

# Power shifts and geopolitical disruption

## *Navigating risk, opportunity, and leadership in a changing world*

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University of Piraeus



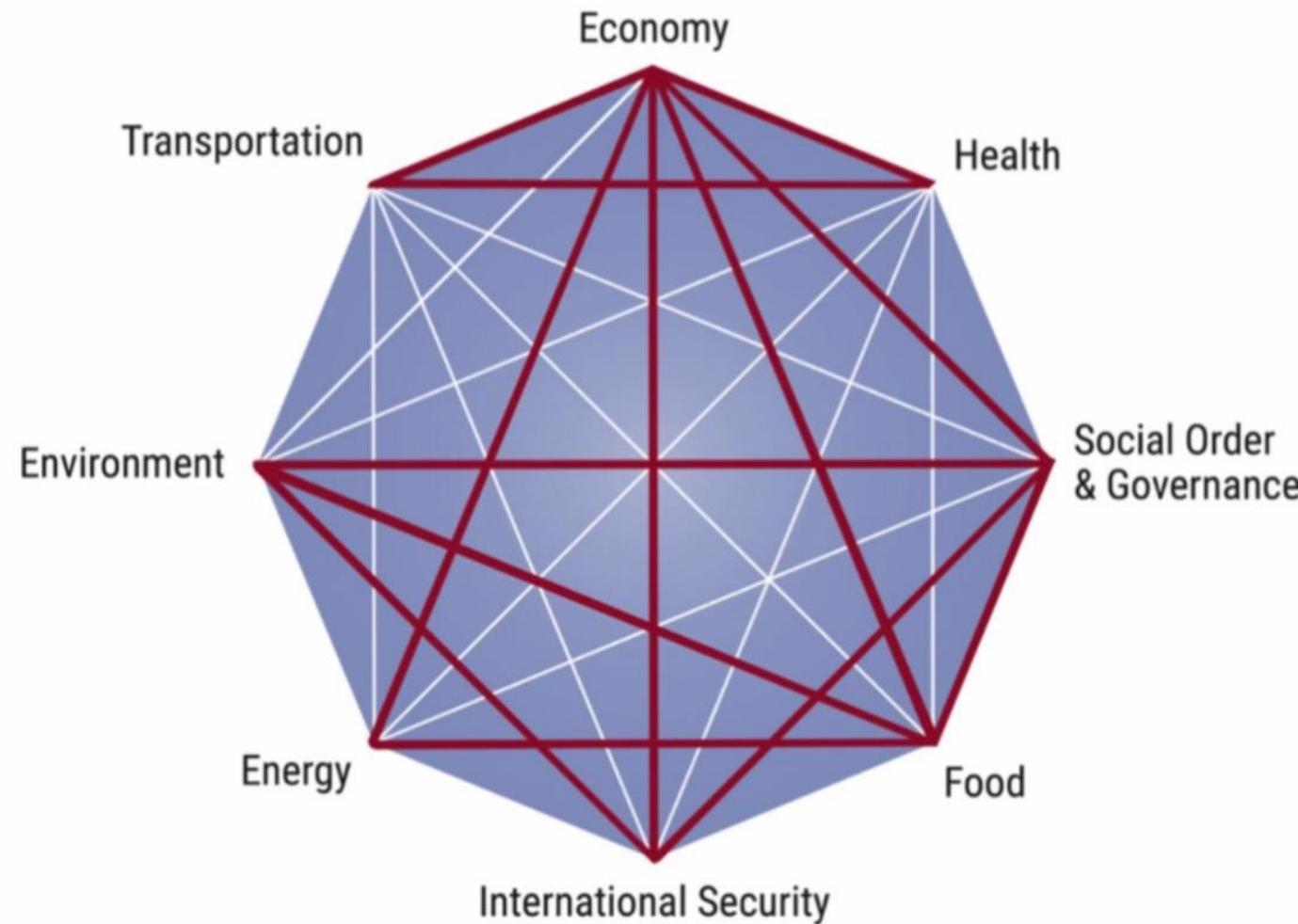
# THE BIG PICTURE: two concurrent power shifts

- **Power transition from unipolarity to bipolarity:** the relative rise of China and the relative decline of the US have created **bipolar dynamics** that heavily shape the global strategic landscape (Cold War 2.0)
- **Power diffusion (devolution)** has created a **polycentric global order** where **multiple regional centers of power** simultaneously exert influence across different domains of global affairs. This means the emergence of a more **complex, fragmented, and multi-layered world**.

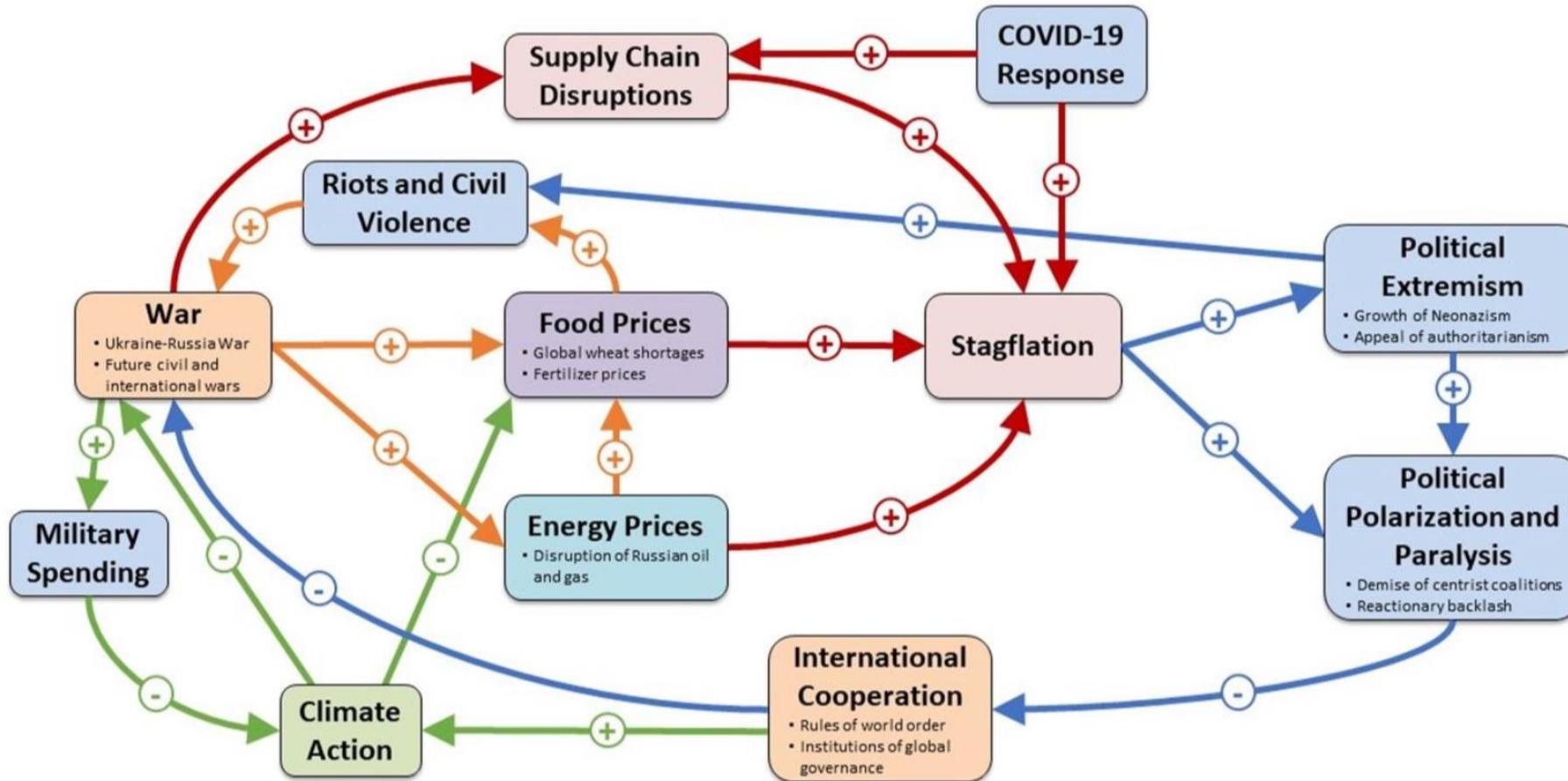
# A Hybrid International System

- The current order reflects a **hybrid configuration**:
- **Structurally polycentric**, with decentralized power distribution.
- **Functionally bipolar**, with intense U.S.–China rivalry
- The international system is **in transition**—moving from a bipolarity to multipolarity, but still shaped by **a bipolar logic**.

# Complexity



# Complexity in action



# polycrisis

[poli-krai-sis] *noun*

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the simultaneous occurrence of  
several catastrophic events

