

Where Do Strategic Minerals Come From?

Graphical story by Umer Farooq

What is a Critical Mineral?

"Critical minerals," are minerals that are considered essential for various industrial and technological applications, and their supply is often at risk due to geopolitical issues, limited availability, or high demand. These minerals play a crucial role in the manufacturing of electronics, renewable energy technologies, and other advanced materials. Some examples of critical minerals include:

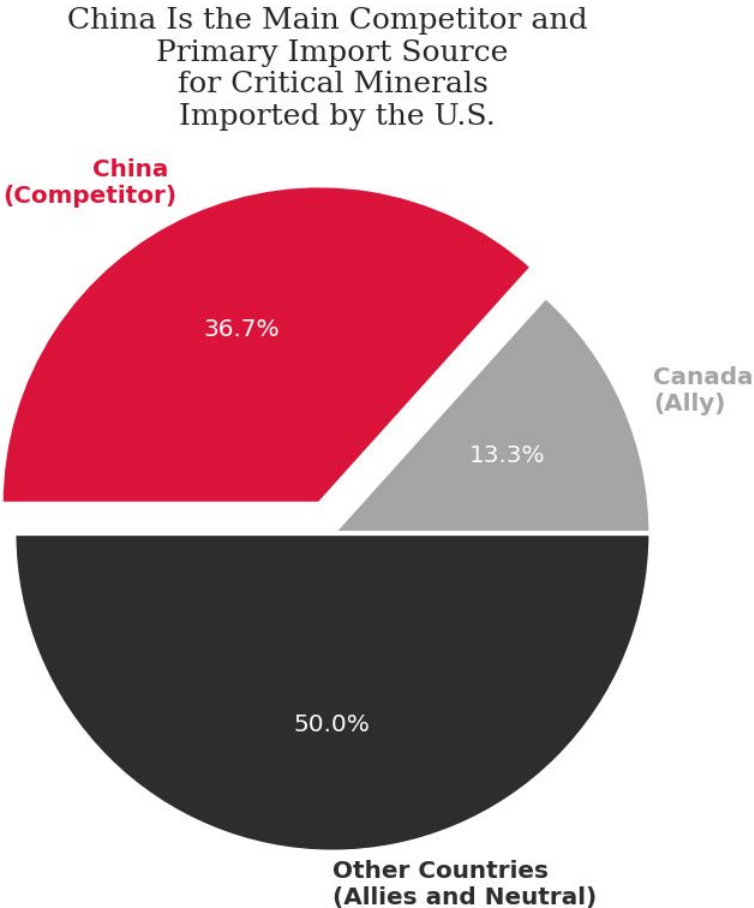
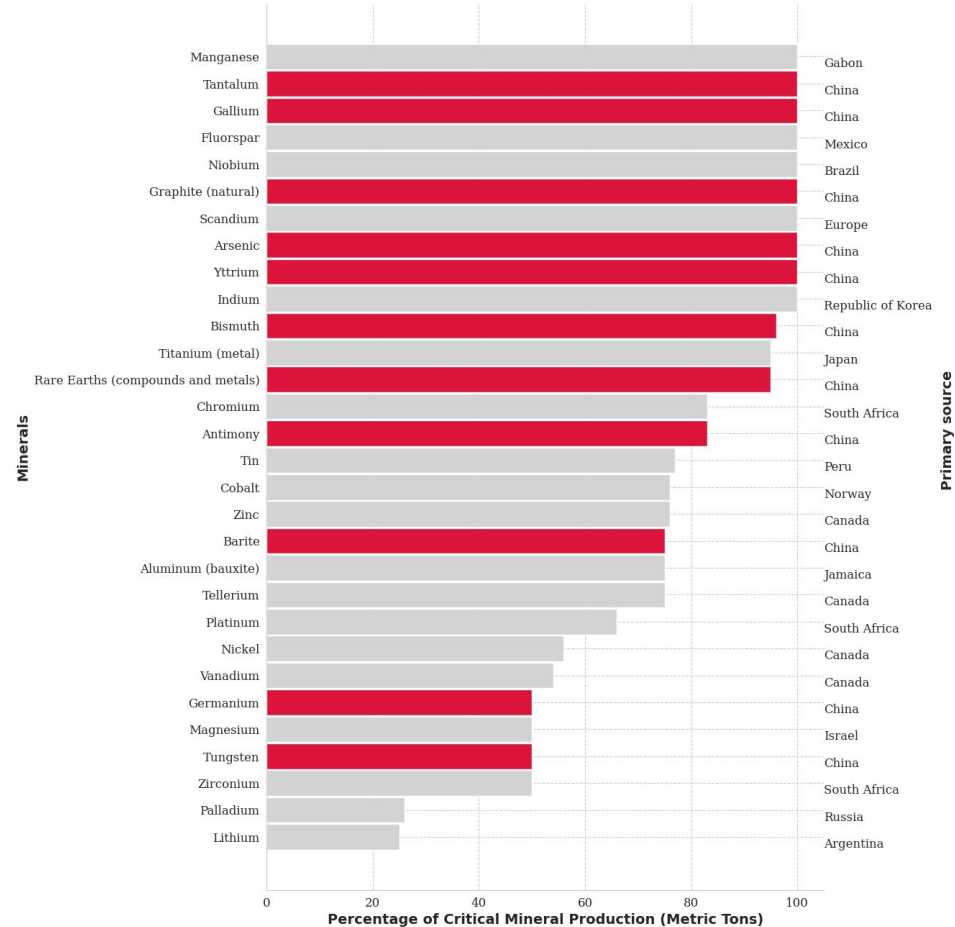
- **Rare Earth Elements (REEs):** These include elements like neodymium, dysprosium, and europium, which are vital for the production of magnets, batteries, and electronics.
- **Lithium:** Used in rechargeable batteries for electric vehicles and electronic devices.
- **Cobalt:** A key component in lithium-ion batteries.
- **Graphite:** Essential for lithium-ion batteries and other energy storage technologies.
- **Platinum Group Metals (PGMs):** Including platinum, palladium, and rhodium, which are critical for catalytic converters in automobiles and other industrial applications.
- **Indium:** Used in the production of flat-panel displays and photovoltaic cells.
- **Tungsten:** Known for its high melting point, tungsten is used in various industrial applications and electronics.
- **Tellurium:** Used in solar panels and electronics.

