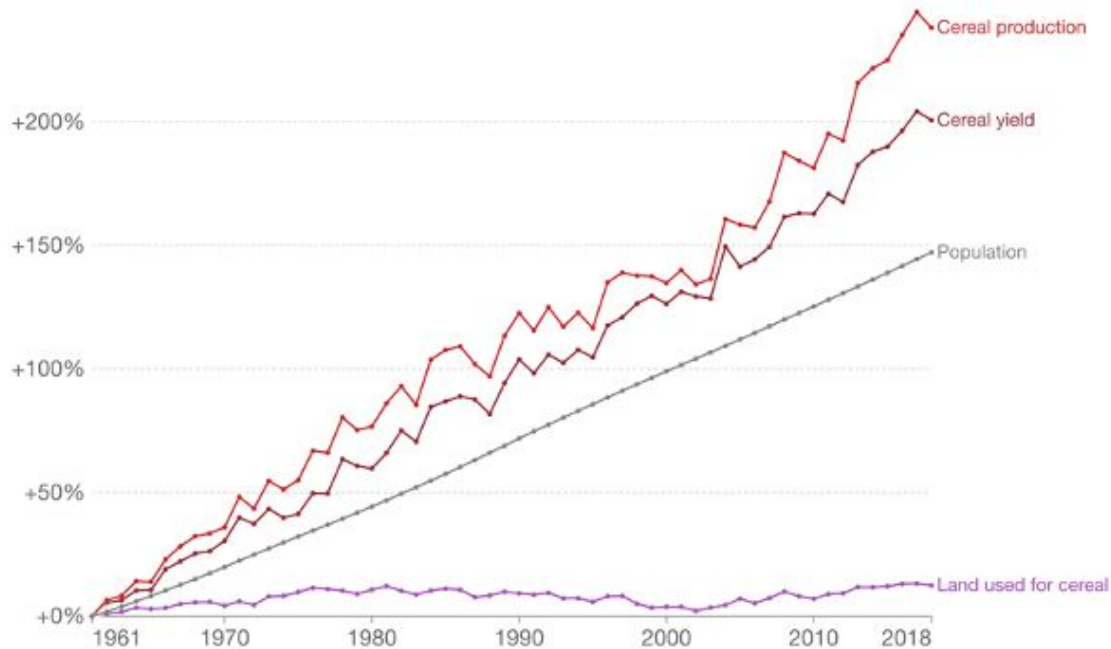
24
DECLASSIFIED Authority E.O. 13526
NND 76630



Change in cereal production, yield and land use, World, 1961 to 2018

Our World
in Data

Population and cereal production, yield and land use figures are indexed to the year 1961 (i.e. 1961 = 0).



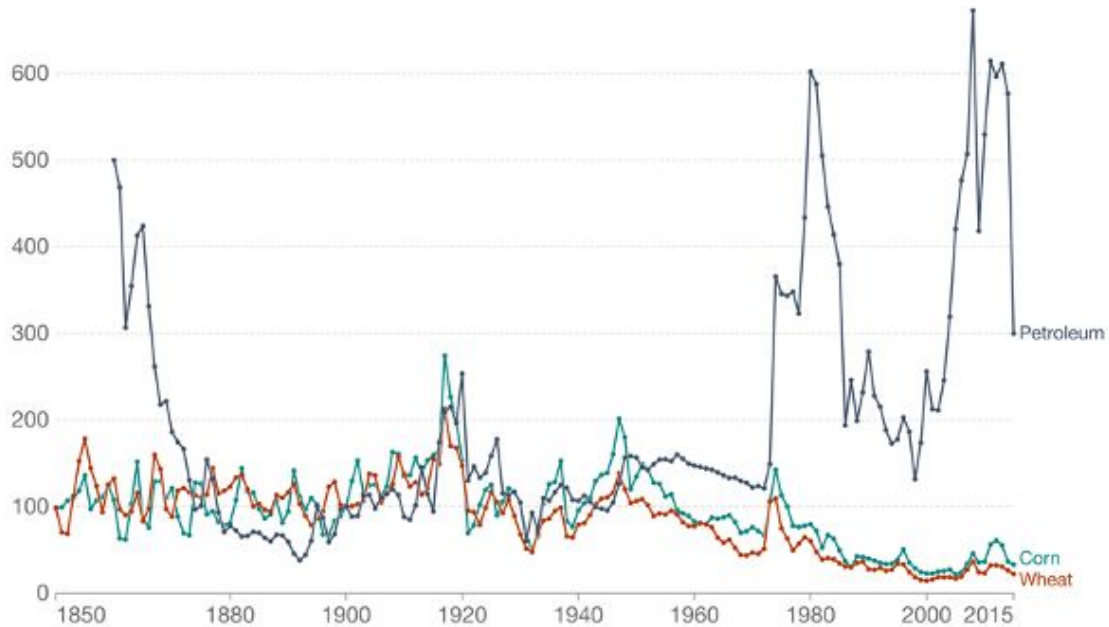
Source: Our World in Data based on World Bank, Food and Agriculture Organization of the United Nations
OurWorldInData.org/crop-yields • CC BY



Commodity price index of cereal crops and petroleum, 1850 to 2015

Global commodity price index of cereal crops and petroleum, measured relative to real prices in 1900 (where 1900 = 100).

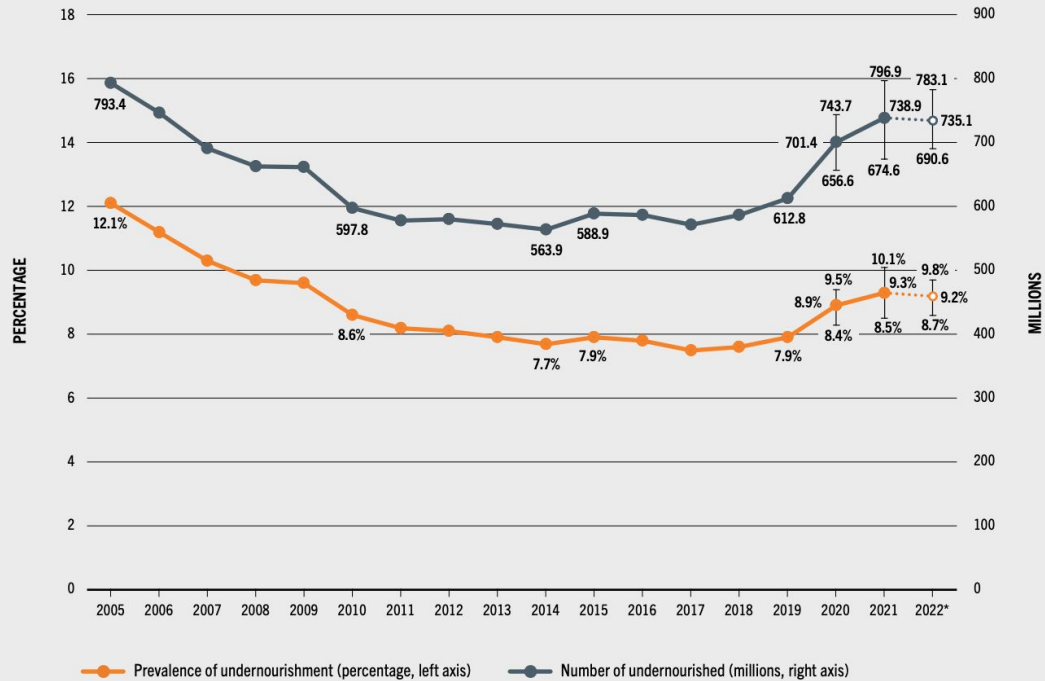
Our World
in Data



Source: Jacks, D.S. (2019), "From Boom to Bust: A Typology of Real Commodity Prices in the Long Run." *Cliometrica* 13(2), 202-220.
OurWorldInData.org/food-prices/ • CC BY



FIGURE 1 GLOBAL HUNGER REMAINED VIRTUALLY UNCHANGED FROM 2021 TO 2022 BUT IS STILL FAR ABOVE PRE-COVID-19-PANDEMIC LEVELS

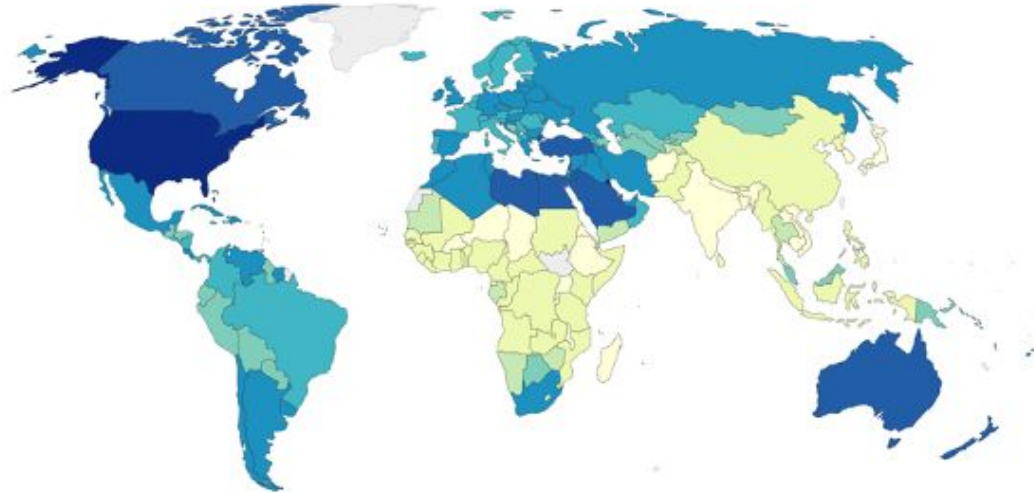


NOTES: * Projections based on nowcasts for 2022 are illustrated by dotted lines. Bars show lower and upper bounds of the estimated range.
SOURCE: FAO. 2023. FAOSTAT: Suite of Food Security Indicators. In: FAO. [Cited 12 July 2023]. www.fao.org/faostat/en/#data/FS



Share of adults that are obese, 2016

Obesity is defined as having a body-mass index (BMI) equal to, or greater than, 30. BMI is a person's weight (in kilograms) divided by their height (in meters) squared.