# POLYCRISIS

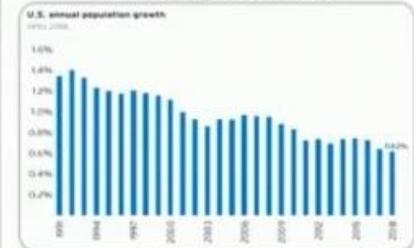
Low Growth



High Debt



Demographic Stagnation



Political Polarization



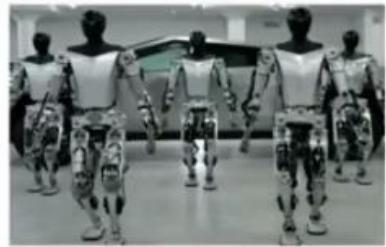
Economic Protectionism



High Interest Rates



Tech Disruption



Geopolitical Tension



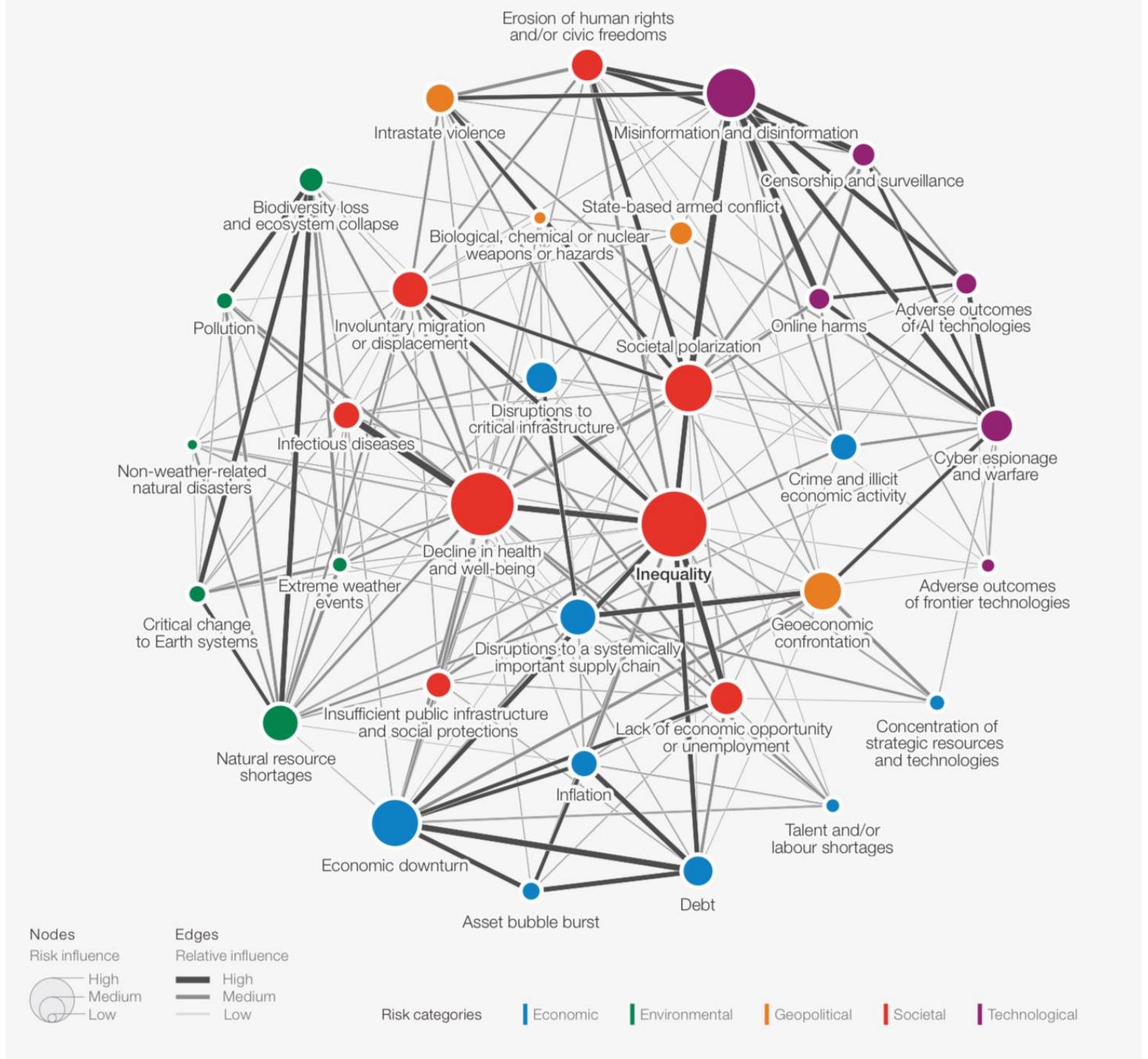
Climate Volatility



Social Unrest

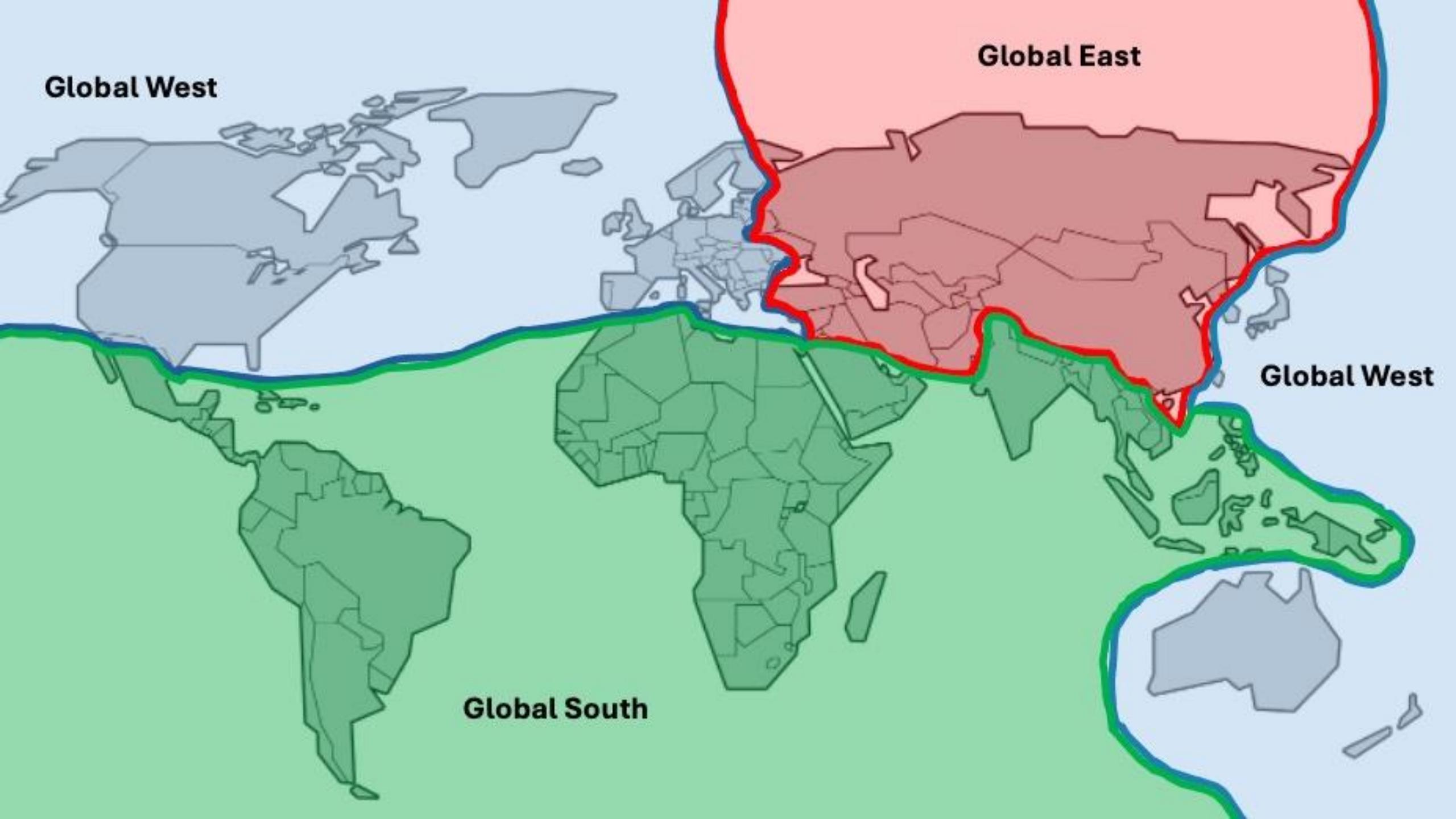


# GLOBAL RISKS



# Evolving Global Framework

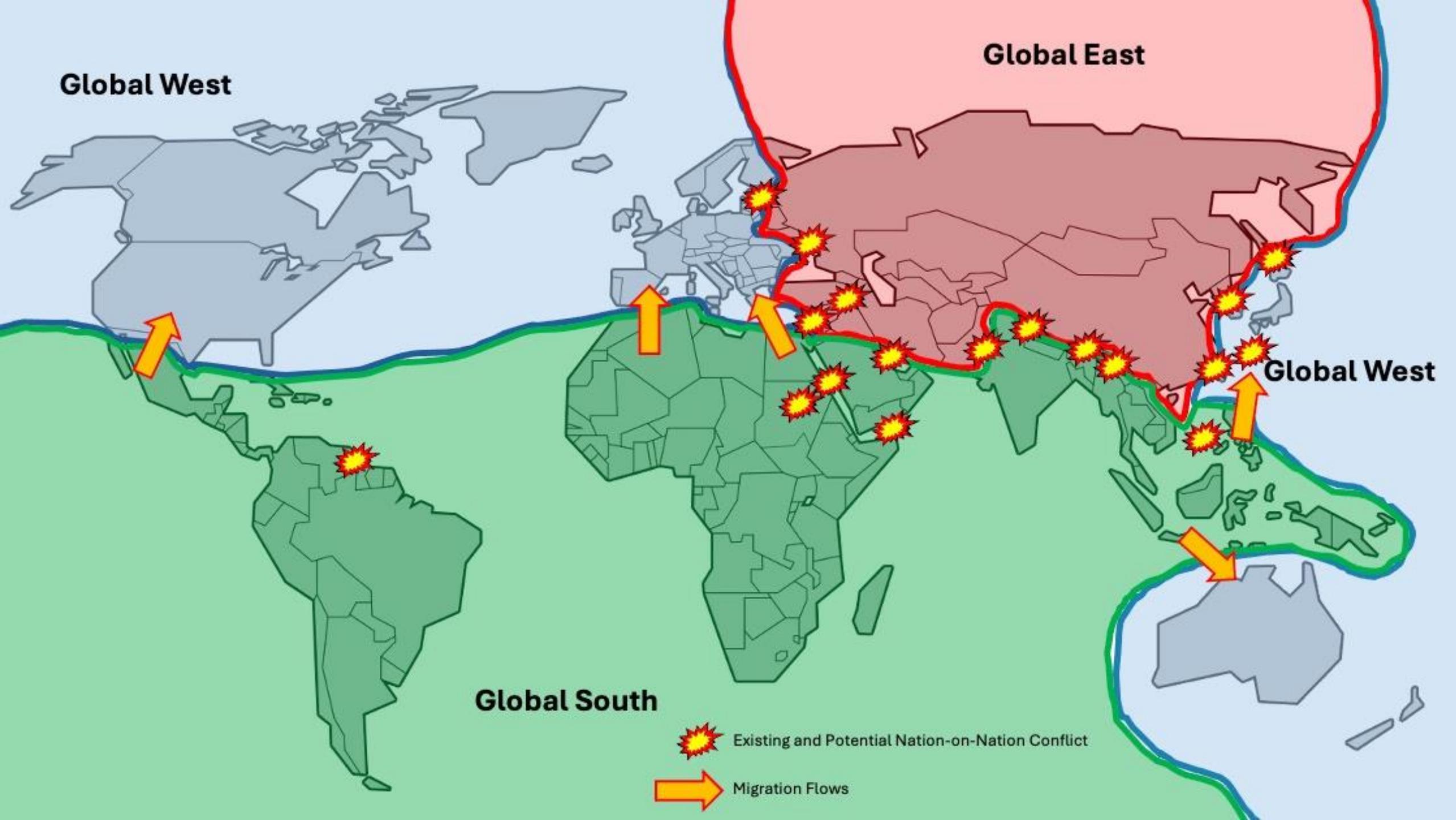
Bipolar Cold War	Unipolar Moment	Fragmented Globalization
U.S. and allies  Soviet Union and allies	U.S.  Globalization	2+2+ (two major powers: China and the U.S.  two secondary powers: Russia and Europe)  New Cold War



# Competition shifts from Central Europe to Southeast Asia, from Land to the Sea

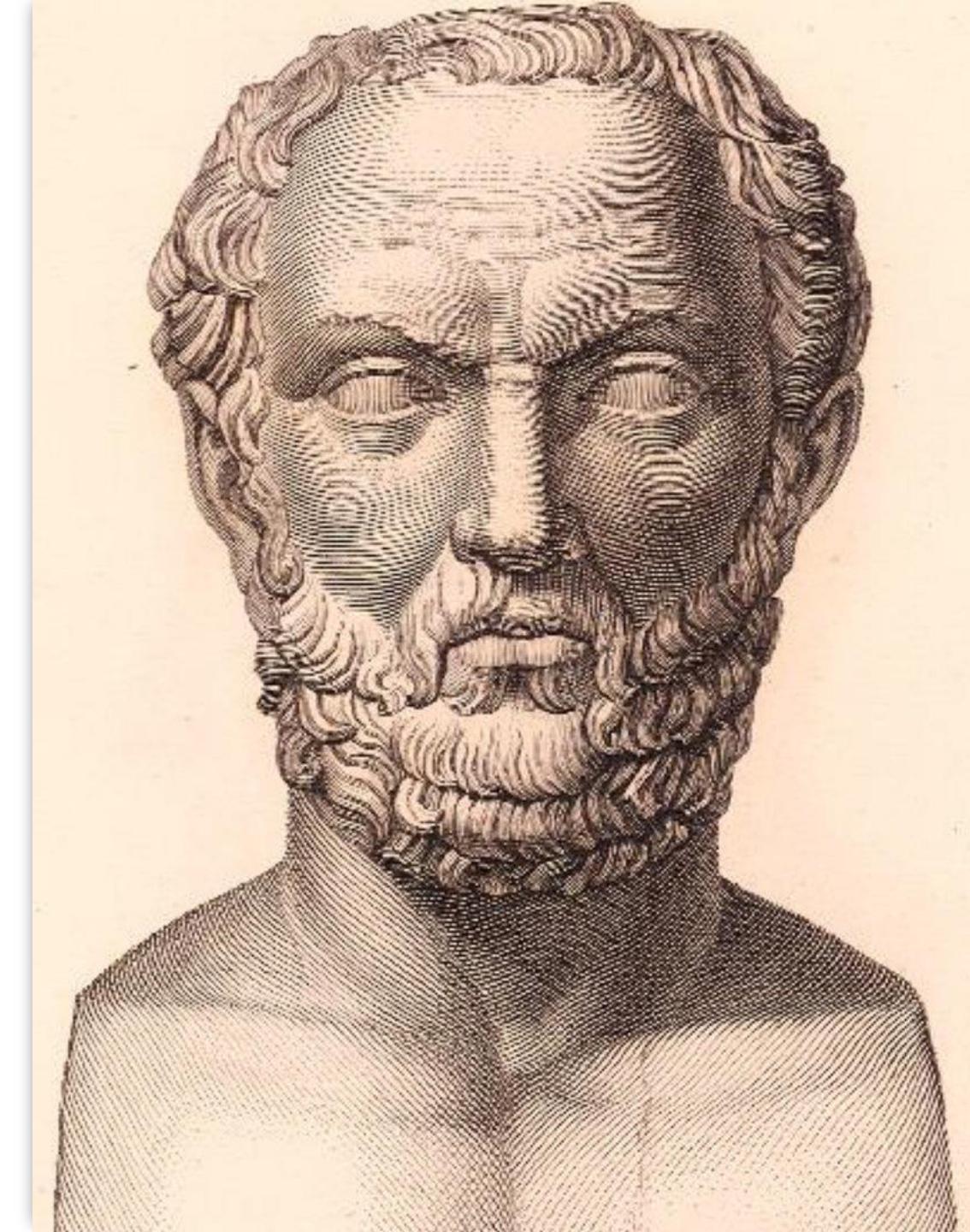
## New Cold War vs Old Cold War

- Similarities
  - Geopolitical competition for supremacy
  - Arms race (nuclear, space, cyber, AI)
  - Economic war
  - Intelligence war
  - Political warfare
  - Ideological struggle
  - Tech competition
  - Regional flashpoints
- **Differences**
  - Much greater economic interdependence
  - No rigid alliance blocks



# Thucydides Trap

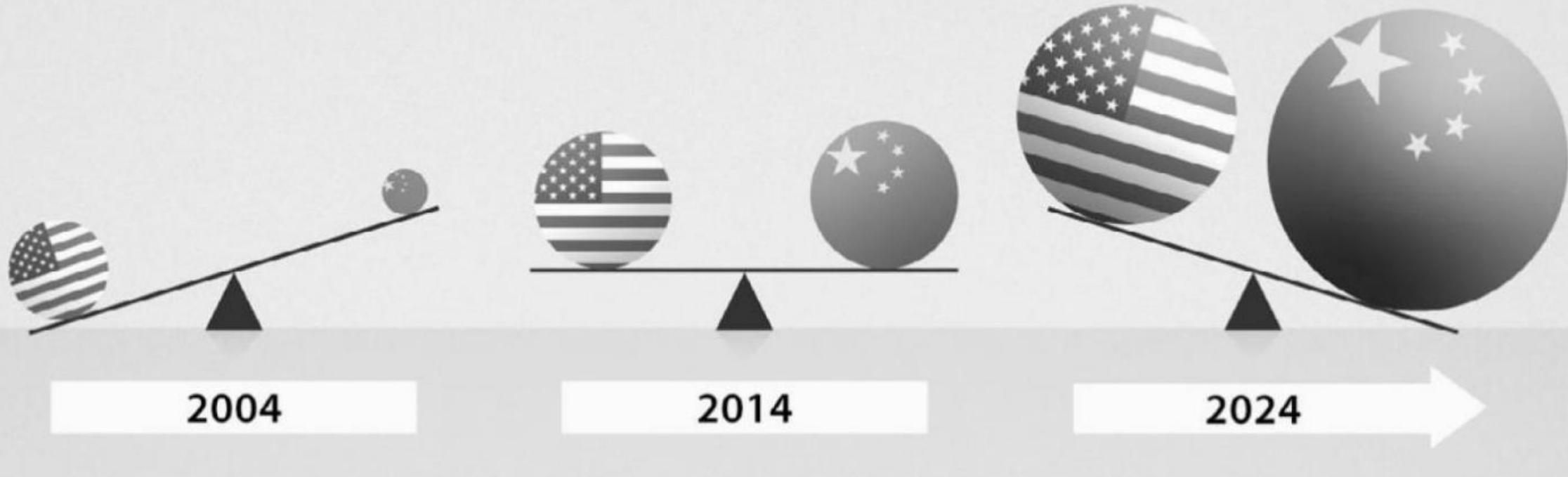
A term coined to describe the instability resulting from systemic power transition, a tendency towards war when a rising power threatens to displace an existing dominant power.



# The Rise Of China

China's rise is **the most consequential geopolitical transformation of the 21st century**. Once viewed as a manufacturing hub or development story, China is now emerging as **a global power**—economic, demographic, technological, and strategic—and it is reshaping the very architecture of the international system.