These minerals are crucial for the development of modern technologies and the transition to a more sustainable and technologically advanced future. The list of critical minerals may evolve over time as new technologies emerge and the demand for specific minerals changes. It's advisable to check more recent sources for the latest information on critical minerals.

Primary Source of Minerals to U.S And The Nature Of Source Country i.e. Ally, Competitor or Neutral

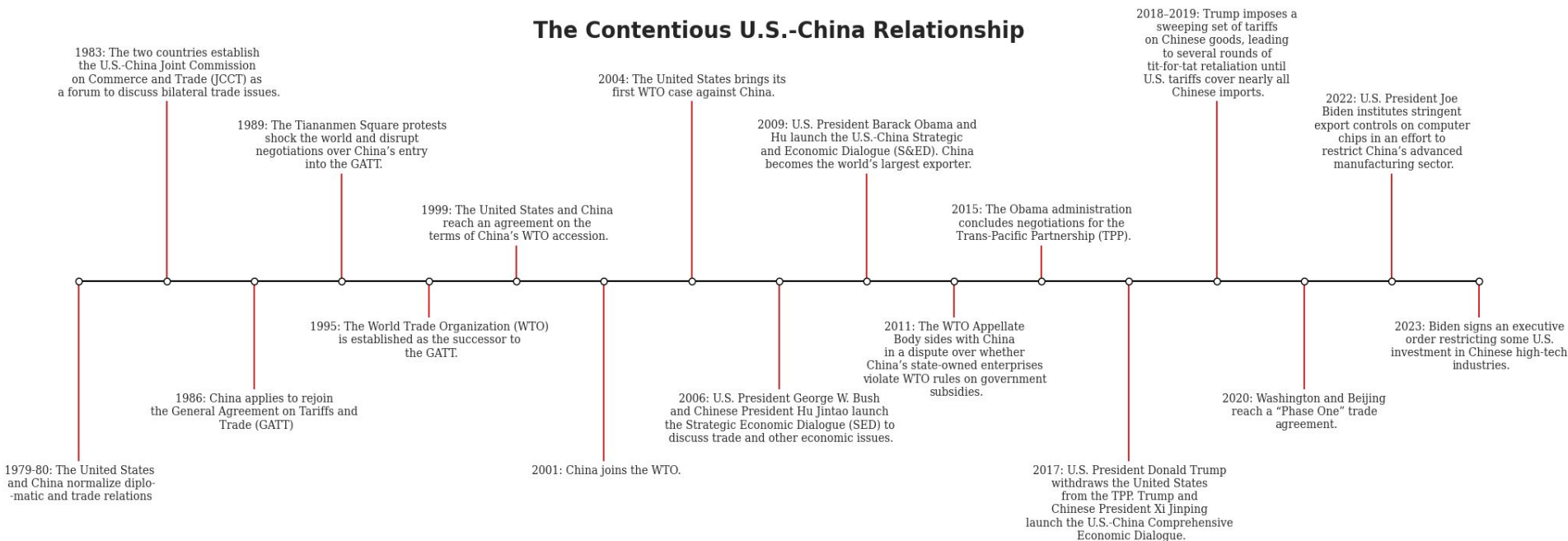
Percentage of Critical Minerals That Are Imported by the U.S. from Primary Source Countries

A Sizable Proportion of Critical Minerals are Imported From China



Since China Is The Primary Source Of Most Of These Minerals And Is A Competitor Country So What Kind Of Relationship Do We Have With China?