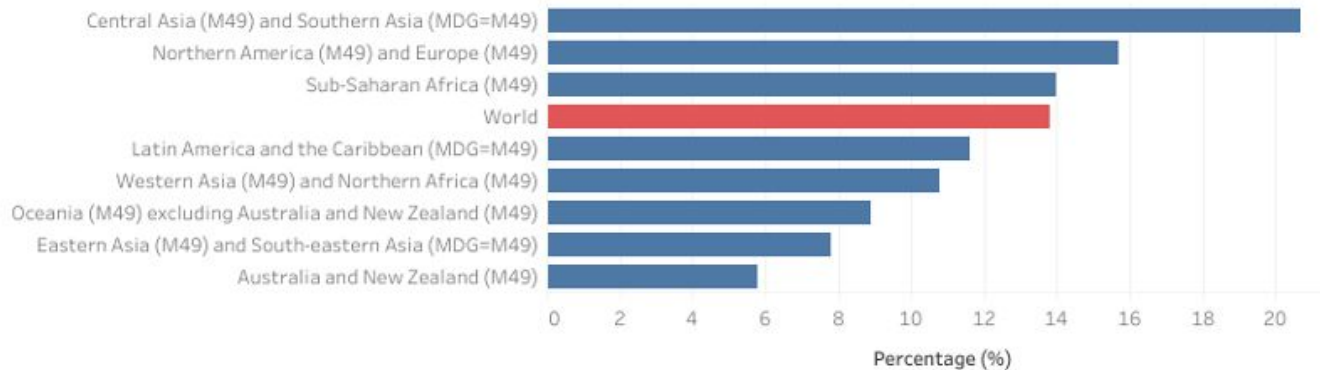


Source: WHO, Global Health Observatory

OurWorldInData.org/obesity - CC BY



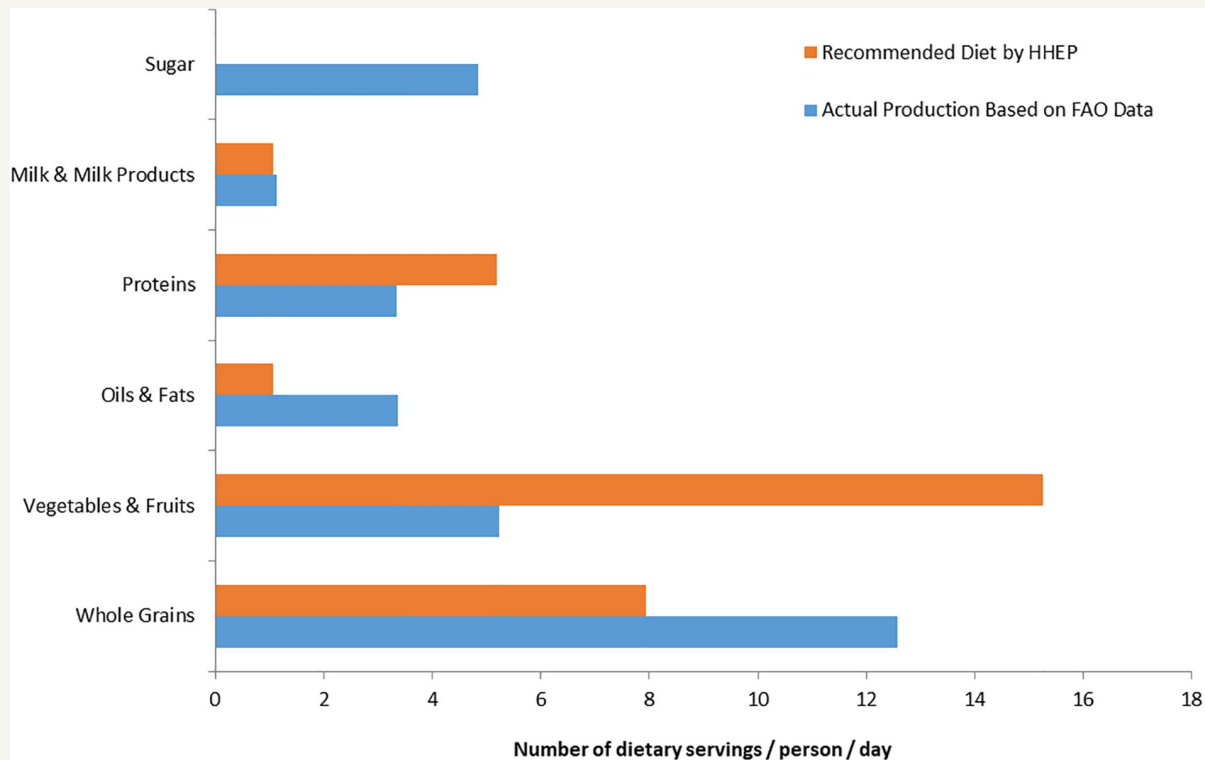
Sub-indicator 12.3.1.a - Food Loss Index from post-harvest to distribution, 2016



For indicator metadata, please visit: <http://www.fao.org/3/CA2593EN/ca2593en.pdf>



Does current food production meet global nutritional needs?



Source:
<https://journals.plos.org/plosone/article/figure?id=10.1371/journal.pone.0205683.g001>
and <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0205683>

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GEOPOLITICS TODAY



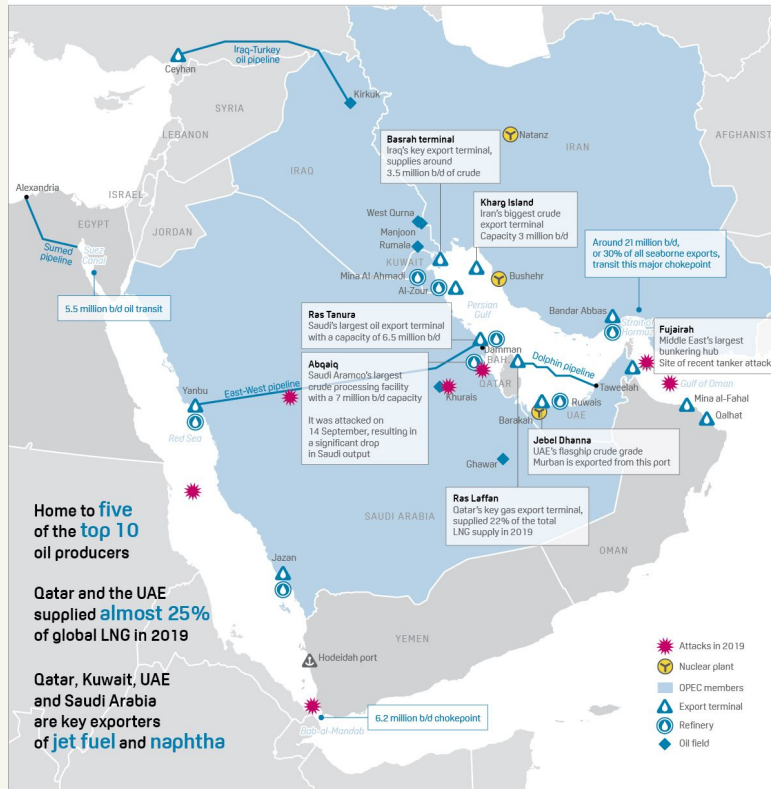


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IRAN CRISIS PUTS FOCUS ON MIDDLE EAST ENERGY SECURITY

Oil continues to price in a risk of Iran retaliating for the killing of General Qassem Soleimani. S&P Global Platts Analytics estimates the risks of a broader US-Iran conflict below 50/50, but there is growing concern over the security of energy infrastructure in the Gulf and Strait of Hormuz. "Despite anxiety throughout the region over a possibly imminent retaliation, Iran is likely to respond indirectly at a time of its choosing," said Paul Sheldon, chief geopolitical advisor at Platts Analytics.