## Who's rebalancing whom?



GDP (PPP), in billions of dollars

	2004	2014	2024 est.
China	5,760	18,228	35,596
US	12,275	17,393	25,093

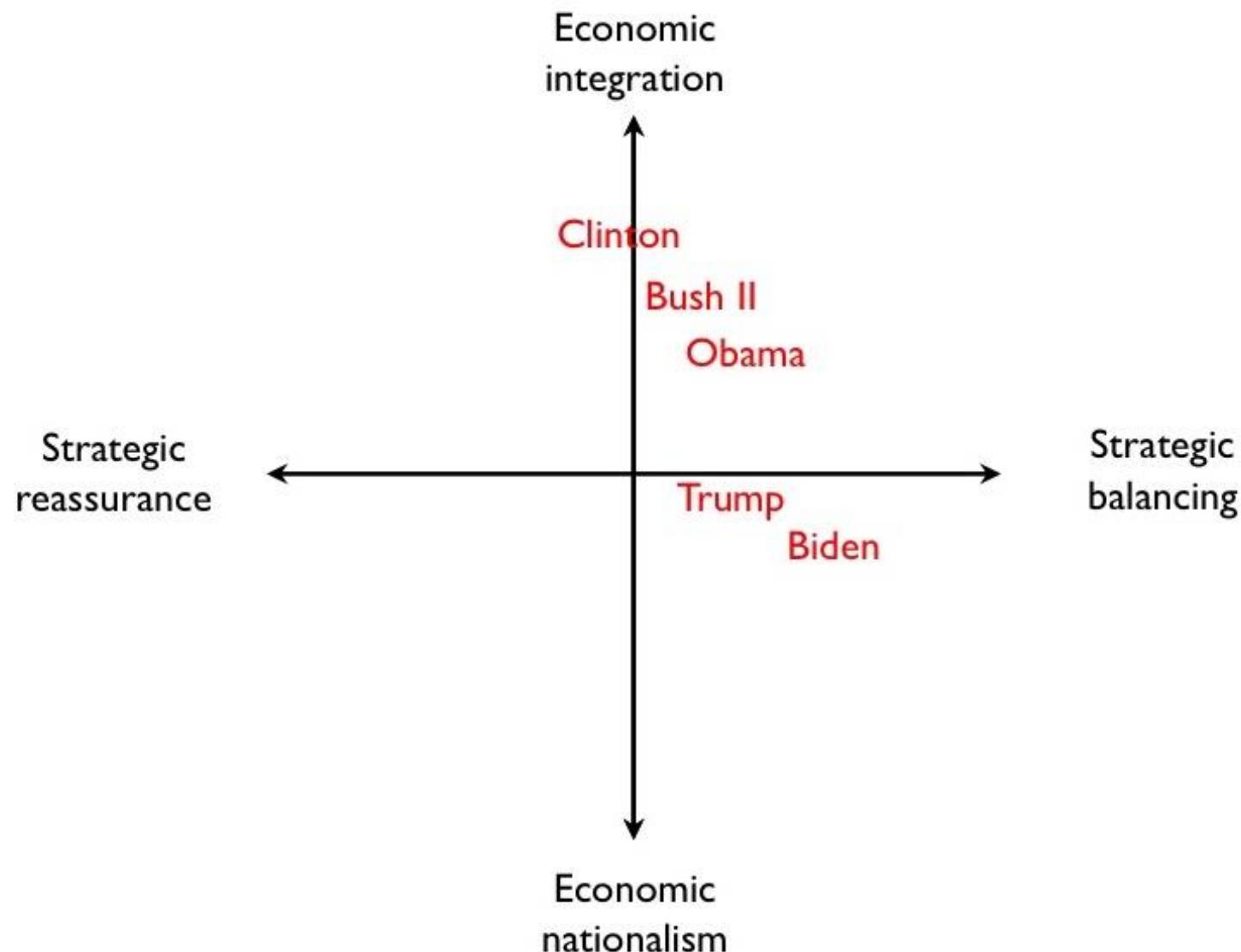
Source: IMF, Economist Intelligence Unit

Nº	Period	Ruling Power	Rising Power	Domain	Result
1	Late 15 <sup>th</sup> century	 <b>Portugal</b>	 <b>Spain</b>	Global empire and trade	<b>No war</b>
2	First half of 16 <sup>th</sup> century	 <b>France</b>	 <b>Hapsburgs</b>	Land power in western Europe	<b>War</b>
3	16 <sup>th</sup> and 17 <sup>th</sup> centuries	 <b>Hapsburgs</b>	 <b>Ottoman Empire</b>	Land power in central and eastern Europe, sea power in the Mediterranean	<b>War</b>
4	First half of 17 <sup>th</sup> century	 <b>Hapsburgs</b>	 <b>Sweden</b>	Land and sea power in northern Europe	<b>War</b>
5	Mid-to-late 17 <sup>th</sup> century	 <b>Dutch Republic</b>	 <b>England</b>	Global empire, sea power, and trade	<b>War</b>
6	Late 17 <sup>th</sup> to mid-18 <sup>th</sup> centuries	 <b>France</b>	 <b>Great Britain</b>	Global empire and European land power	<b>War</b>
7	Late 18 <sup>th</sup> and early 19 <sup>th</sup> centuries	 <b>United Kingdom</b>	 <b>France</b>	Land and sea power in Europe	<b>War</b>
8	Mid-19 <sup>th</sup> century	 <b>France and United Kingdom</b>	 <b>Russia</b>	Global empire, influence in Central Asia and eastern Mediterranean	<b>War</b>
9	Mid-19 <sup>th</sup> century	 <b>France</b>	 <b>Germany</b>	Land power in Europe	<b>War</b>
10	Late 19 <sup>th</sup> and early 20 <sup>th</sup> centuries	 <b>China and Russia</b>	 <b>Japan</b>	Land and sea power in East Asia	<b>War</b>
11	Early-20 <sup>th</sup> century	 <b>United Kingdom</b>	 <b>United States</b>	Global economic dominance and naval supremacy in the Western Hemisphere	<b>No war</b>
12	Early-20 <sup>th</sup> century	 <b>United Kingdom</b> supported by France, Russia	 <b>Germany</b>	Land power in Europe and global sea power	<b>War</b>
13	Mid-20 <sup>th</sup> century	 <b>Soviet Union, France, UK</b>	 <b>Germany</b>	Land and sea power in Europe	<b>War</b>
14	Mid-20 <sup>th</sup> century	 <b>United States</b>	 <b>Japan</b>	Sea power and influence in the Asia-Pacific region	<b>War</b>

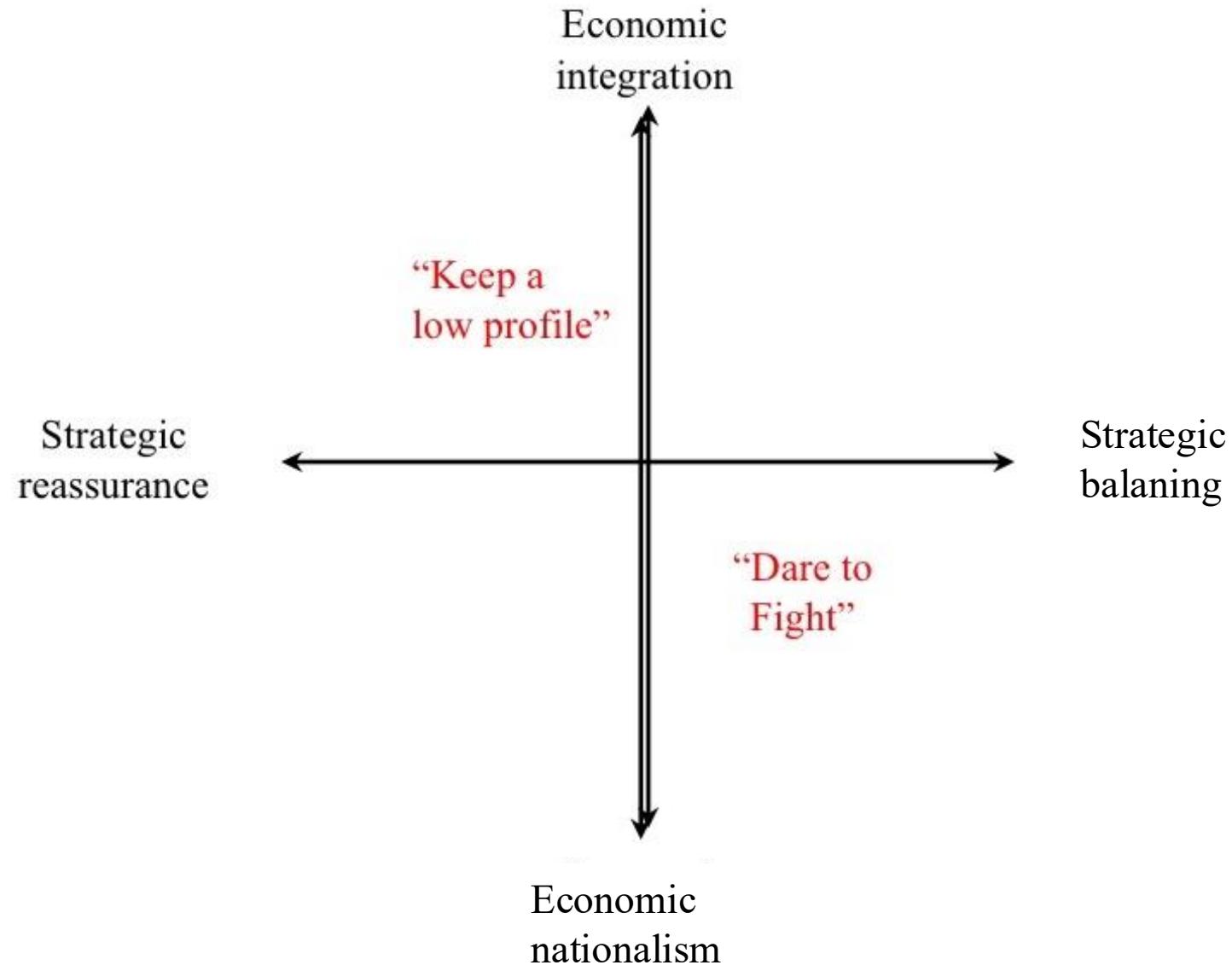
# US grand strategy matrix

	<i>Deep</i>	<i>Soft</i>
<i>Engagement</i>	Liberal hegemony	Selective engagement
<i>Disengagement</i>	Isolation	Restraint/Offshore balancing

## US responses to China's rise by president



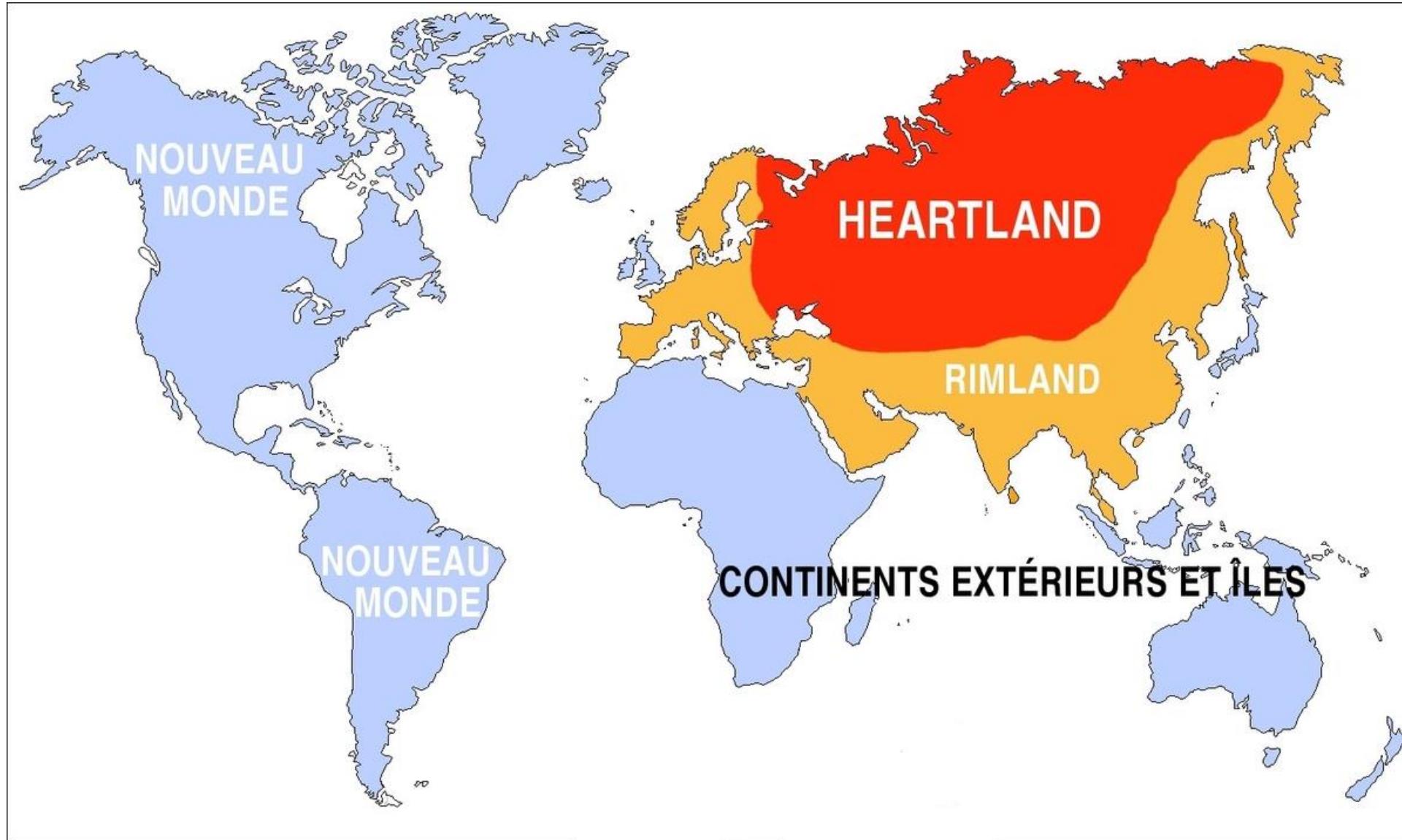
## China's responses to American hegemony