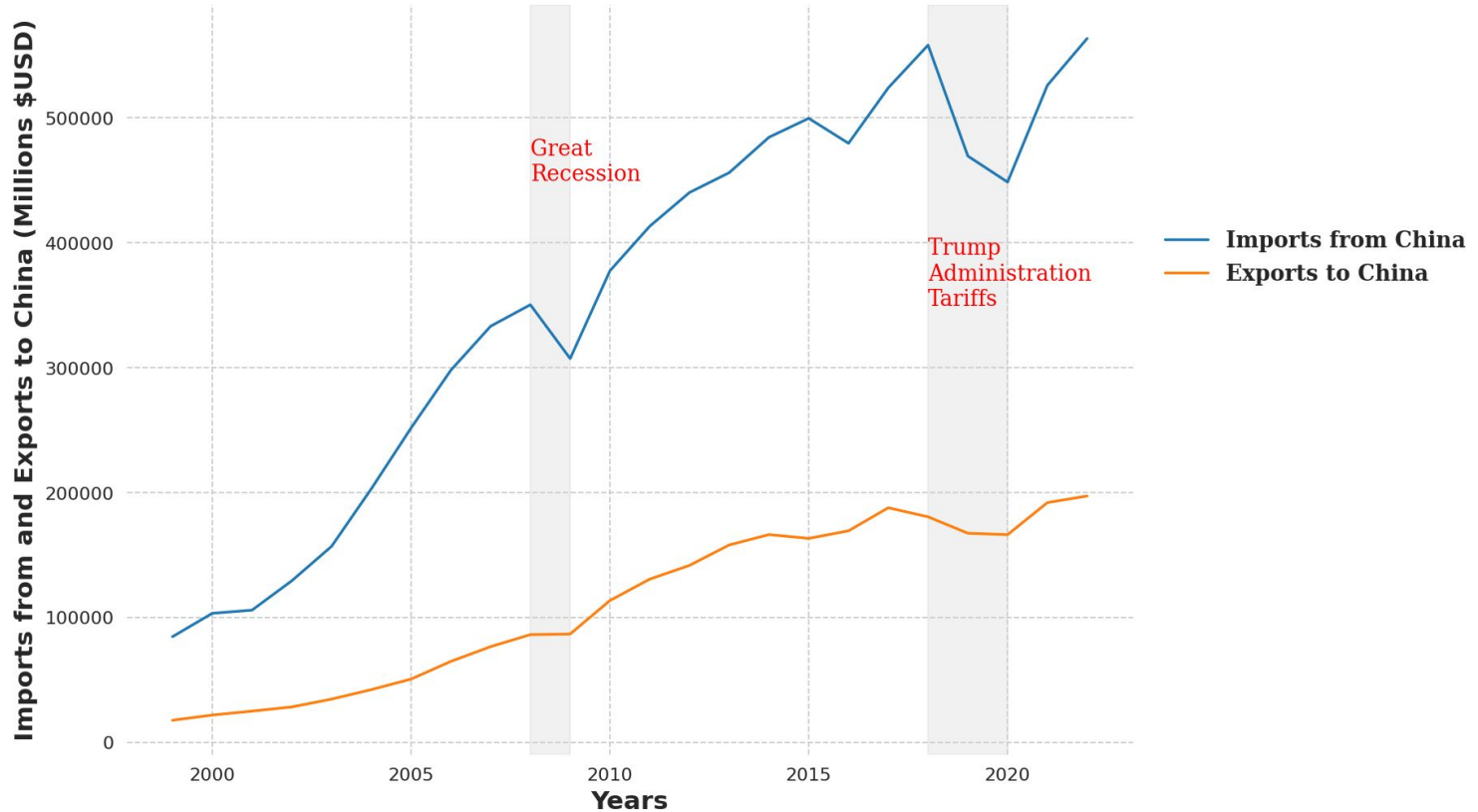
The Contentious U.S.-China Relationship



Despite Having A Contentious Relationship, U.S-China Trade Is On The Rise

U.S. Imports from and Exports to China since 1999

U.S. Imports from China Have Vastly Outpaced U.S. Exports to China Since 1999



Since U.S is the Biggest Importer of China's Export, One Could Conclude China As A Secure Source

Since Both Economies are Vastly Dependent on Trade among Each Other

Country Importers of Goods from China in 2022 (Billions \$USD)

The U.S. is the Largest Importer of Goods from China

('Hong Kong', 297.54)	('Singapore', 81.17)	('Russia', 76.12)	('Brazil', 61.97)	
	('United Kingdom', 81.54)	('Mexico', 77.53)	('Indonesia', 71.32)	('Philippines', 64.68)
('United States', 582.76)	('Malaysia', 93.71)	('Australia', 78.83)		('Thailand', 78.48)
	('India', 118.5)	('Netherlands', 117.73)	('Germany', 116.23)	
	('Japan', 172.93)		('South Korea', 162.62)	

References:

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