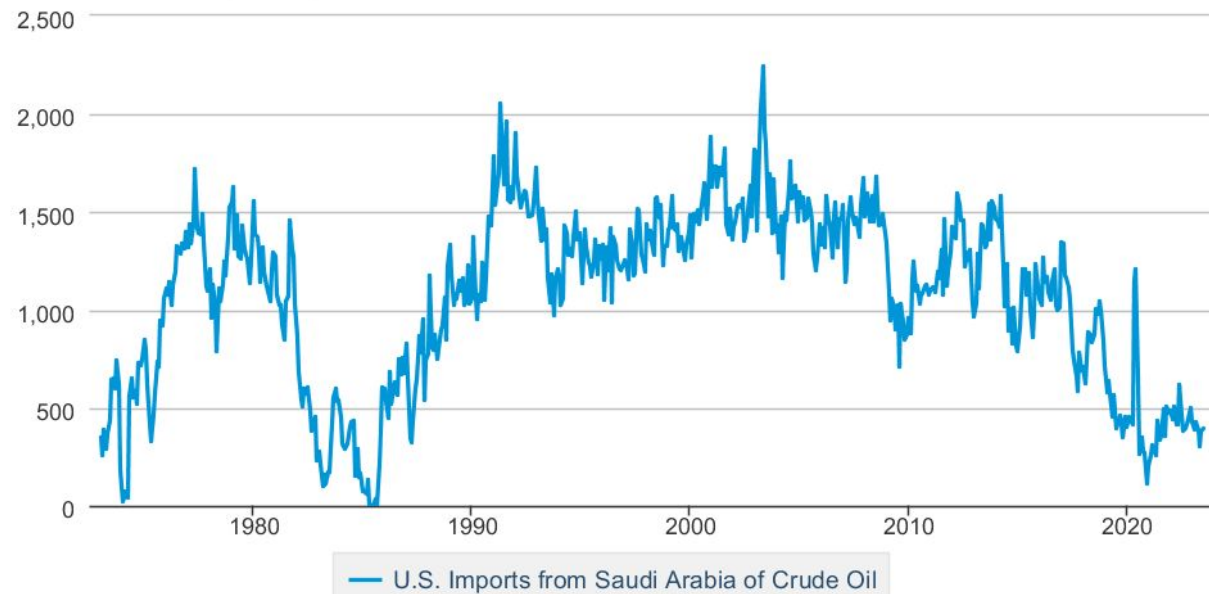


Source: S&P Global Platts



U.S. Imports from Saudi Arabia of Crude Oil

Thousand Barrels per Day



Data source: U.S. Energy Information Administration



SETTLING SCORES



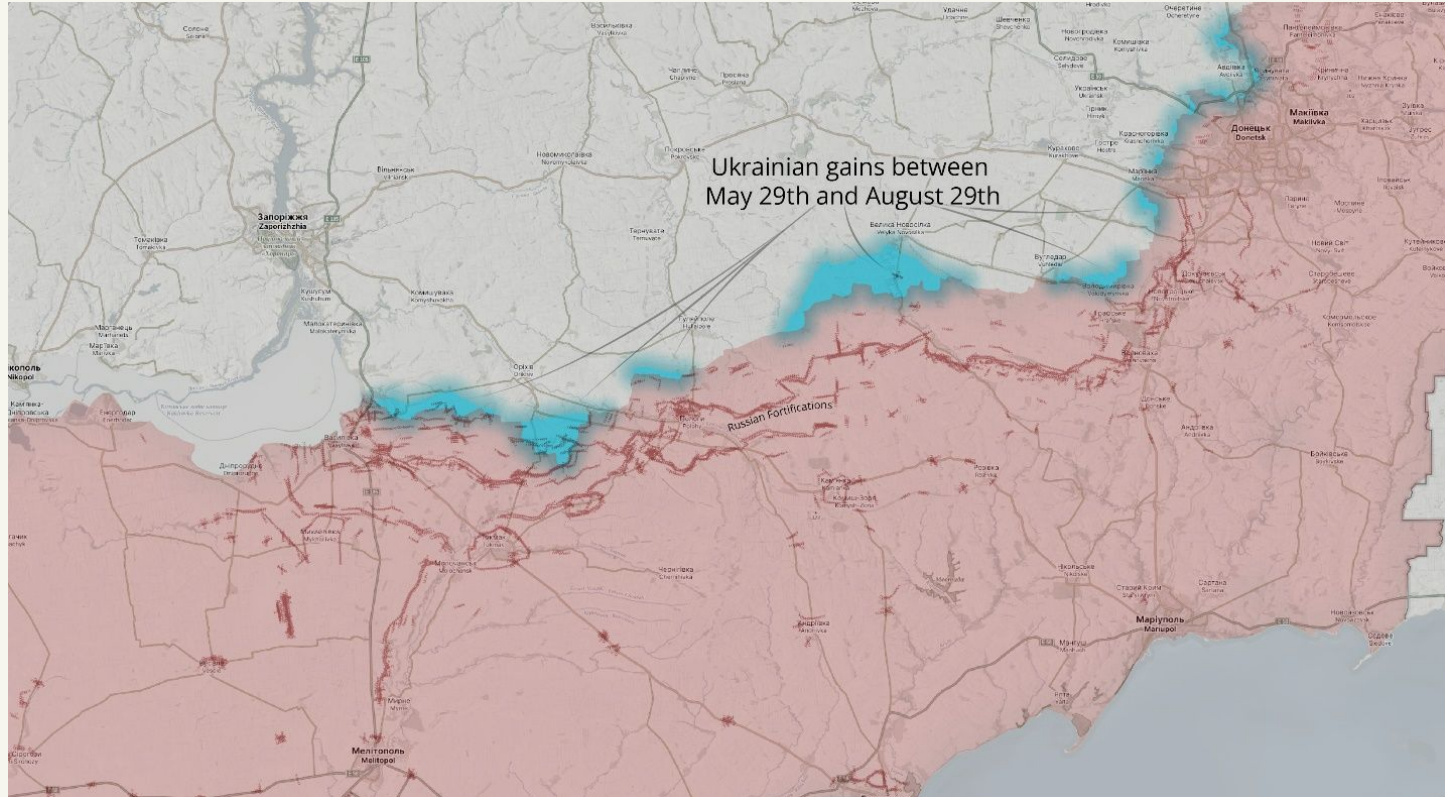






Ukrainian gains between May 29th-August 29th.

Source: Nathan Ruser, based on data from DeepState, an established Ukrainian OSINT source

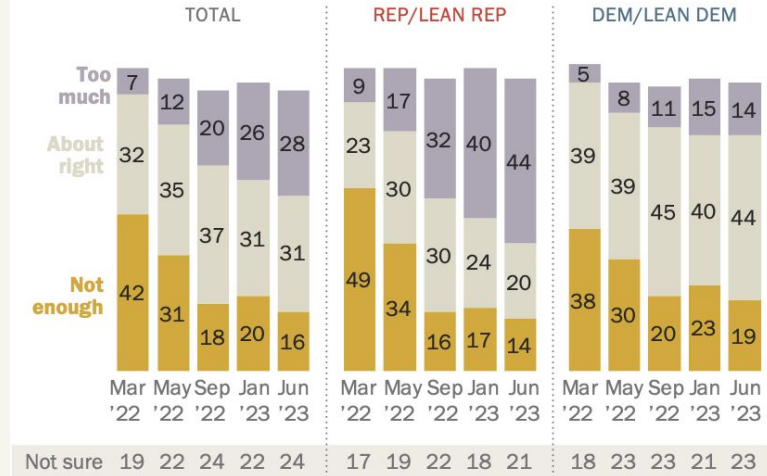






Since Russia's invasion, Republicans have grown increasingly skeptical of U.S. aid level to Ukraine

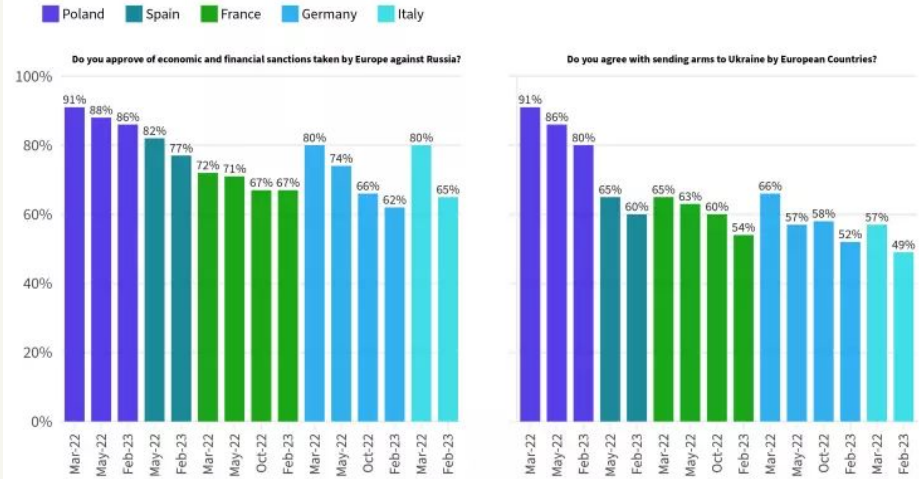
% who say, when it comes to Russia's invasion of Ukraine, the U.S. is providing ___ support to Ukraine



Note: No answer responses not shown.
Source: Survey of U.S. adults conducted June 5-11, 2023.

PEW RESEARCH CENTER

Figure 3: Approval ratings for economic and financial sanctions (left) and sending arms (right)