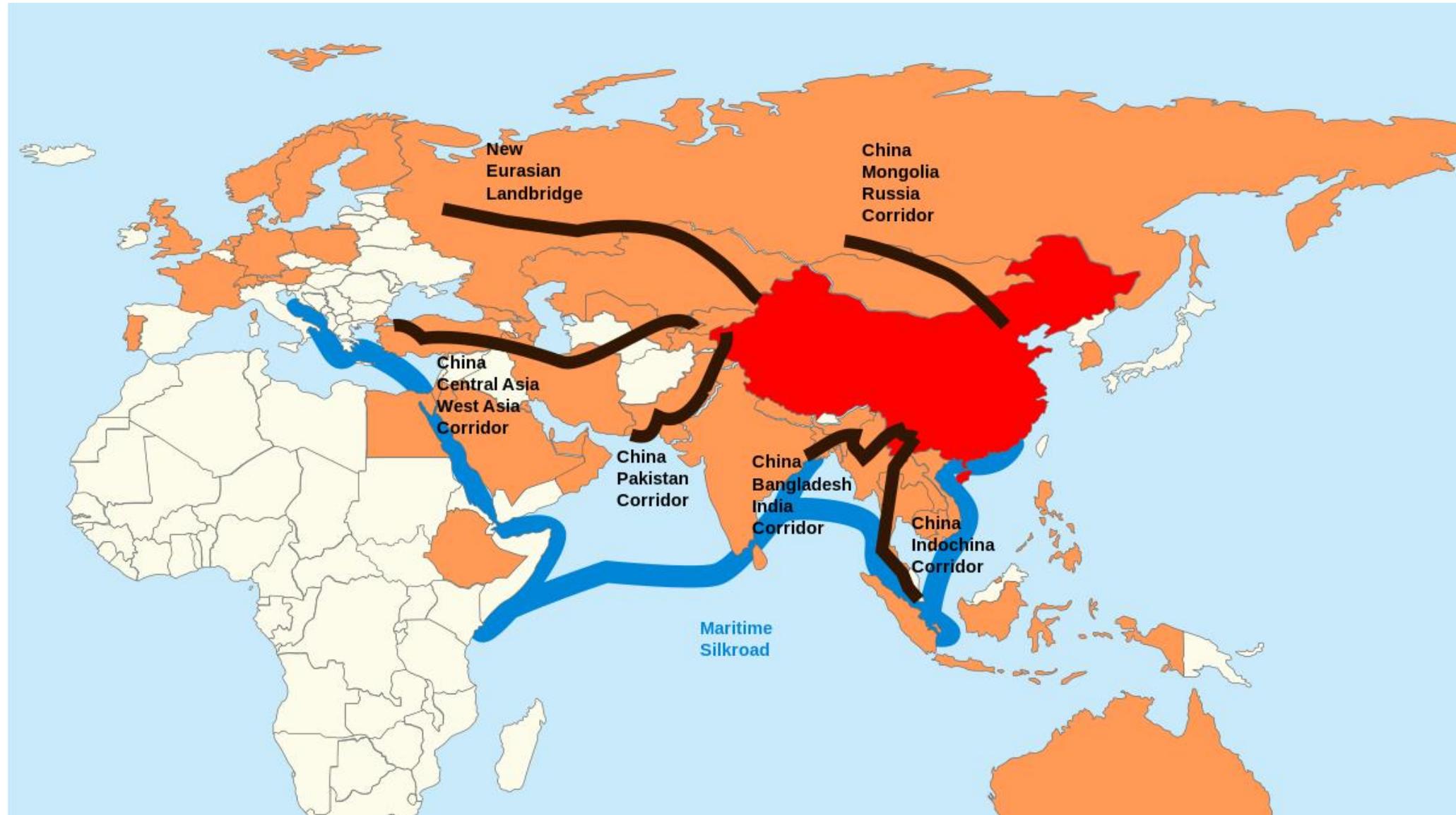
# No limits Friendship



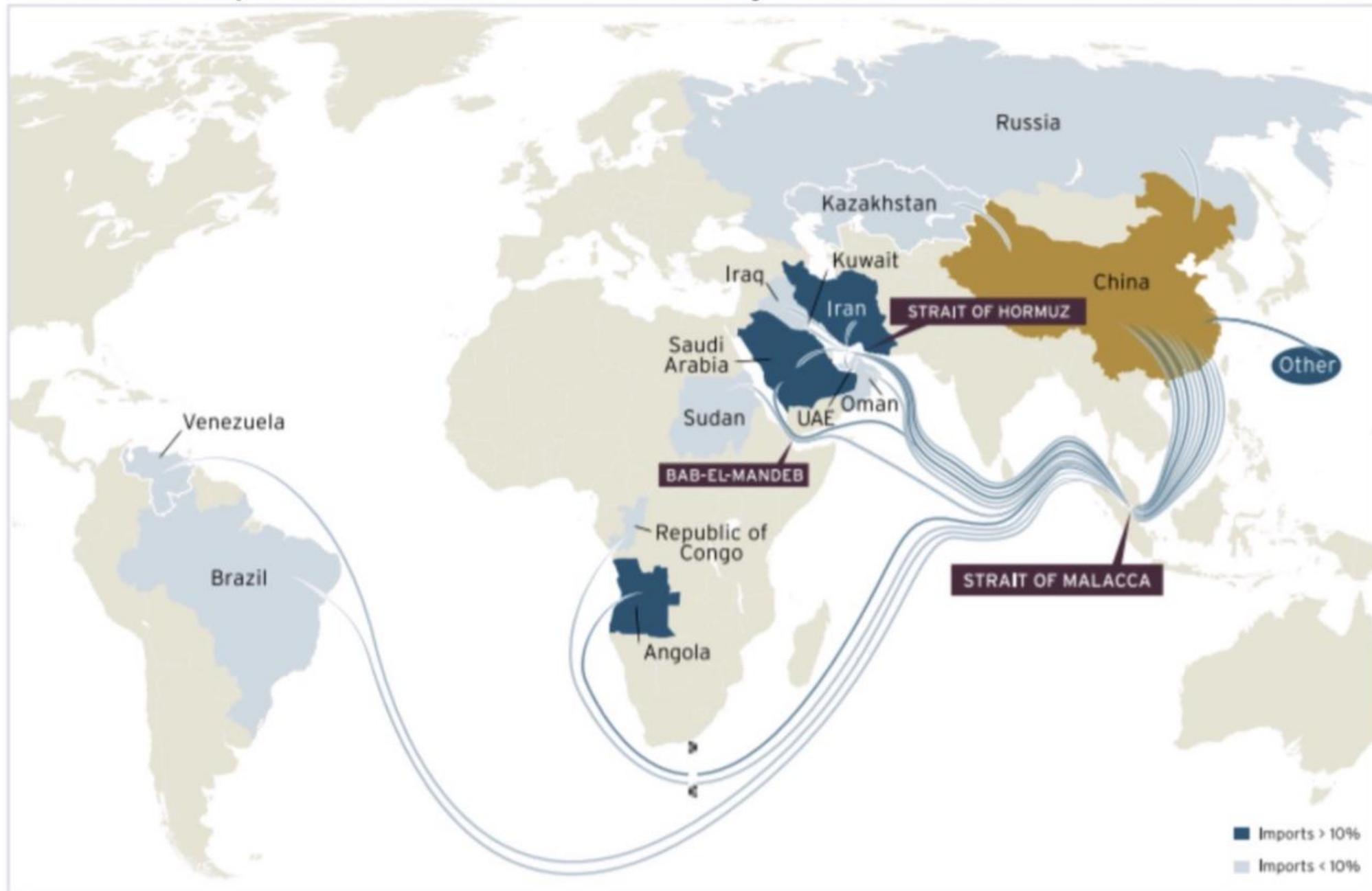
# Mackinder's Nightmare: The Unification of Eurasia

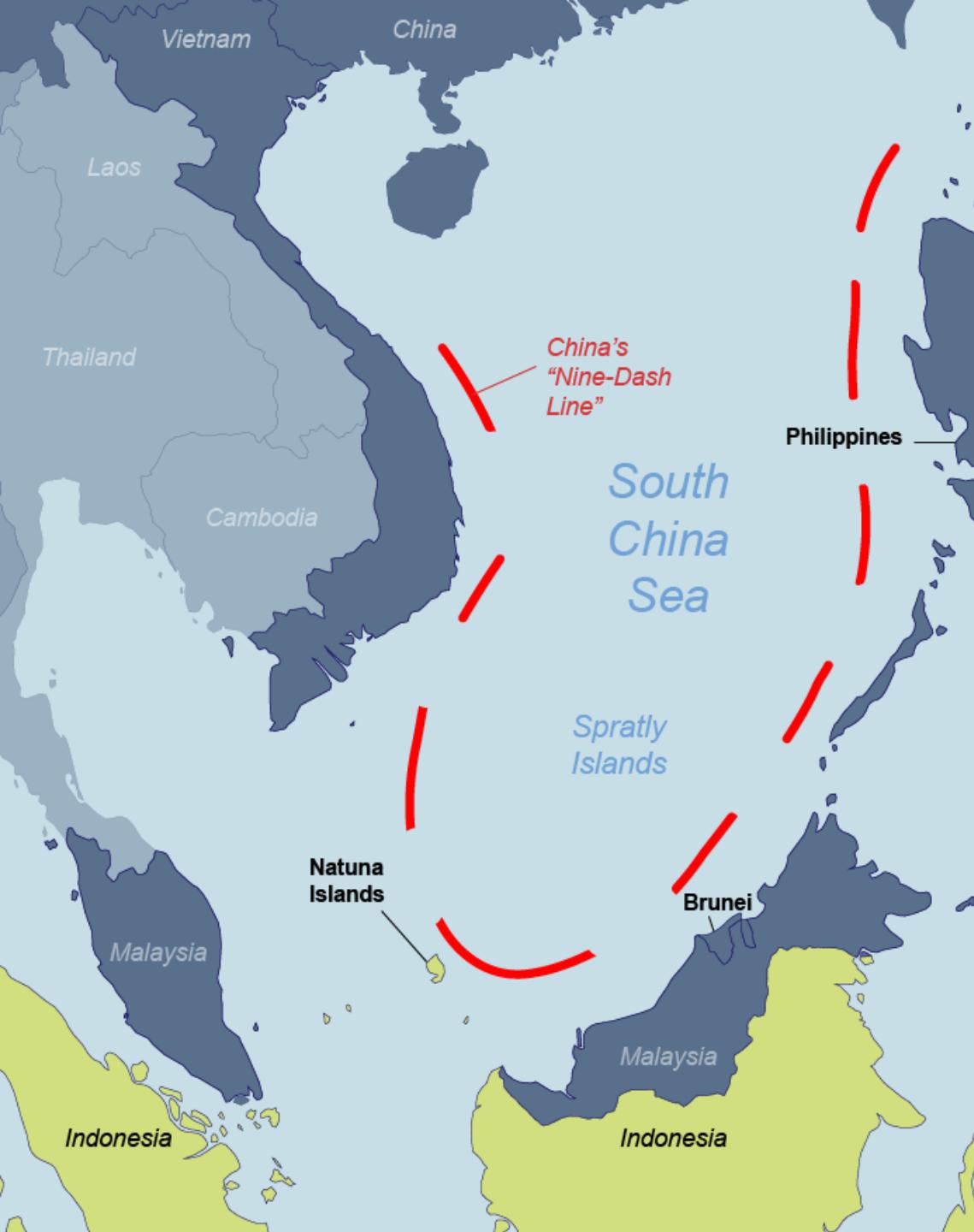


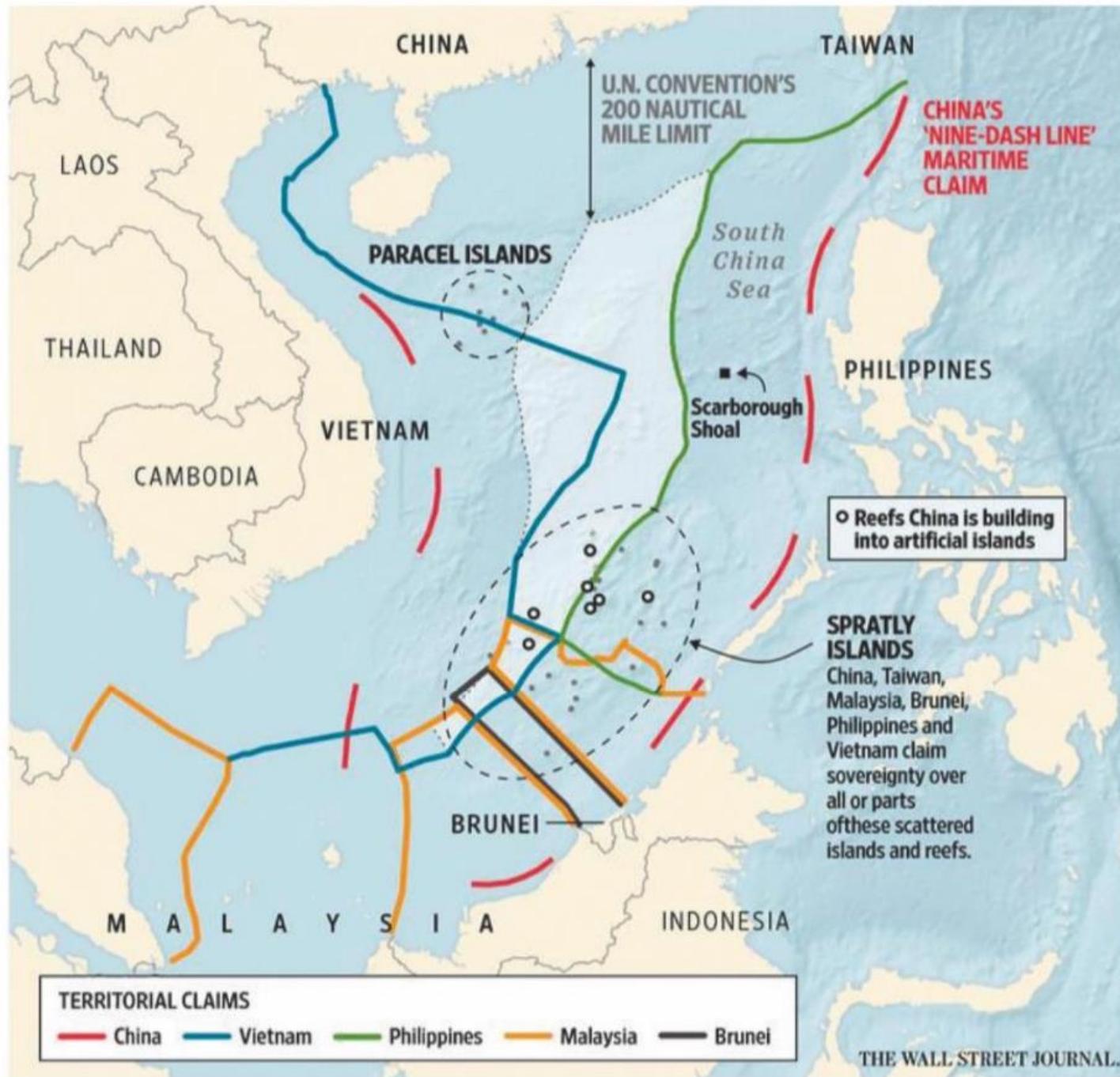
# The New Silk Road: BRI

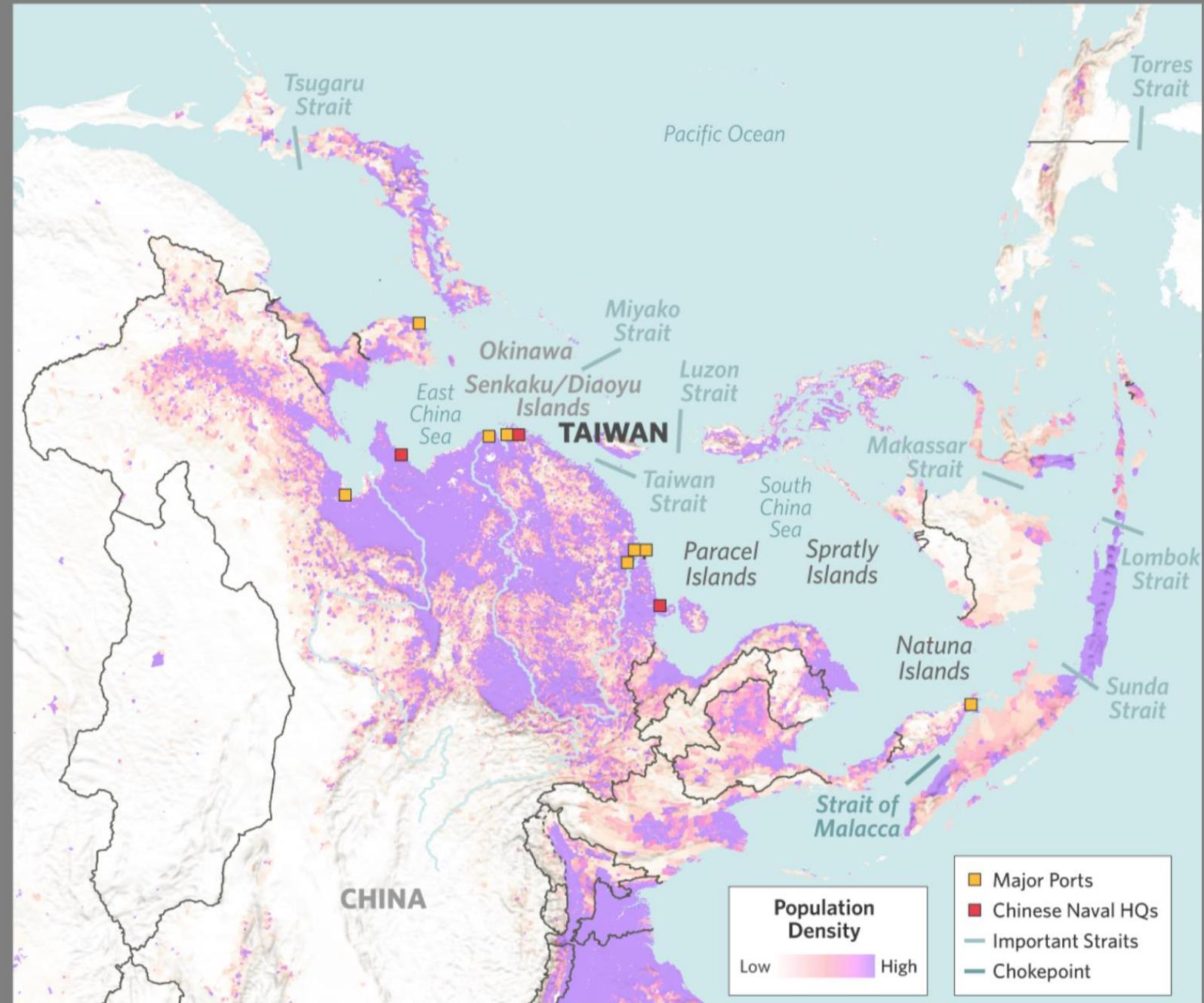


# China imports: Trade vulnerability and the Malacca dilemma









## Chokepoints and U.S. Encroachment



# China's Military Drills Near Taiwan

October  
2024

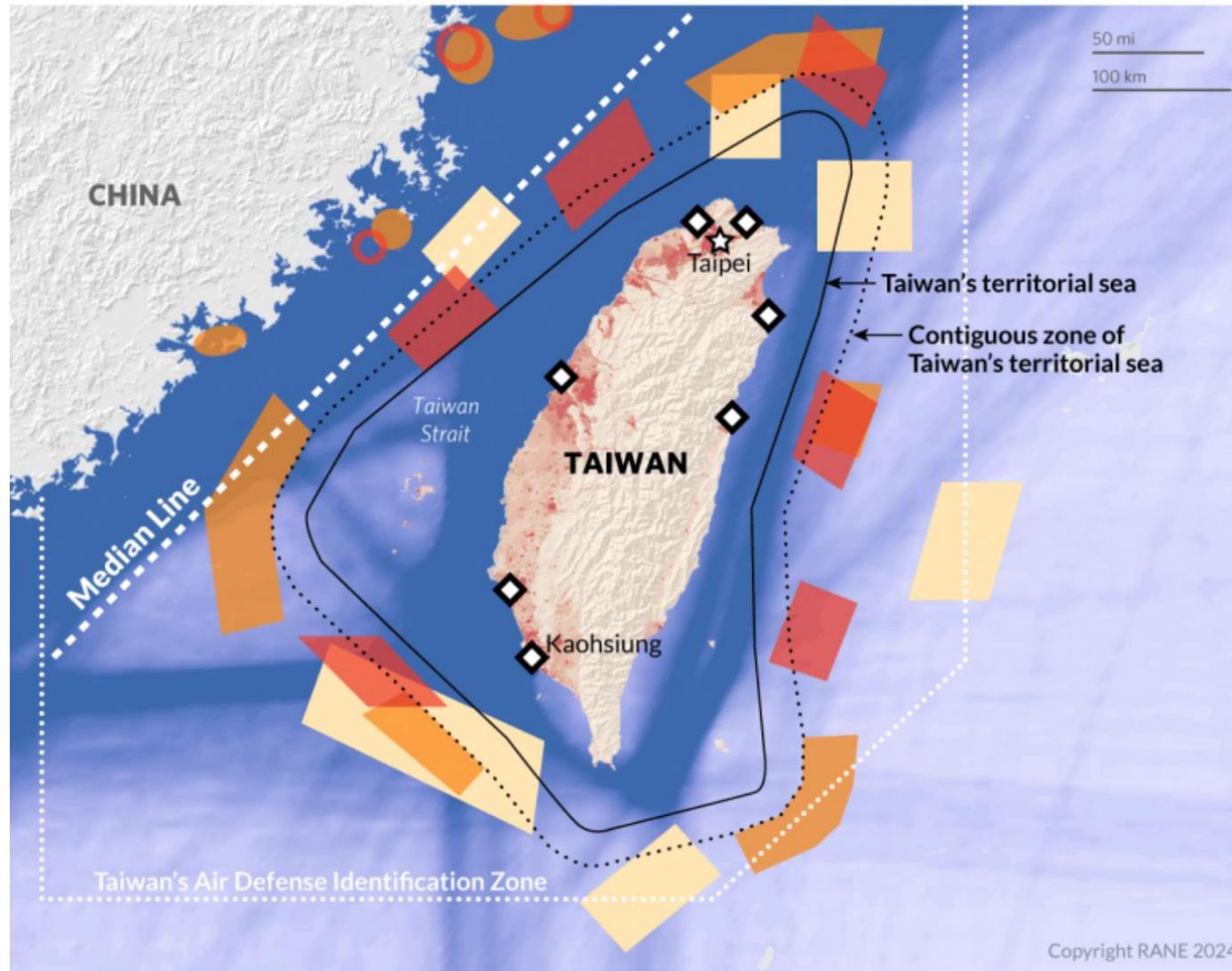
May  
2024

August  
2022

Taiwan's population density

Shipping lane density

Major ports



# Geo-economic antagonism

<b>RESHORING</b>	Transferring operations back to its primary country of operations, reducing exposure to outside risk (such as the disruption of supply chains by geopolitical events) and choosing local businesses with whom to partner.
<b>NEARSHORING</b>	Relocating business operations to a nearby country, often with a shared border, with the aim of ensuring faster speed to market and quicker transit from manufacturers to customers.
<b>OFFSHORING</b>	Relocating existing operations to a different country, usually with the goal of reducing labour or manufacturing costs and/ or ensuring the ready provision of certain skills and raw materials.
<b>FRIENDSHORING</b>	Rerouting supply chains to countries that are political or economic allies, where these countries may be perceived as politically and economically safe or low-risk to avoid disruption to the flow of business.

# Geopolitical Shifts Likely To Re-Shape Global Supply Chains

- Major economies will seek to source essential products closer to home (near shoring) or from geopolitical allies (friend shoring)
- Geopolitical reliability of trade partners will become more important

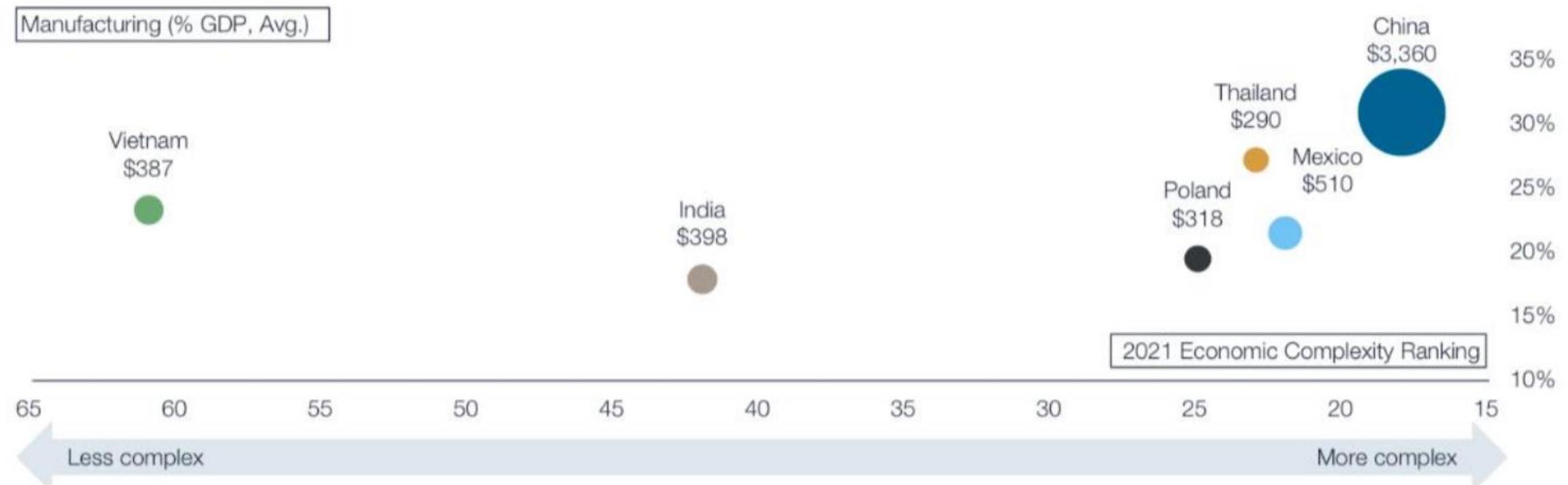
## Three Main Options, All Of Which Will Take Years To Implement

### Supply Chain Diversification Options

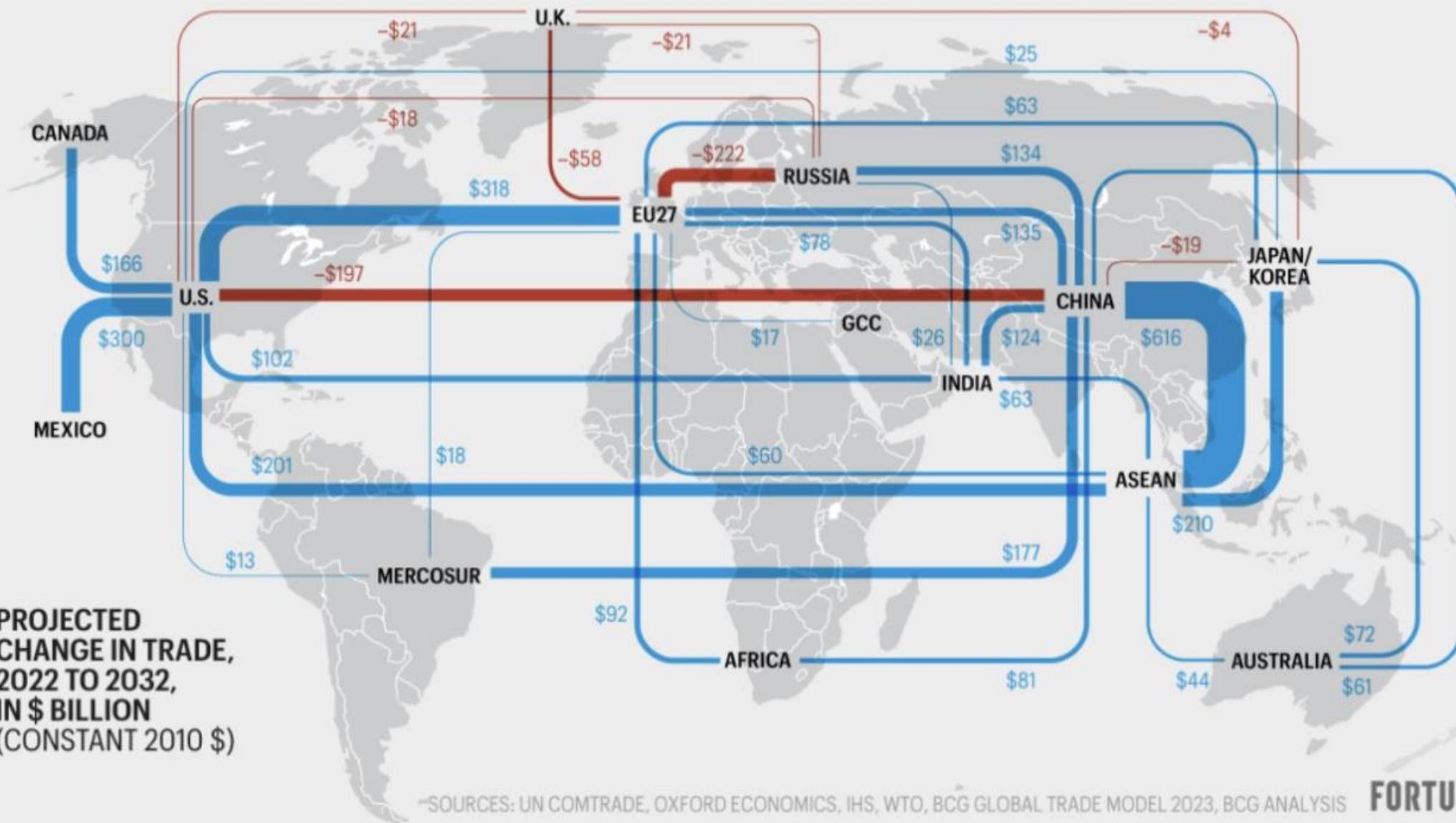
Type	Description	Impact
China Plus One	<ul style="list-style-type: none"><li>• Firms keep a large portion of their manufacturing in China but develop a second supplier outside of the country, often in the same region (e.g. Vietnam, Thailand)</li></ul>	<ul style="list-style-type: none"><li>• Improves supply chain security by removing the risk of a single point of failure while maintaining access to the Chinese manufacturing capacity and consumer market. This is usually the cheapest option</li></ul>
Near/Friend Shoring	<ul style="list-style-type: none"><li>• Firms bring business operations to the same region as the primary consumer base (e.g. Mexico, CEE) or to friendly nations</li></ul>	<ul style="list-style-type: none"><li>• Reduces transit time and/or helps avoid geopolitical risk. In some sectors (e.g., autos and heavy manufacturing) this option allows companies to take advantage of better agglomeration effects</li></ul>
Reshoring	<ul style="list-style-type: none"><li>• Firms move manufacturing back to their home market</li></ul>	<ul style="list-style-type: none"><li>• Usually too costly unless there is significant investment in automation or government support, but it substantially cuts logistics and geopolitical risk</li></ul>