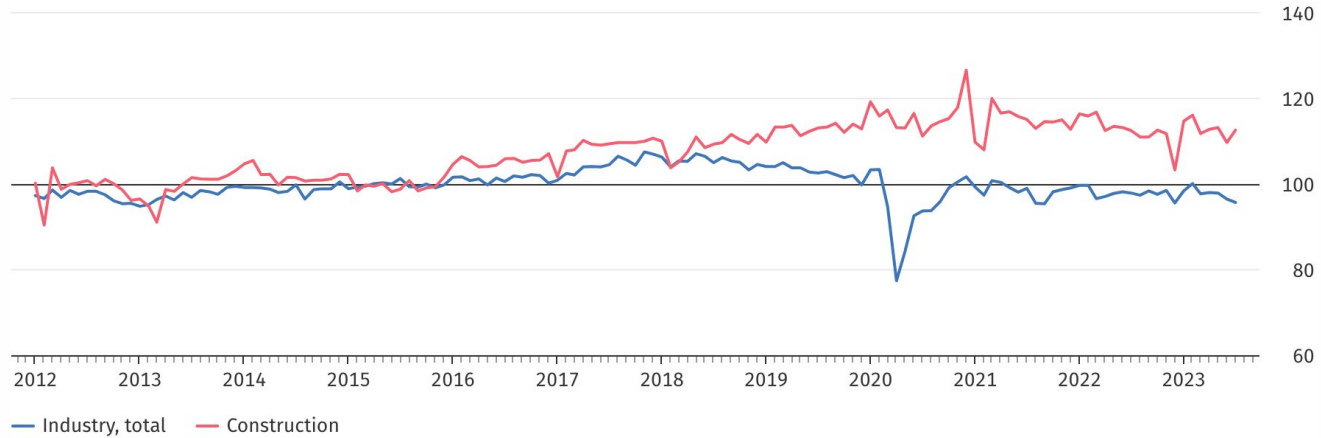




German Industrial Production 2012-2023

Production index for the industry

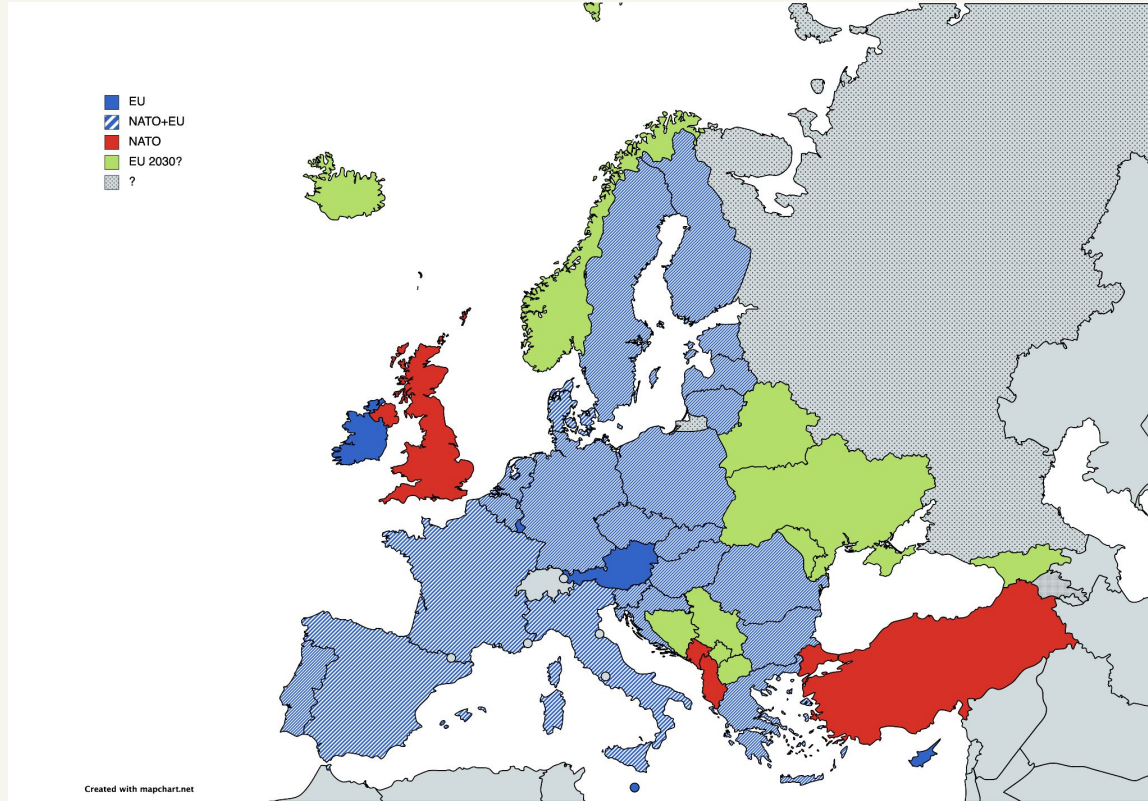
2015 = 100; seasonally and calendar adjusted (X13 JDemetra+)



© Statistisches Bundesamt (Destatis) 2023



The Future of Europe





China's Perspective

Section 2 The Maturation of China



Source: Earthstar Geographics, U.S. National Park Service

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© 2016 Geopolitical Futures



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Not out of the woods yet

The contraction in China's exports and imports slowed down in September as both shrank by 6.2% from a year earlier.

Change in dollar-denominated exports and imports (Y/Y)



Source: LSEG Datastream | Reuters, Oct. 13, 2023 | By Kripa Jayaram

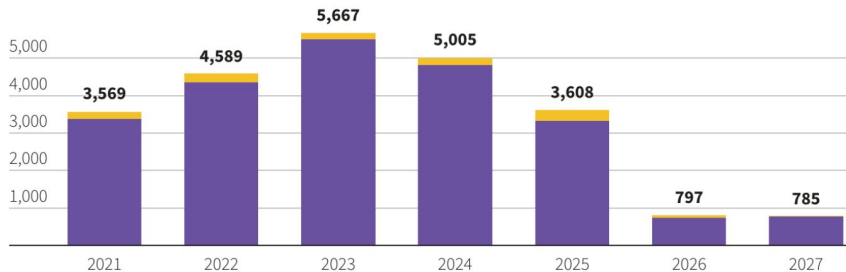


China's high local government debt

Chinese Local Government Financing Vehicles (LGFVs) face big repayment pressures.

LGFV's bond maturities (in bln yuan)

● Onshore ● Offshore



Note: Numbers are rounded off

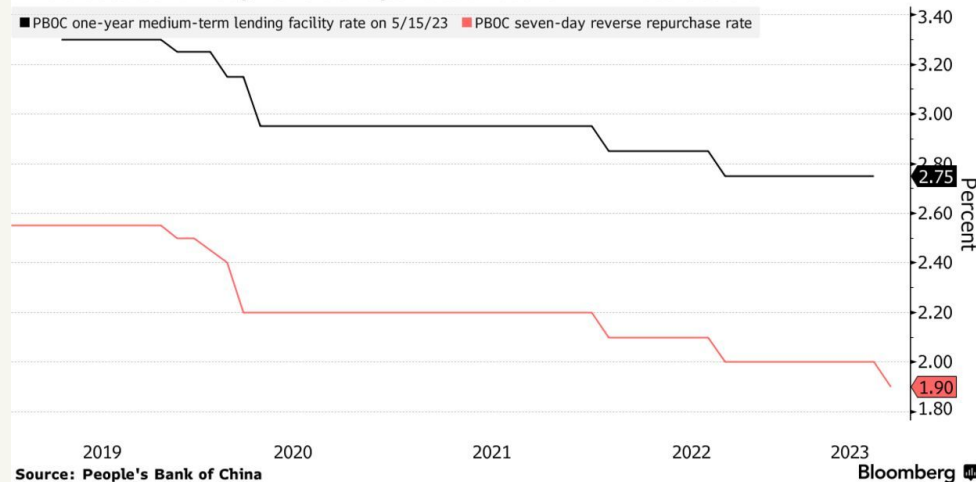
Source: Fitch Ratings | Reuters, March 10, 2023 | By Kripa Jayaram

The total debt of China's LGFVs has swelled to a record 66 trillion yuan (\$9.5 trillion), equivalent to half of the country's economy, from 57 trillion yuan last year, according to an International Monetary Fund (IMF) report last month. (Source: Reuters) U.S. = \$3.244 trillion = 14%

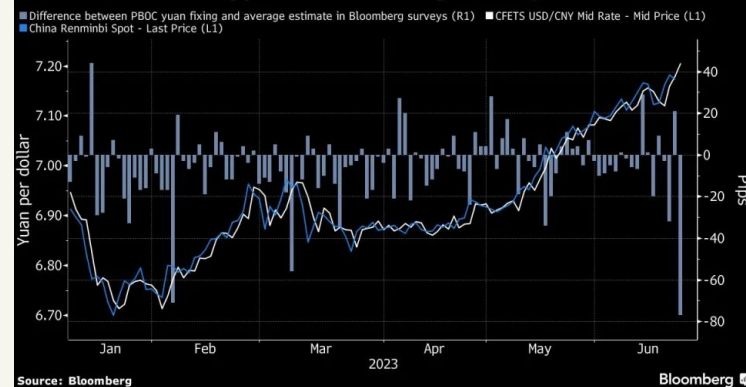


Short-Term Policy Rate Cut

PBOC cuts seven-day reverse repo rate ahead of MLF rate decision



China Moves to Support Yuan Through Fixing



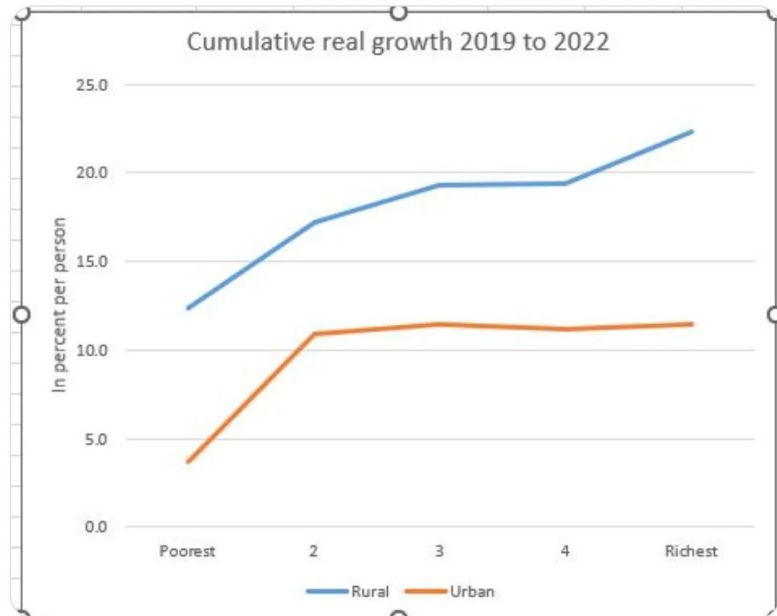


Branko Milanovic reposted



Branko Milanovic @BrankoMilan · Aug 26

According to the newly-released Chinese data, overall real incomes in 2022 are 14% higher than in 2019 (before covid). The increase has been much stronger in rural than in urban areas. It is noticeable that the bottom urban quintile has almost not grown at all.



6 63 186 60.9K



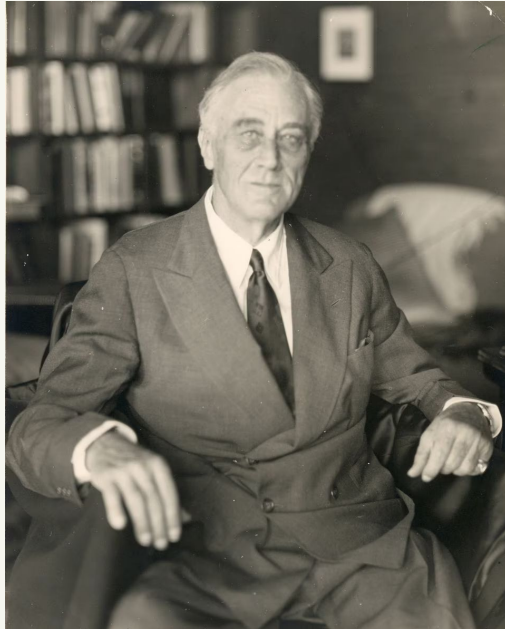


CNN Poll, July 2022-2023: "Do you think that Joe Biden legitimately won enough votes to win the presidency, or not?"

96 percent of Democrats say, "Yes."

71 percent of Republicans say, "No."