# The centrality of China in manufacturing supply chains

Figure 4: Economic Complexity (Ranking, X Axis), Manufacturing as % of GDP (%, Y Axis), and Total Manufacturing Exports (\$bn, Size of Bubble)<sup>13</sup>



# How trade flows will be reshaped by 2032

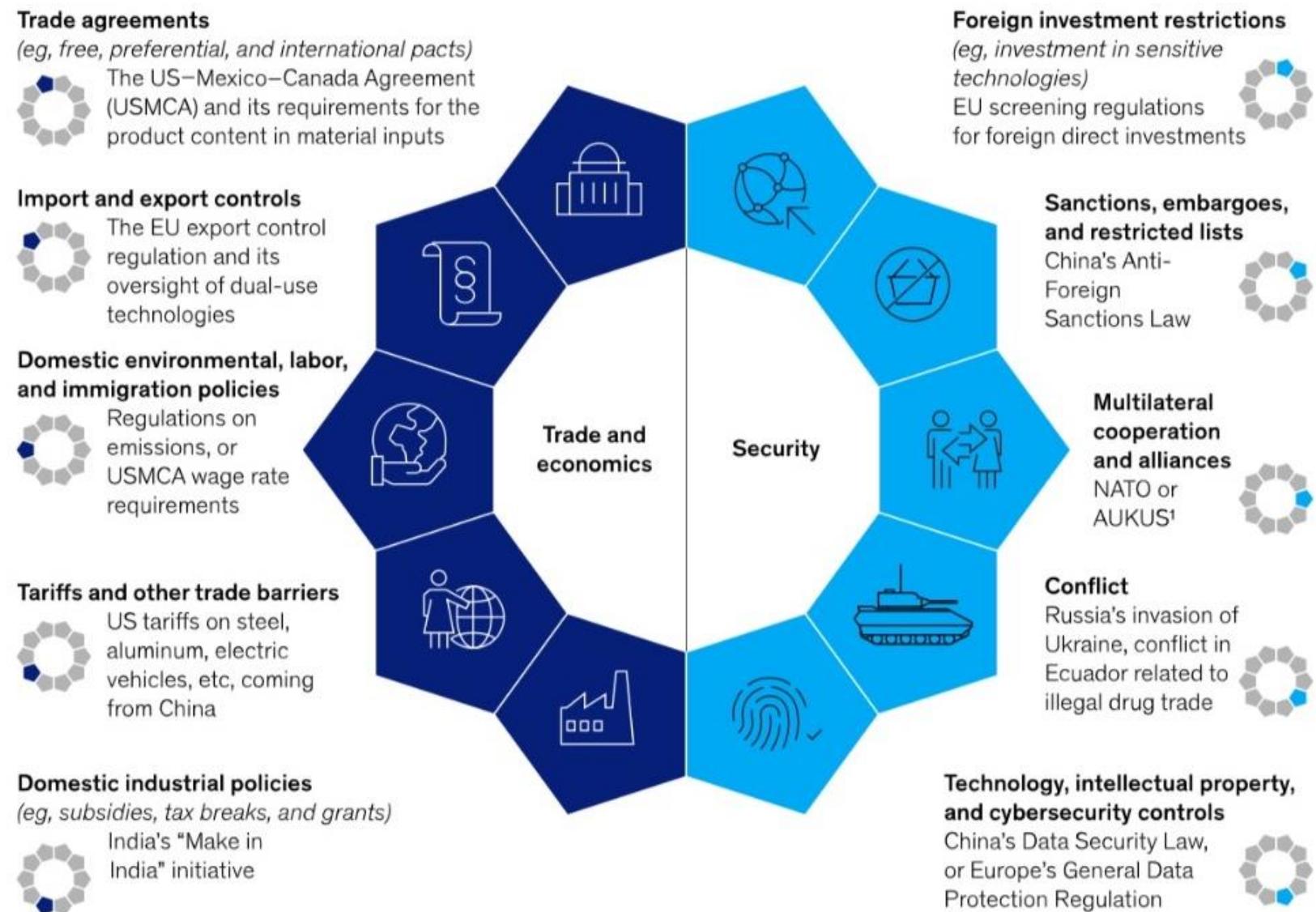


**PROJECTED  
CHANGE IN TRADE,  
2022 TO 2032,  
IN \$ BILLION  
(CONSTANT 2010 \$)**

SOURCES: UN COMTRADE, OXFORD ECONOMICS, IHS, WTO, BCG GLOBAL TRADE MODEL 2023, BCG ANALYSIS

# FORTUNE

# Geopolitical Shifts and Business Leadership



# SINO-AMERICAN STRATEGIC COMPETITION

- **Technological Supremacy**

- AI, semiconductors, quantum computing, and 5G
- Control of critical technology supply chains (rare earths, semiconductors)

- **Geo-economic Rivalry**

- Weaponization of finance (sanctions, SWIFT access, export controls)
- Competing frameworks: U.S.-led “friendshoring” vs. China’s Belt and Road Initiative (BRI)
- Currency competition, de-dollarization, reserve diversification.

- **Security Architecture**

- Indo-Pacific emerges as the central geopolitical battleground (e.g., AUKUS, Quad, Taiwan Strait tensions).
- China first strategy, proliferation of grey-zone tactics and proxy wars.

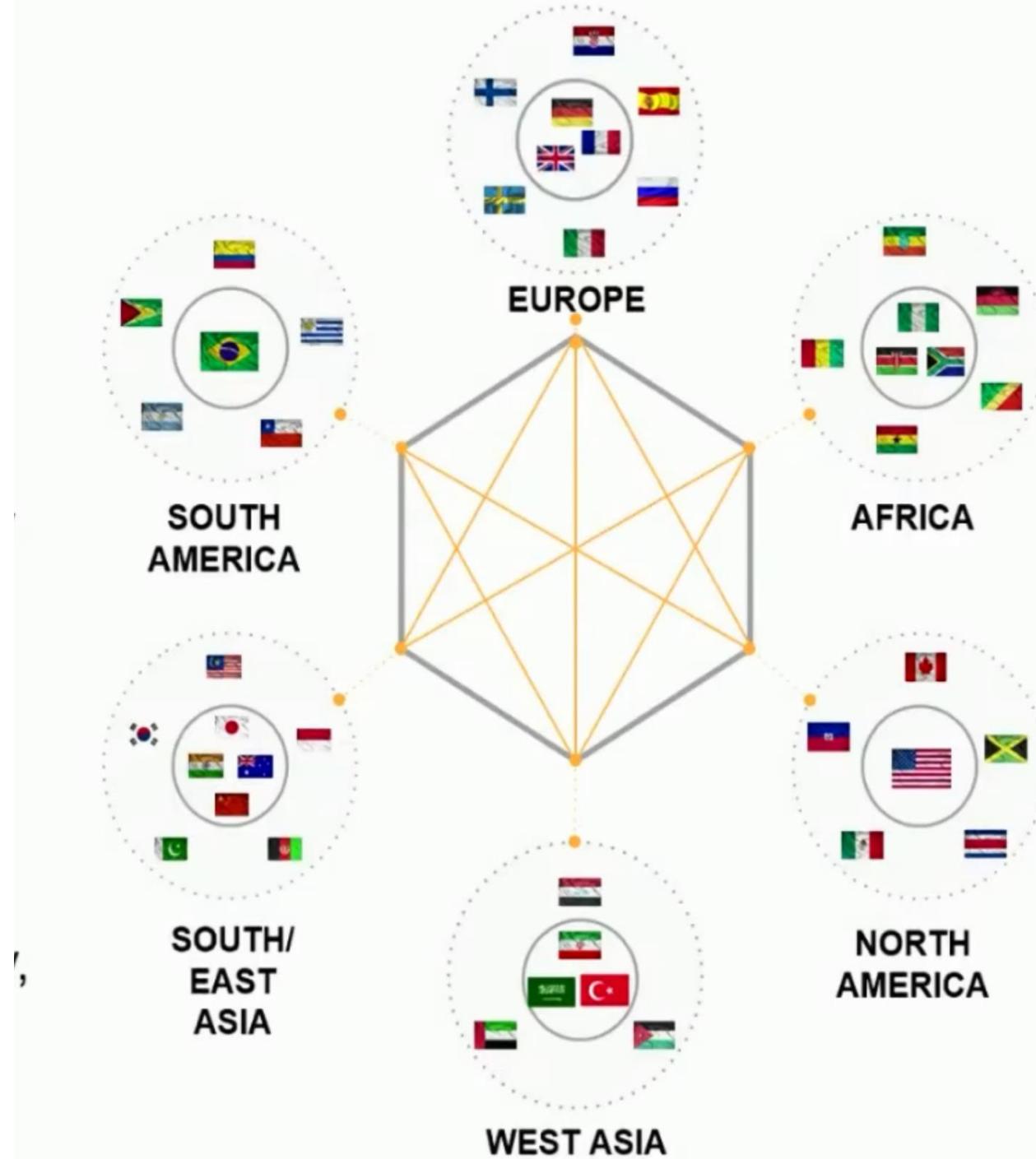


# Red Lines in Sino-American Relations

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- Abstain from cyberattacks targeting critical infrastructure
- Abstain from targeting space assets
- Avoid provocative military exercises, deployments, and maneuvers in the Taiwan Strait.
- Avoid changing the status quo in Taiwan

# Devolution: A Polycentric World



# Defining Characteristics of a Polycentric World

- **Multiple Power Centers**
  - Power is distributed across various **regional, functional, and civilizational actors** (U.S., China, EU, India, Russia, and rising middle powers). No single actor has the capacity to **dominate the system globally** across all dimensions.
- **Issue-Based Leadership**
  - Different actors lead in **different domains**,
  - Leadership is distributed by issue area.
- **Institutional Pluralism**
  - A web of new **multilateral institutions** such as BRICS, G7, SCO, ASEAN compete with traditional organisations UN, WTO, IMF.
- **Strategic Fluidity and Multi-Alignment**
  - States increasingly engage in **multi-alignment** rather than bloc allegiance. Coalitions are often **ad hoc, flexible, and transactional**—not permanent alliances.

# Geopolitical Risks of a Polycentric world

## 1. Absence of Hegemonic Stabilization

- No single actor has the **capacity or legitimacy to enforce order** (G-zero)
- Risk of **power vacuums** in fragile regions (Sahel, Caucasus, Indo-Pacific).
- Decreased effectiveness of global response mechanisms (UN paralysis)

## 2. Great Power Entanglements

- Increased probability of **interlocking crises and proxy conflicts**:
- U.S.–China tensions over Taiwan
- Russia–NATO standoff in Eastern Europe
- India–China competition in the Himalayas and Indian Ocean

# Geopolitical Risks of a Polycentric world

## 3. Competitive Multilateralism

- Rise of **rival blocs and parallel institutions:**
- BRICS vs. G7
- AIIB vs. World Bank
- SCO vs. NATO

## 4. Decentralized Conflict and Hybrid War

- Proliferation of **non-state actors, PMCs, cyber militias, and proxies.**
- Escalation through **grey-zone tactics, and cyber retaliation.**

# Emerging Wildcard Risks

- **AI-enabled escalation:** Algorithmic misjudgments and autonomous systems creating conflict loops.
- **Eco-conflicts:** Resource competition exacerbated by climate breakdown.

To sum up: A polycentric world is **less predictable** and **more volatile**.

# What is the Neo-Medievalism turn in Geopolitics?

**Neo-medievalism** refers to a global order where:

- **Sovereignty is no longer absolute**
- Power is **distributed among states, corporations, cities, networks, and supranational bodies**
- **Jurisdiction overlaps** (national law, international norms, digital platforms)
- **Violence and influence are privatized or hybridized** (e.g., PMCs, cyber actors, militias)
- This is a world where authority is **shared, conditional, and often contested**, just like the medieval period when monarchs, popes, guilds, and city-states all claimed influence.

# Who are the Geopolitical Actors in a Neo-Medieval System?

## 1. States (strong, weak, fragile, failed)

## 2. Non-State Strategic Actors

- **Corporations**: exert influence through platforms, standards, supply chains
- **Cities and regions**: conduct climate, tech, and migration diplomacy
- **Supranational bodies**: EU, UN agencies (IMO, WHO)
- **Militias/PMCs**: Wagner Group, cyber mercenaries, criminal syndicates
- **Digital platforms**: set de facto policy on speech, identity, and data
- **Individuals**: Bill Gates, Elon Musk, Jeff Bezos
- **Religious Leaders** such as the Pope

# Europe: Between Renaissance and Irrelevance

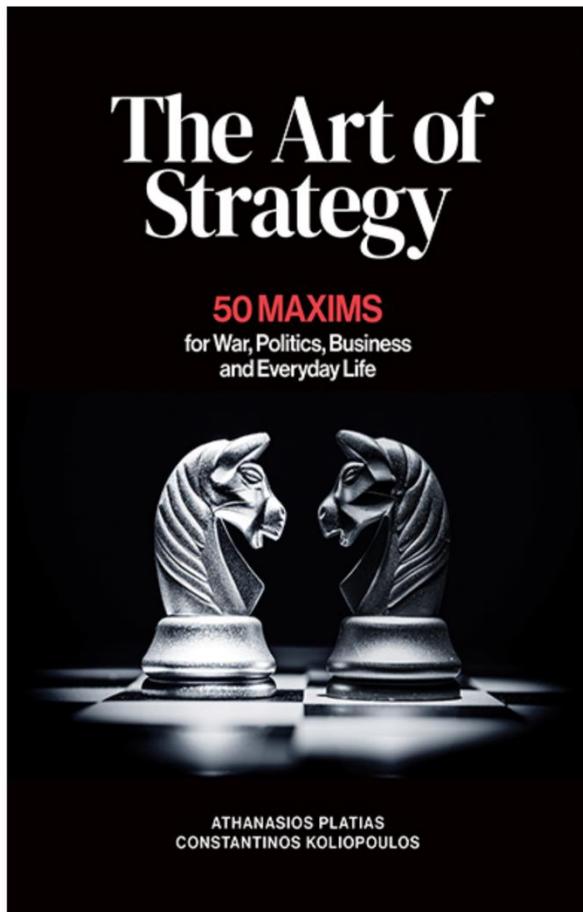
Europe today faces a complex **geopolitical predicament** shaped by:

- The **return of war** (Ukraine) and **the rise of the Russian threat**
- US strategic Decoupling, **loss of US security umbrella**
- **Internal fragmentation** amid rising populism and economic divergence
- **Loss of cheap Russian energy**, American pressure to decouple from China

Europe is no longer the strategic centerpiece of global order, nor is it a cohesive actor. To remain a consequential actor and achieve **strategic autonomy** it must:

- **Rebuild capacity** across defense, tech, and energy
- **Reinvent alliances** without becoming subordinate

# Further Reading...



## THUCYDIDES ON STRATEGY

GRAND STRATEGIES IN THE PELOPONNESIAN  
WAR AND THEIR RELEVANCE TODAY

Athanasiou Platias & Constantinos Koliopoulos

# Geopolitical trends influencing maritime security

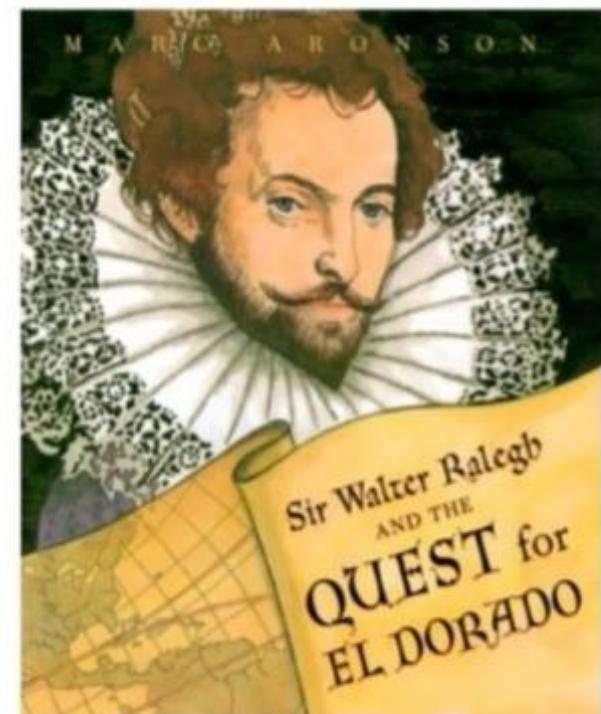
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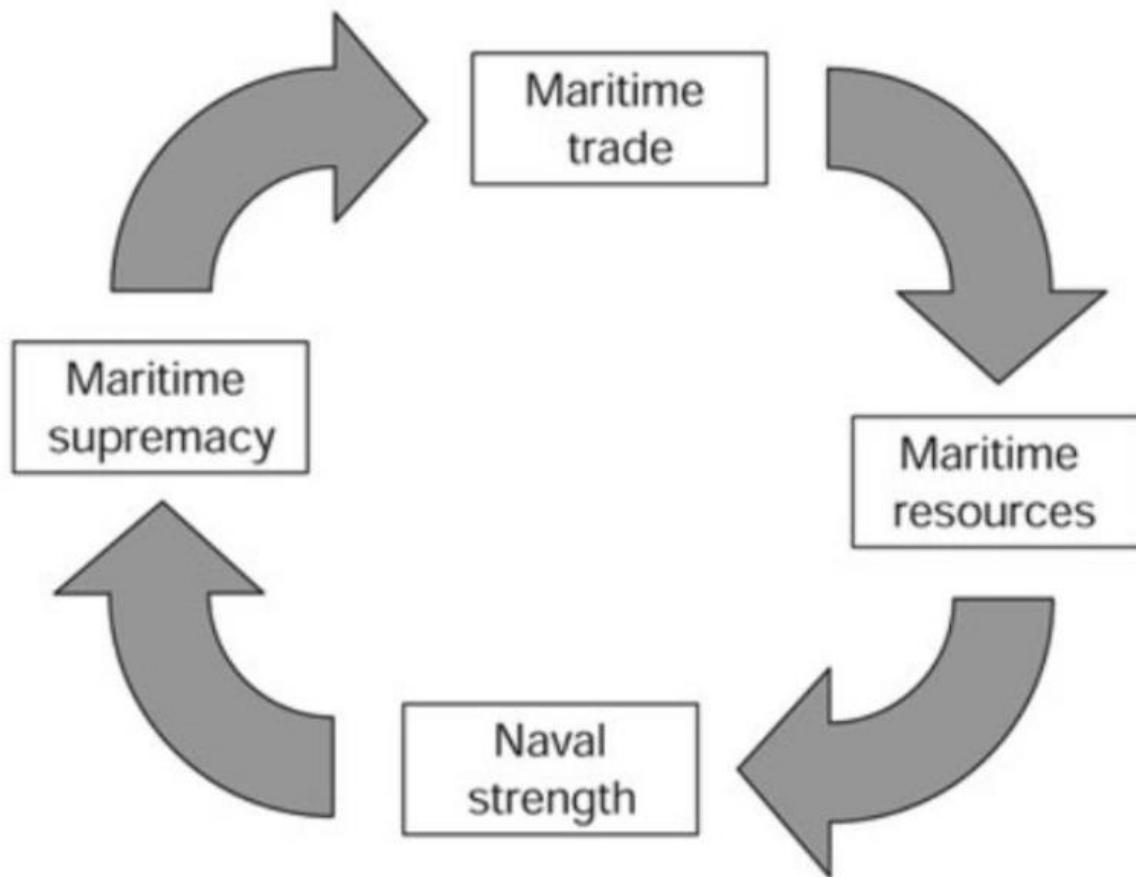
President , Council for international Relations

Department of International and European Studies, University of Piraeus



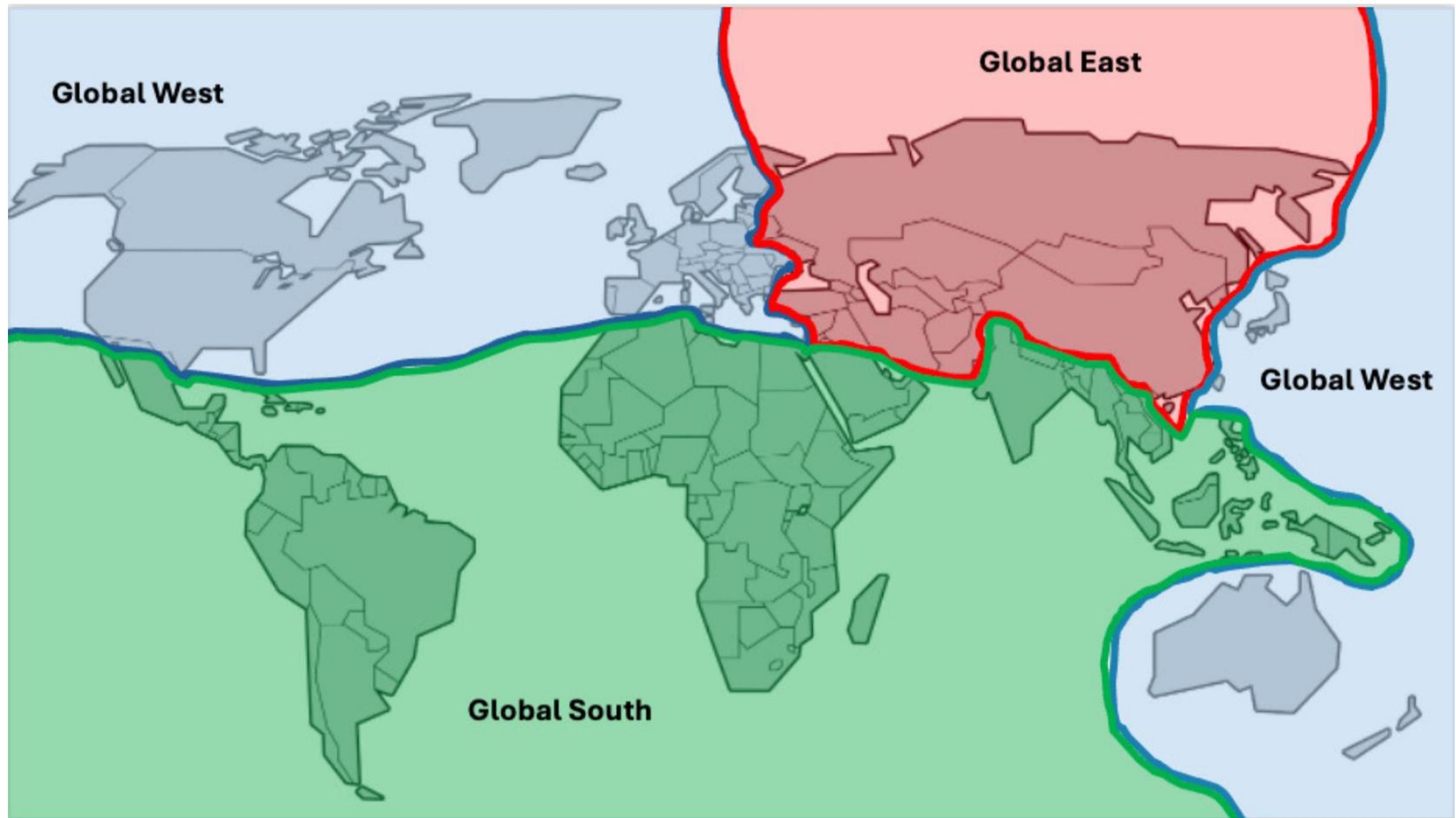
*“Whosoever commands the sea commands the trade; whoever commands trade of the world commands the riches of the world, and consequently the world itself.”* –Sir Walter Raleigh, 1616.





# Evolving Global Framework

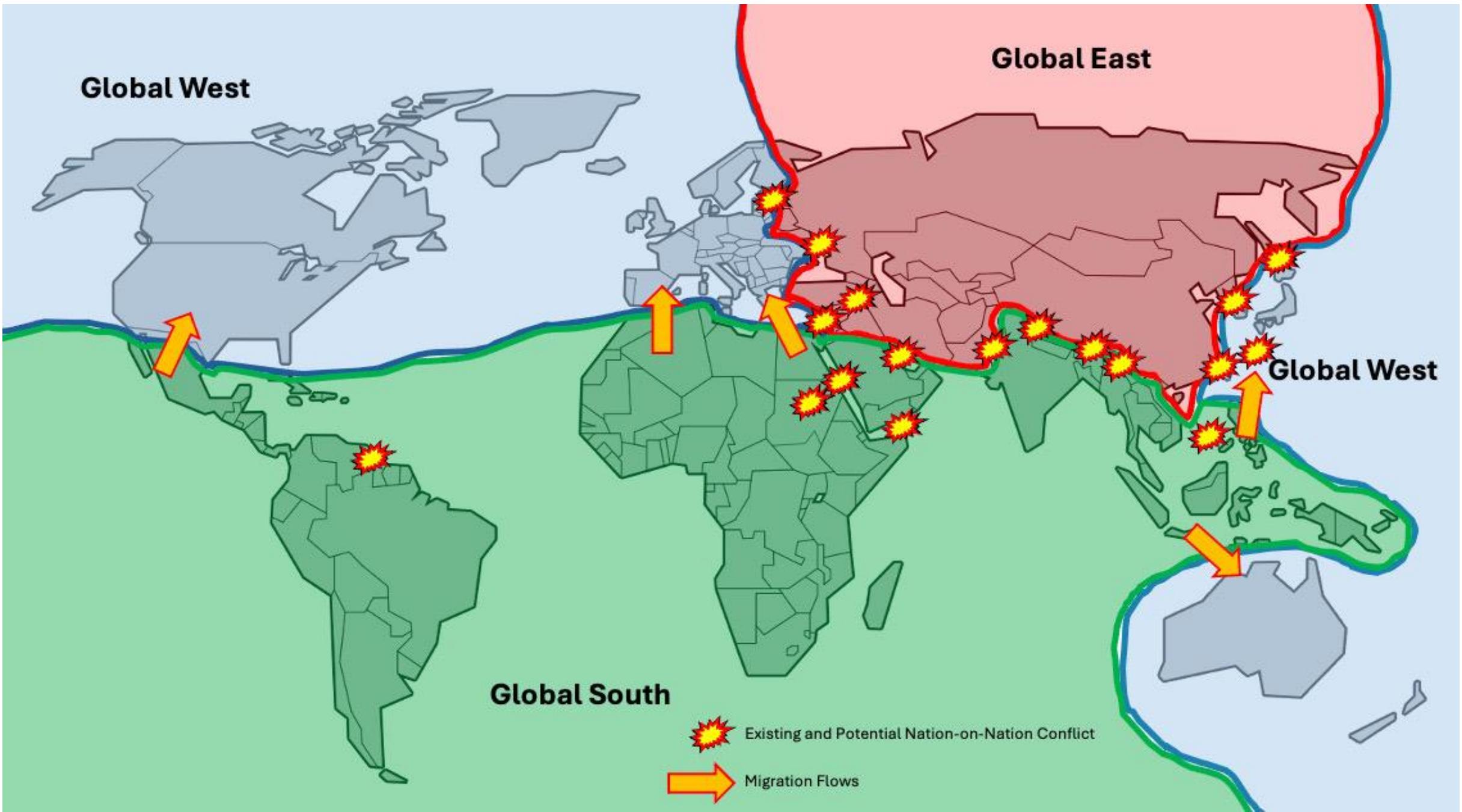
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# Competition shifts from Central Europe to Southeast Asia, from Land to the Sea