	Total	Demo- crat	Indep endnt Other	Repub lican	Lib- eral	Mode- rate	Con serva tive
Biden legitimately won the presidency (Net)	61%	96%	60%	27%	92%	71%	29%
Biden did not legitimately win presidency (Net)	38%	4%	39%	71%	8%	29%	69%
Not legitimate, Solid evidence	19%	1%	16%	41%	2%	13%	38%
Not legitimate, Suspicion only	19%	2%	23%	30%	5%	15%	31%
Not legitimate, No opinion	*	*	*	*	0%	*	1%
No opinion	1%	*	1%	2%	1%	1%	2%
Sampling Error (+/-)	3.7	6.4	6.3	6.5	7.7	5.5	6.5







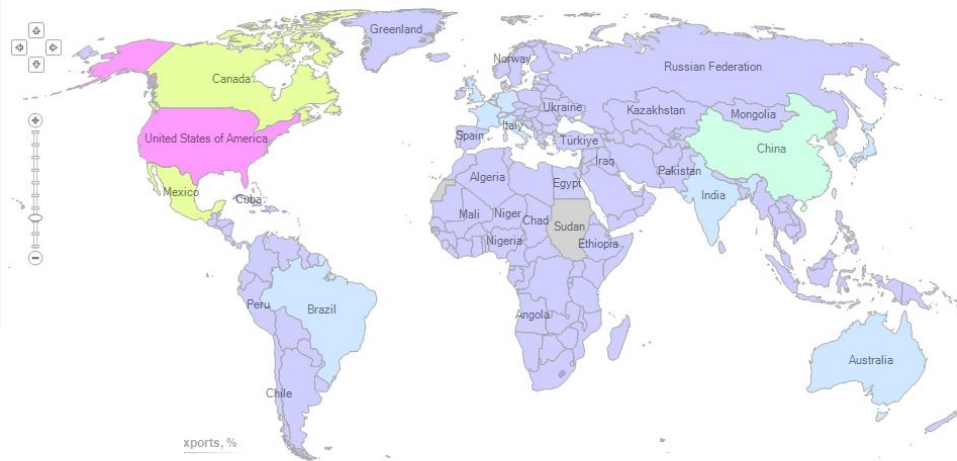
2 minute read · March 1, 2023 4:24 PM CST · Last Updated 2 months ago

US looking at 'all options' over corn dispute with Mexico, says official

By Andrea Shalal

List of importing markets for a product exported by United States of America in 2021

Product : TOTAL All products



BIGGEST EXPORT TRADING PARTNER



4 minute read · March 27, 2023 6:41 PM CDT · Last Updated 21 days ago

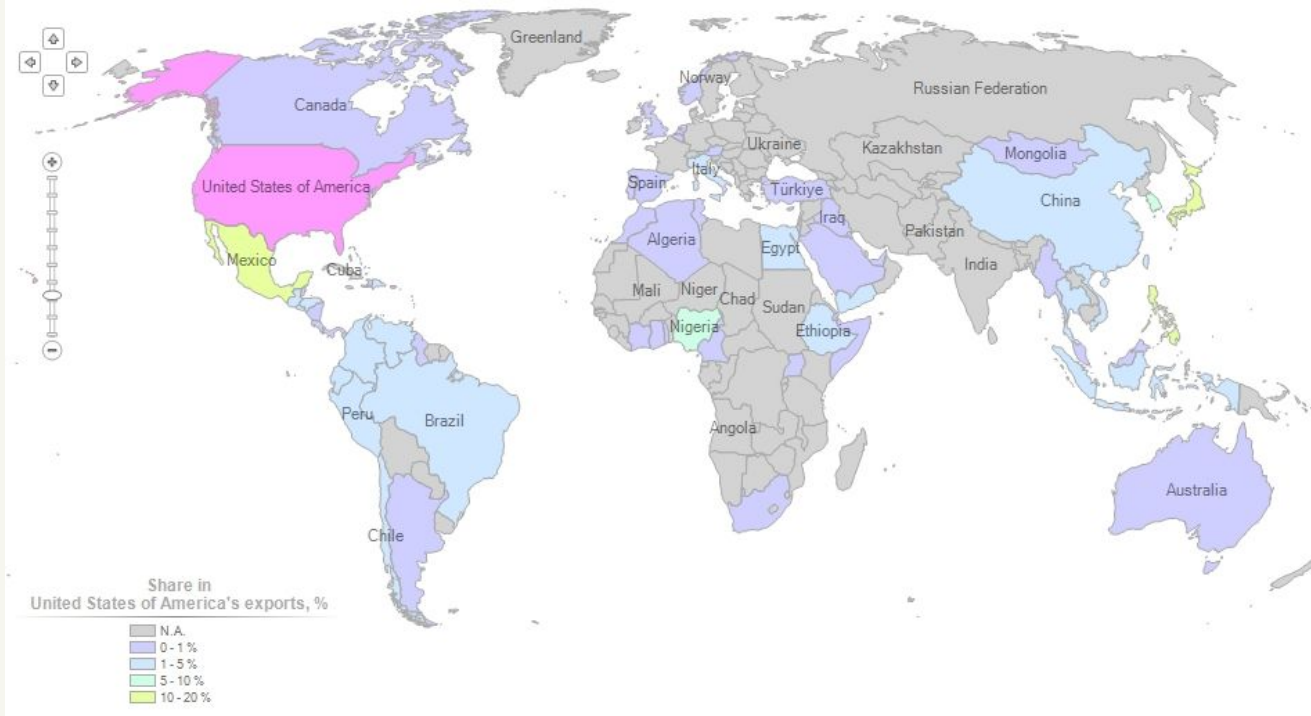
Exclusive: US plans ultimatum in Mexico energy dispute, raising threat of tariffs

By Jarrett Renshaw and David Lawder



List of importing markets for a product exported by United States of America in 2022

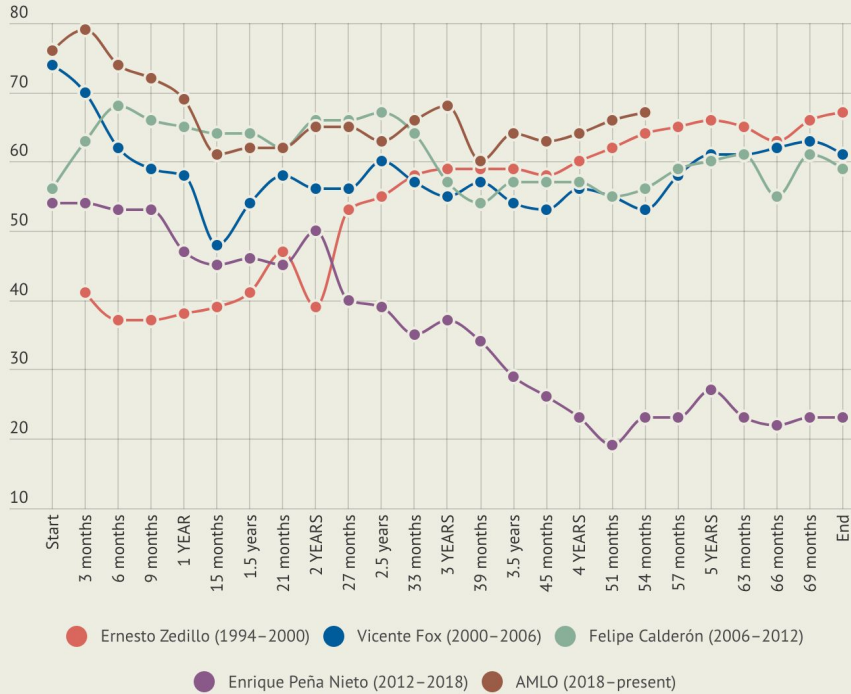
Product : 1001 Wheat and meslin





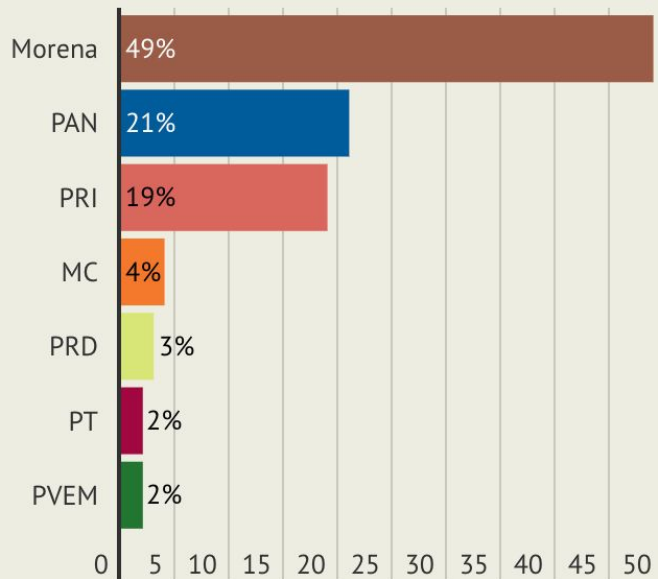
Where does AMLO stand with respect to other presidents?

The firm [also charts](#) the approval ratings of AMLO along with those of his four predecessors over time. Below are approval levels at the conclusion of each quarter.





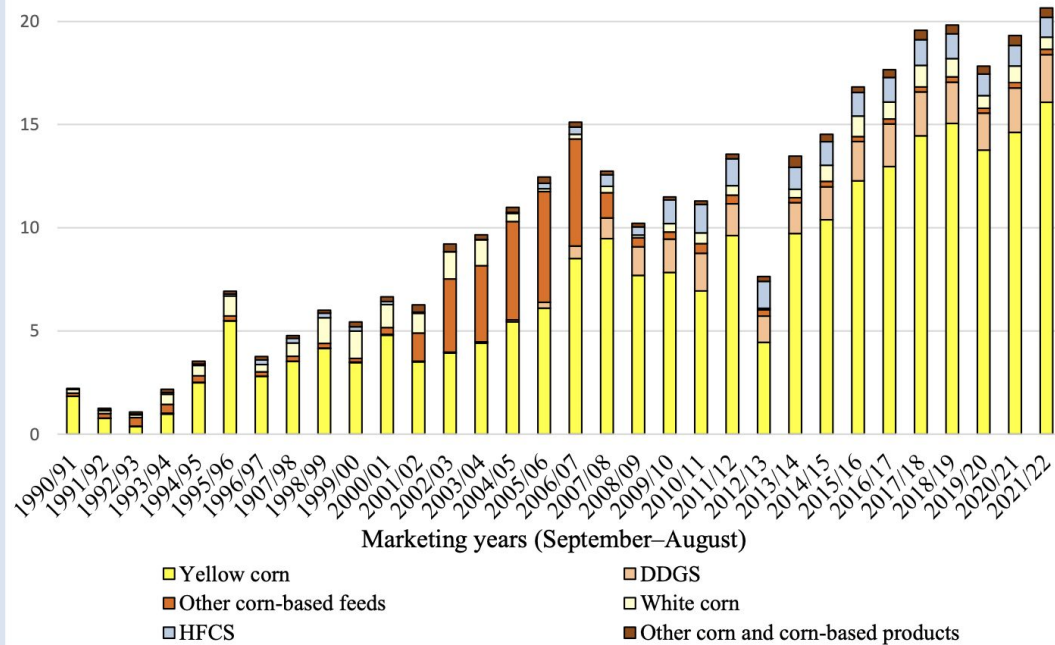
Party Support: "If the election for the president of the republic were held today, for which party would you vote?"





U.S. exports to Mexico of corn and selected corn-based products, marketing years 1990/91–2021/22

Million metric tons

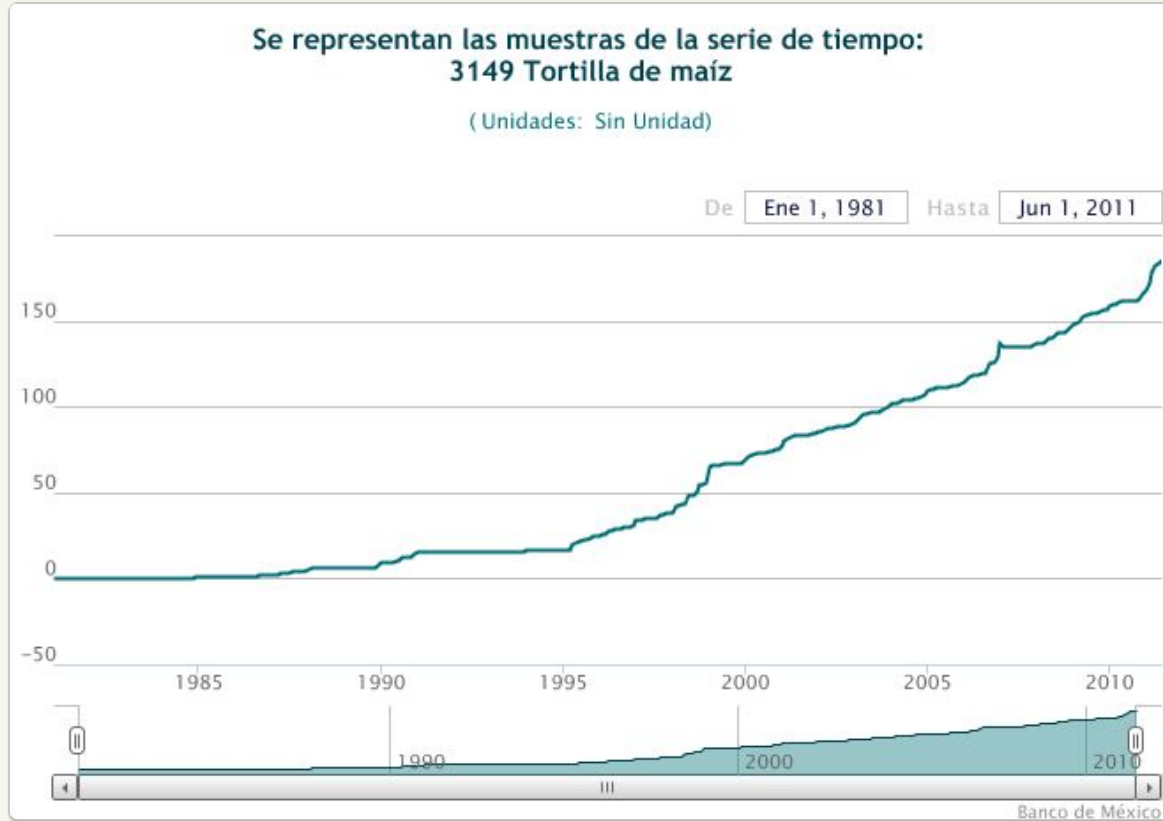


Note: HFCS = High-fructose corn syrup. DDGS: Distiller's dried grains with solubles.

Source: U.S. Bureau of the Census trade data.



“What it is about is consolidating sovereignty and food security in a central input in the culture of Mexicans.”







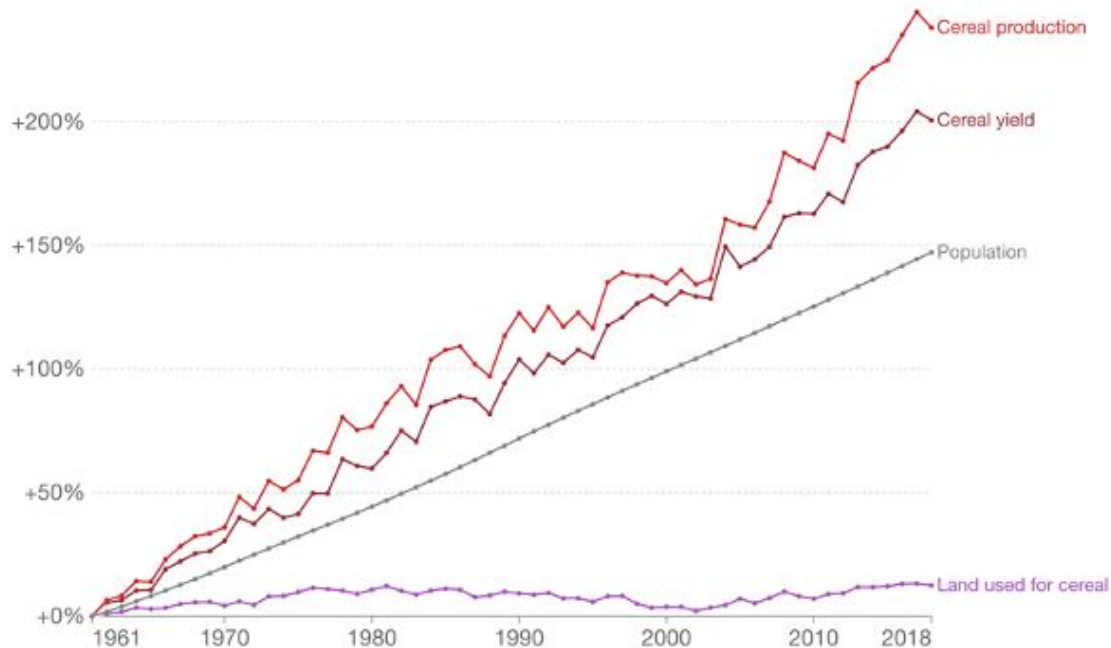
SO WHAT?



Change in cereal production, yield and land use, World, 1961 to 2018

Our World
in Data

Population and cereal production, yield and land use figures are indexed to the year 1961 (i.e. 1961 = 0).

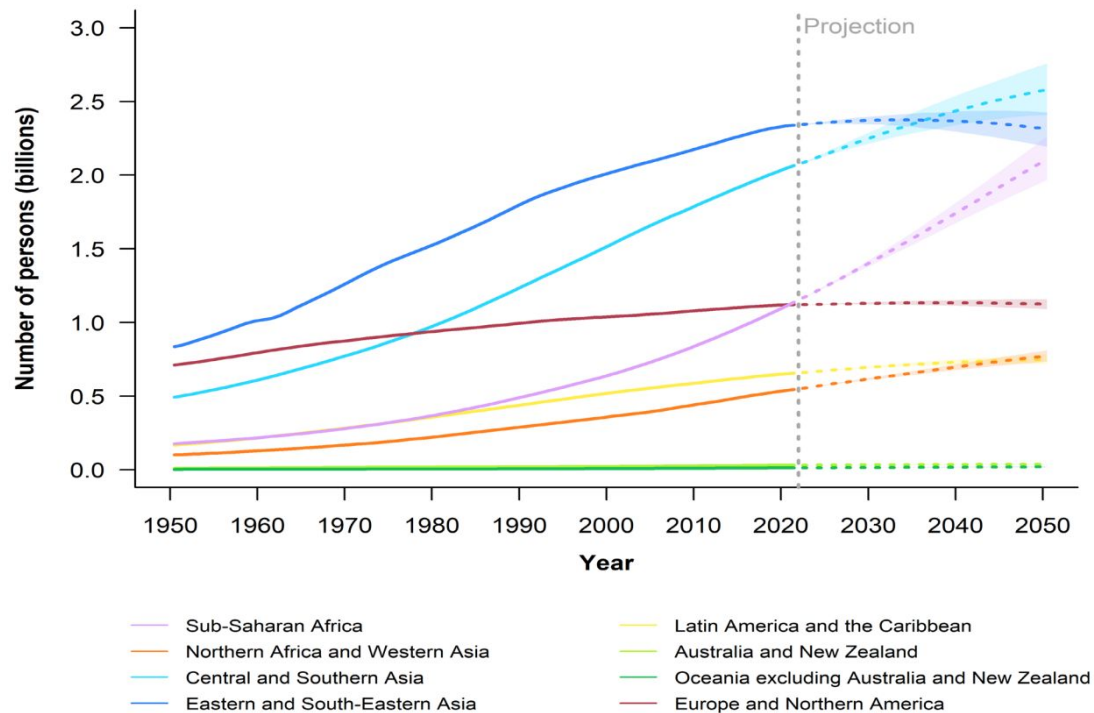


Source: Our World in Data based on World Bank, Food and Agriculture Organization of the United Nations
OurWorldInData.org/crop-yields • CC BY



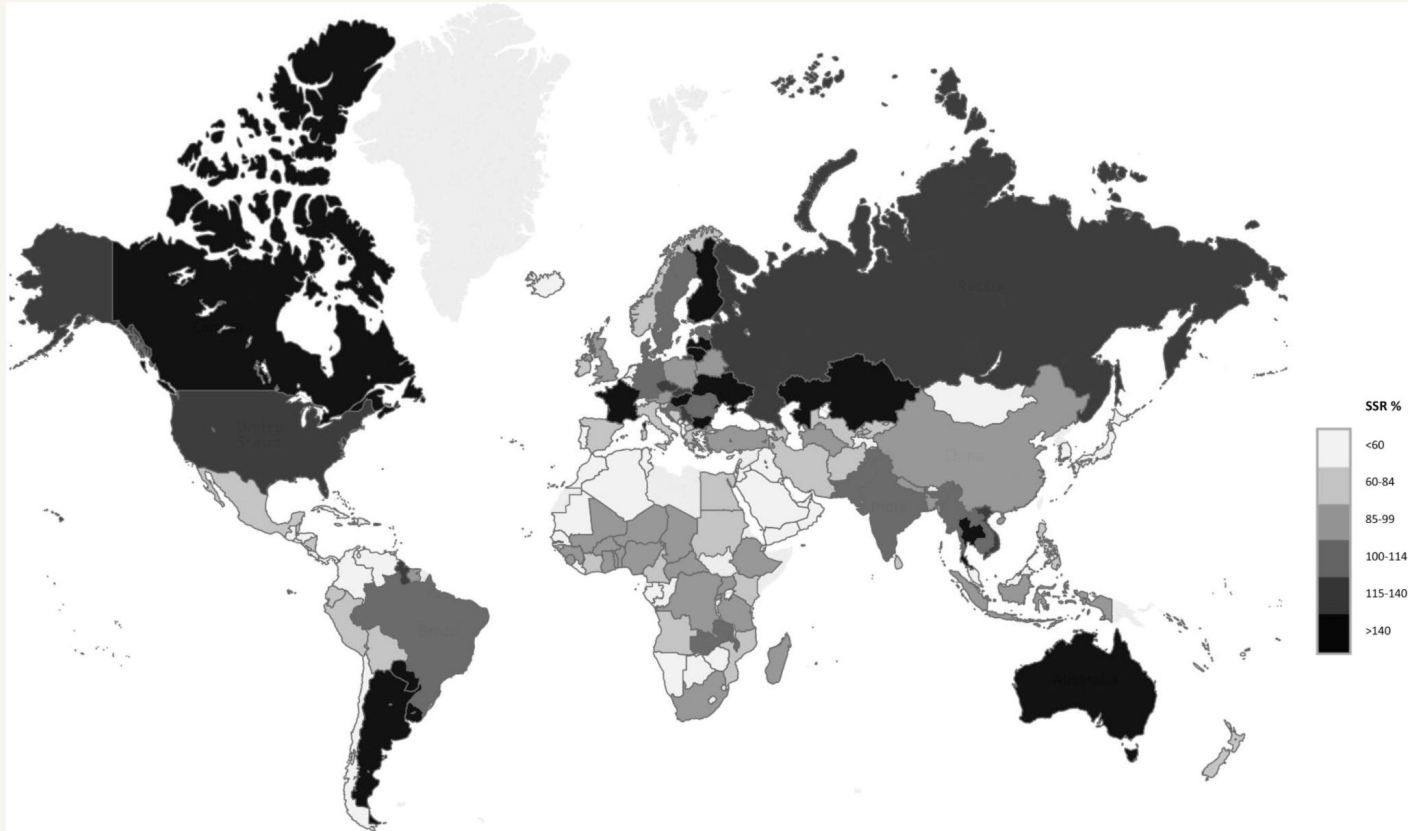
Figure I.2

Population estimates, 1950-2022, and projections with 95 per cent prediction intervals, 2022-2050, by region

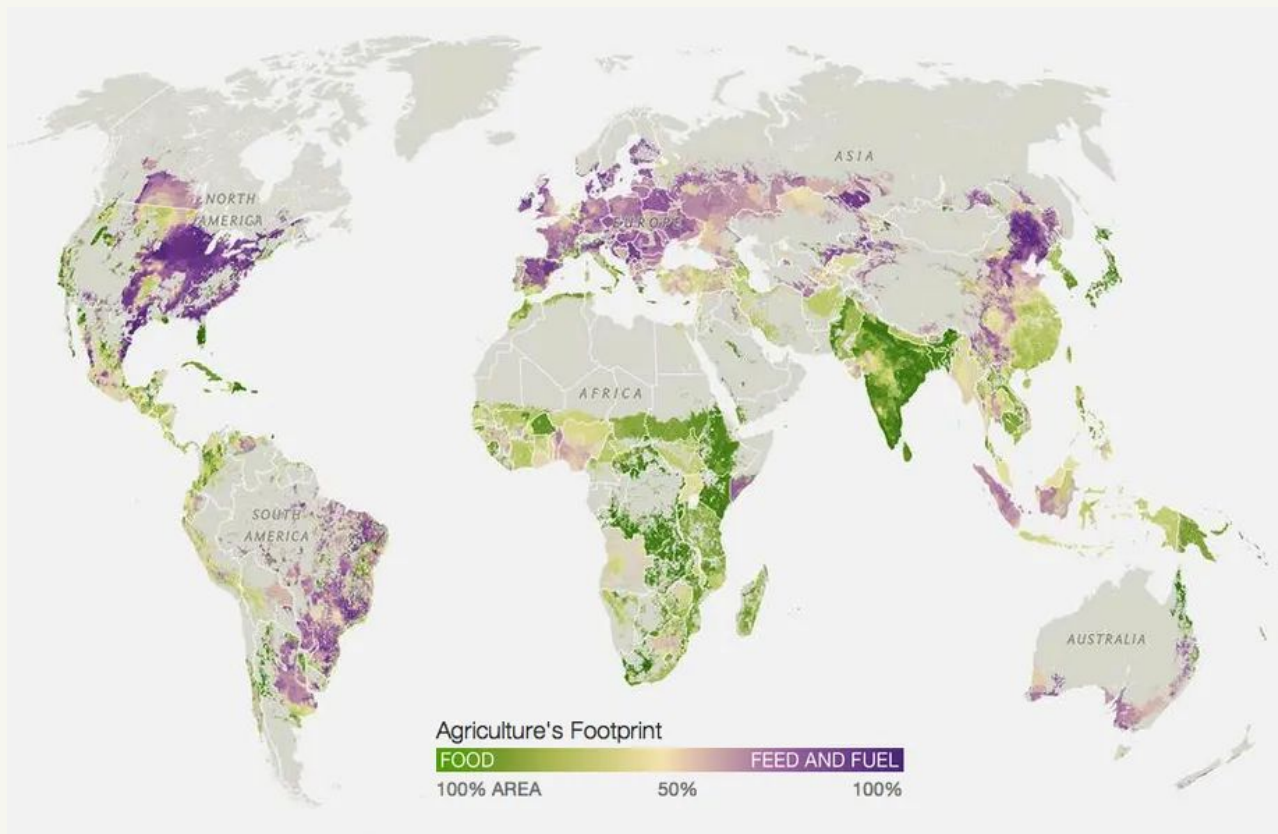




Food Self-Sufficiency



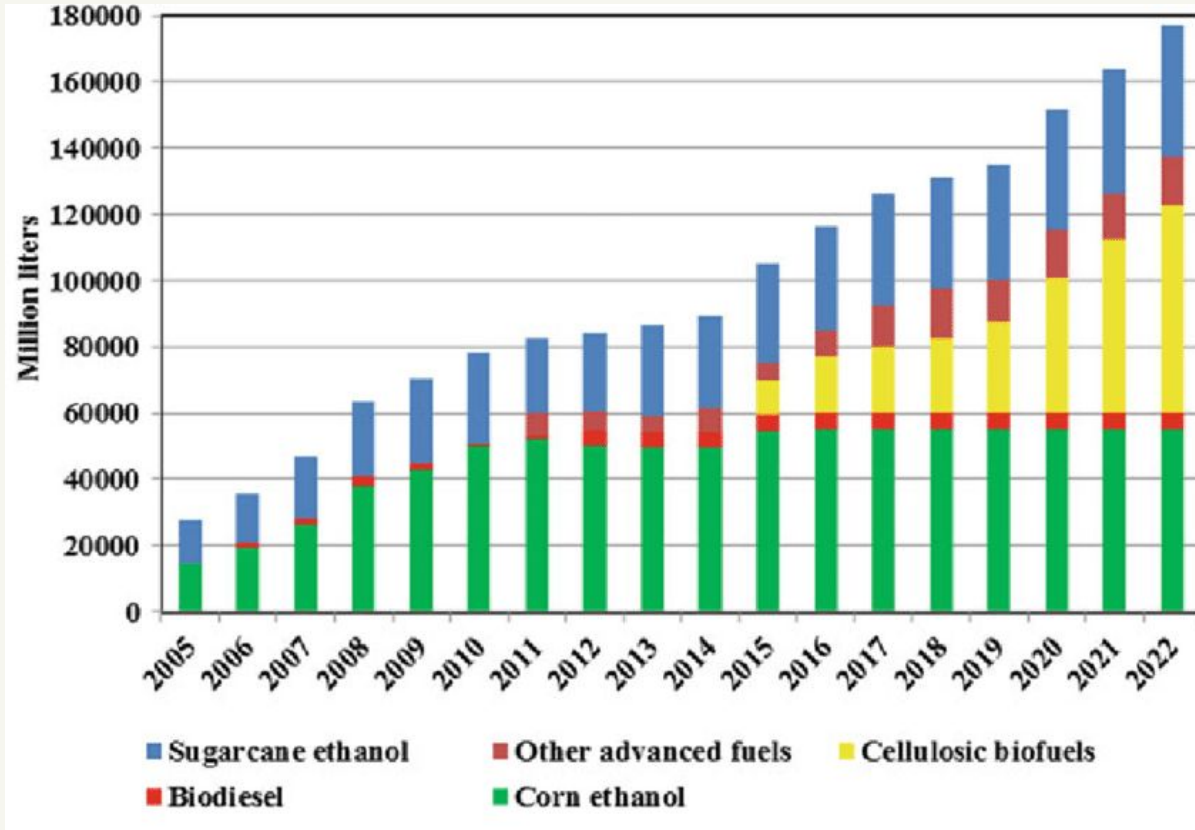
Source:
https://ars.els-cdn.com/content/image/1-s2.0-S0306919216305851-gr2_lrg.jpg





Global Biofuels Production 2005-2022

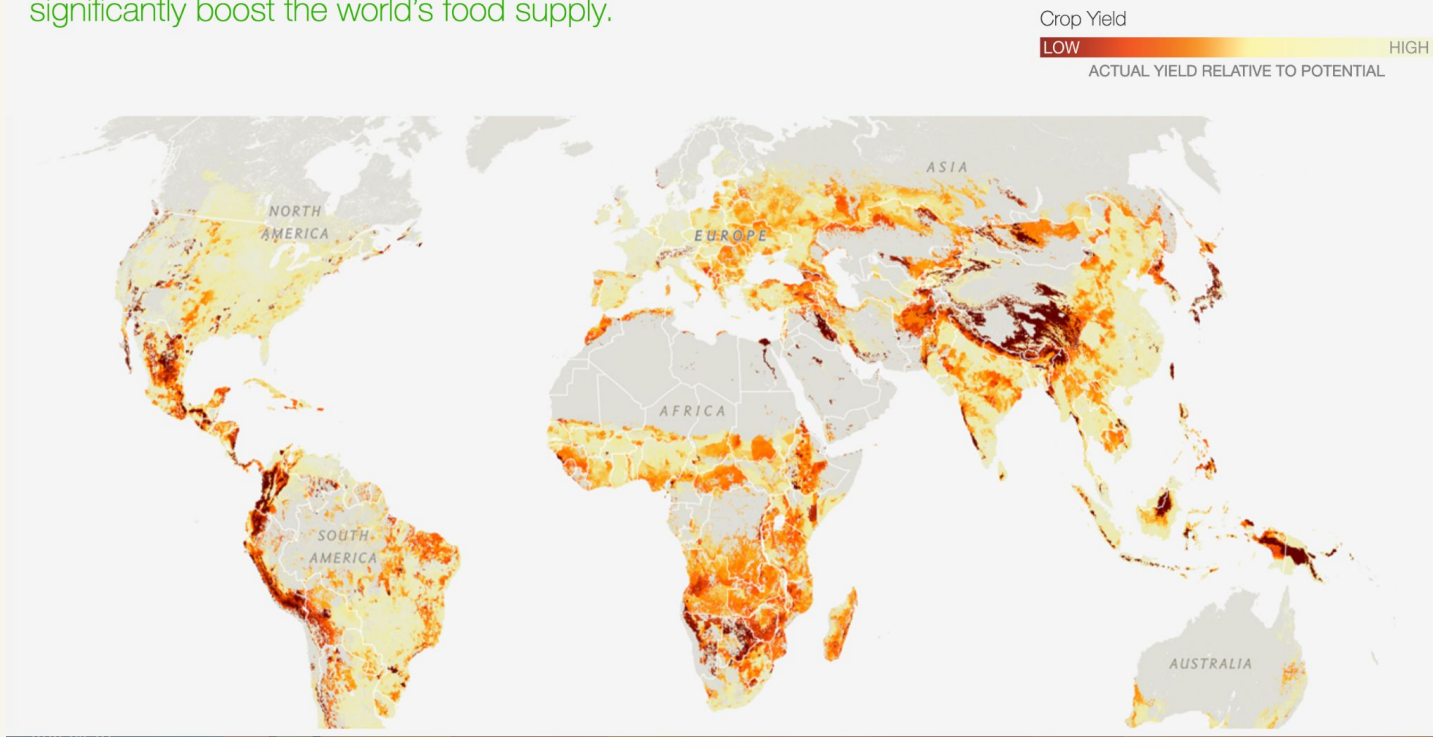
Source: OECD/FAO, United States Environmental Protection Agency, United States Energy Information Administration



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Increasing yields on underperforming farms could significantly boost the world's food supply.

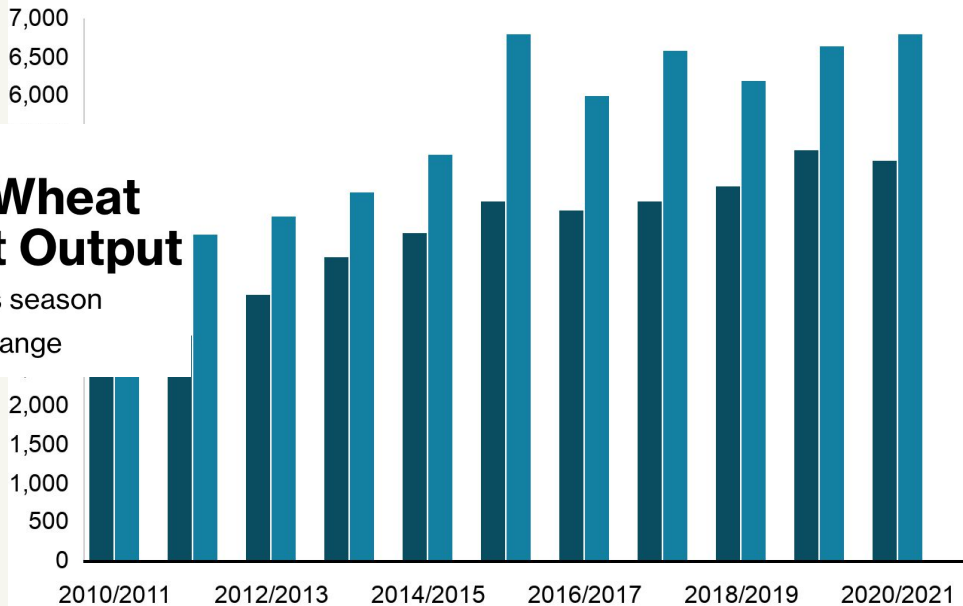




Ethiopia's wheat production and consumption

Thousands of tonnes

■ Production ■ Consumption



Markets

Ethiopia is Producing Surplus Wheat for Export After Drive to Boost Output

- Agriculture minister sees production rising by 27% this season
- Import substitution saved nation \$1 billion foreign exchange

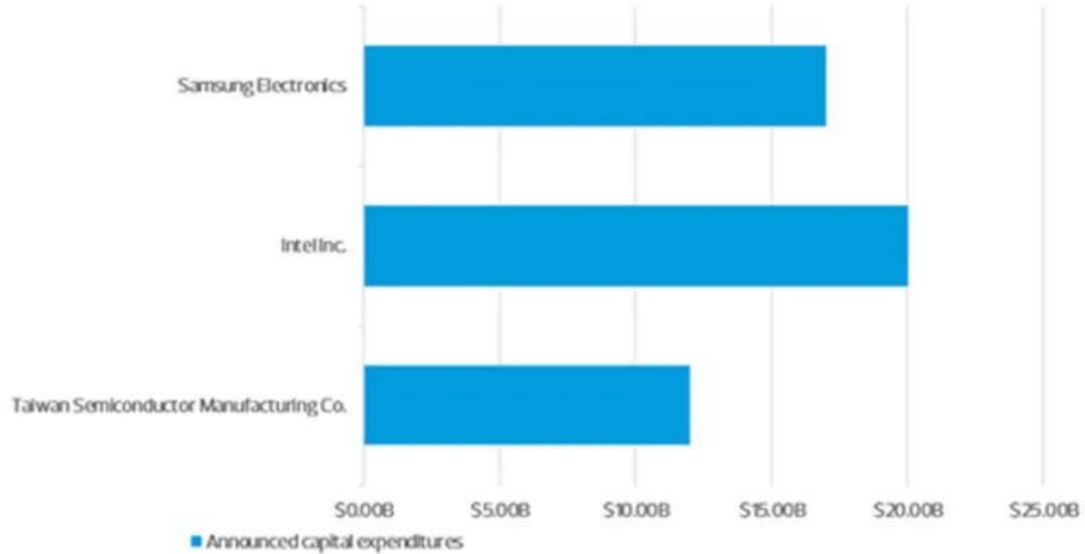
Source: United States Department of Agriculture





Planned U.S. foundry investment (announced)

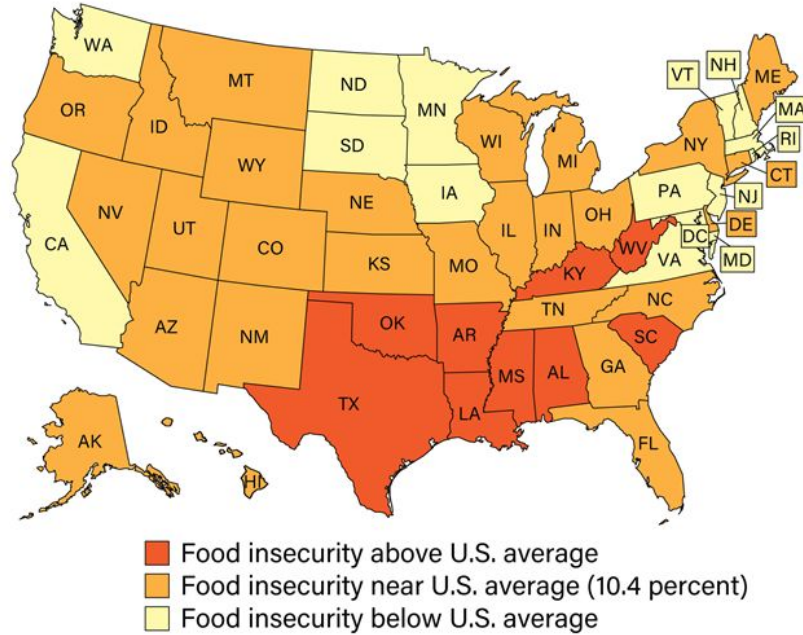
Expected to occur 2021-2024



Source: Bloomberg, LP; RSMUS LLP



Prevalence of food insecurity, average 2019-21



Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, 2019, 2020, and 2021 Current Population Survey Food Security Supplements.



Wall Street,
West, from but
not including
William Street,
to Broadway.
Showing Trinity
Church in the
background,
1896.
Ewing Galloway.





Times Square
1911 Source:
Getty





Q&A

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