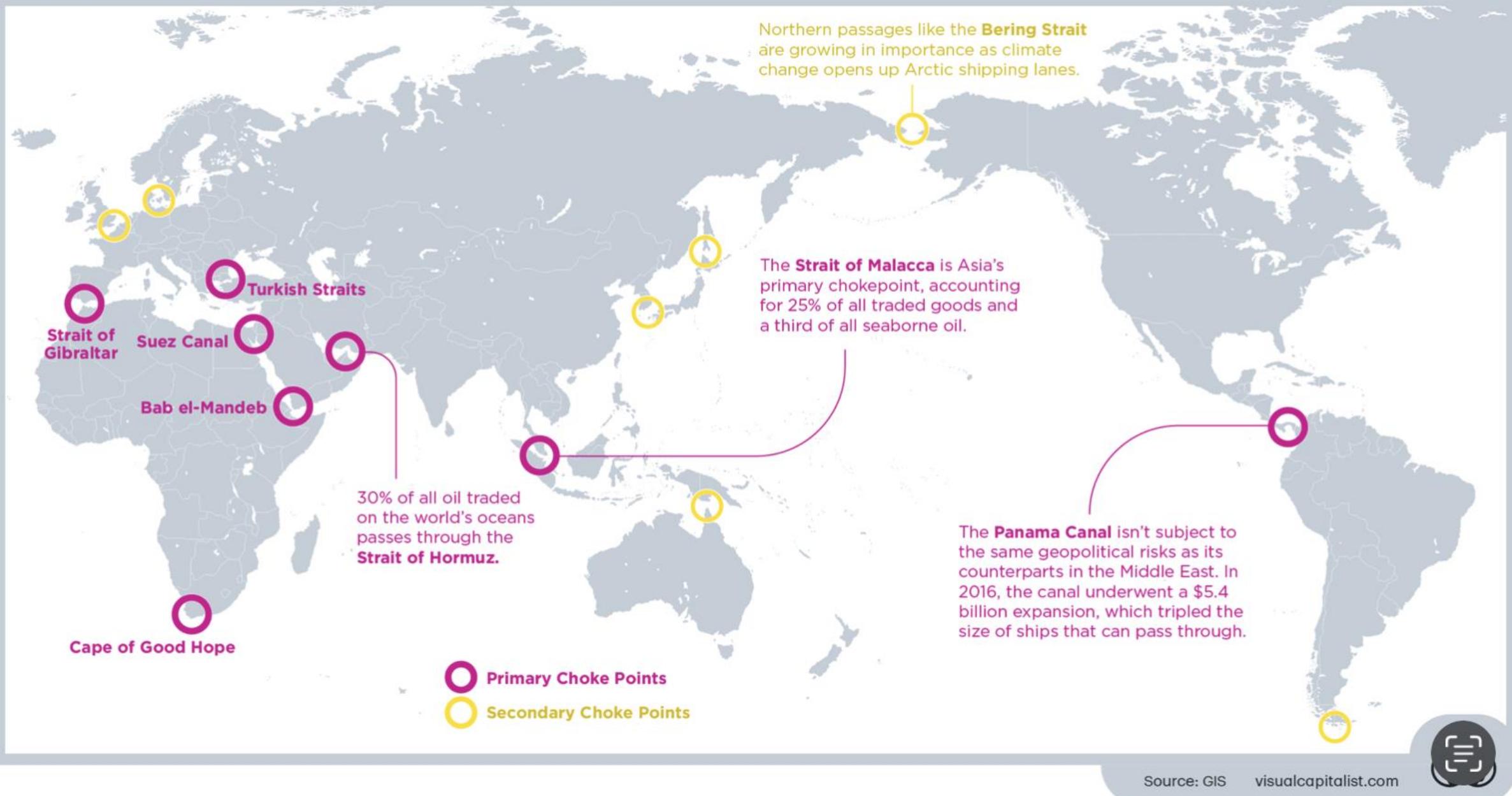
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- Importance of shipping in world trade: **80%** of global trade is seaborne.
- Ensuring the security of maritime routes is essential for maintaining the flow of goods worldwide, impacting economies globally. Maritime security protects shipping lanes from illegal activities that could disrupt trade.

## THE WORLD'S KEY MARITIME CHOKING POINTS



**Table 1. Assessment of security and geopolitical and security risks per chokepoint**



	Suez Canal	Strait of Hormuz	Bab el Mandeb Strait	Strait of Malacca	Lombok Strait	Ombai Strait	South China Sea	East China Sea
Great power rivalries	M	M	H	M	H	H	H	H
Littoral rivalries	M	H	H	M	L	L	H	H
Maritime disputes	L	L	M	M	H	L	L	H
Internal instability	M	H	H	H	M	L	L	M
Piracy and armed robbery against ships	L	M	H	H	H	M	M	M
Terrorist attacks	M	M	H	H	M	M	M	L
Climate hazards	M	M	M	H	H	H	H	H

# Global transport corridor face major risks

Zones of danger today:

- Black Sea
- Red Sea
- Eastern Mediterranean
- Persian Gulf
- Horn of Africa

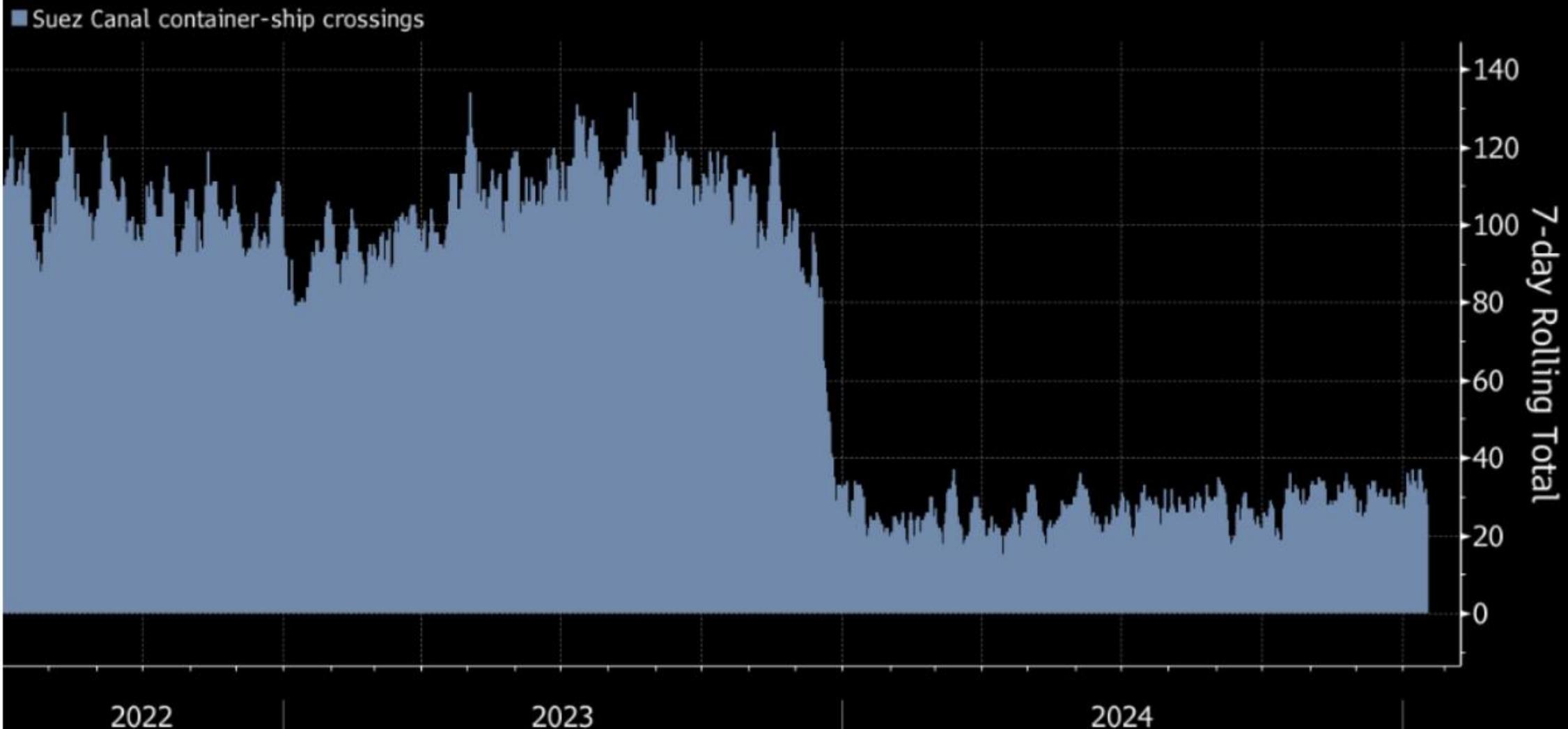
Future danger zones:

- Southeast China Sea
- East China Sea/ Taiwan
- Arctic

# **Red Sea attacks**

# Suez Canal Traffic Slumps on Houthi Red Sea Attacks

Ship crossings fell as attacks started in late 2023

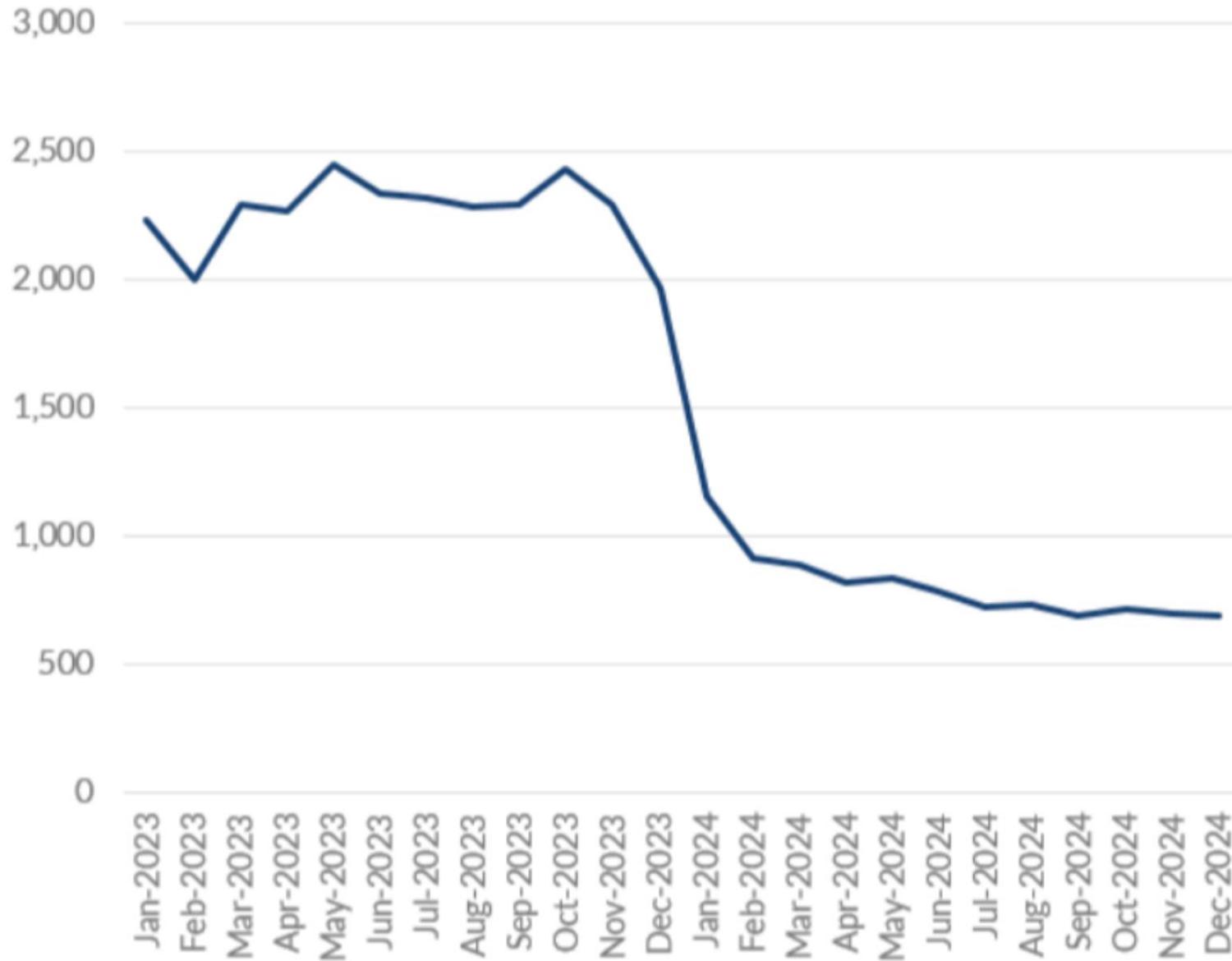


Source: Bloomberg estimates

Bloomberg

# Lingering Uncertainties Will Prevent Rapid Normalisation

Bab-el-Mandeb Strait - Transit calls



## Threat levels

- Frequency of (successful) Houthi strikes varies due to range of factors; threat level for individual ships differs
- Houthi threat to extend campaign to eastern Mediterranean and Indian Ocean not credible

Vessel type	Threat type	Threat level
Vessels specifically linked to Israel through ownership, port calls, trade with and/or commercial relationship between Israeli companies and owners/operators	Kinetic attack (missile, aerial/waterborne drone), possibly seizure and detention	Severe
Vessels linked to the United States, United Kingdom and other countries involved in Operation Poseidon Archer	Kinetic attack (missile, aerial/waterborne drone), possibly seizure and detention	Severe
Vessels linked to other countries participating in or supporting Operation Prosperity Guardian or Operation Aspides	Kinetic attack (missile, aerial/waterborne drone), possibly seizure and detention	Elevated
Other merchant ships in transit through the Red Sea/Gulf of Aden	Kinetic attack due to misidentification, potential proximity to the above threats ('collateral damage')	Elevated

## Rerouting global shipping

Container shipping companies have been avoiding the Red Sea and rerouting vessels around the Cape of Good Hope in order to avoid Houthi attacks on vessels.



Note: These times assume an average vessel speed of 16 knots.  
Routes shown are illustrative.

Source: Flexport

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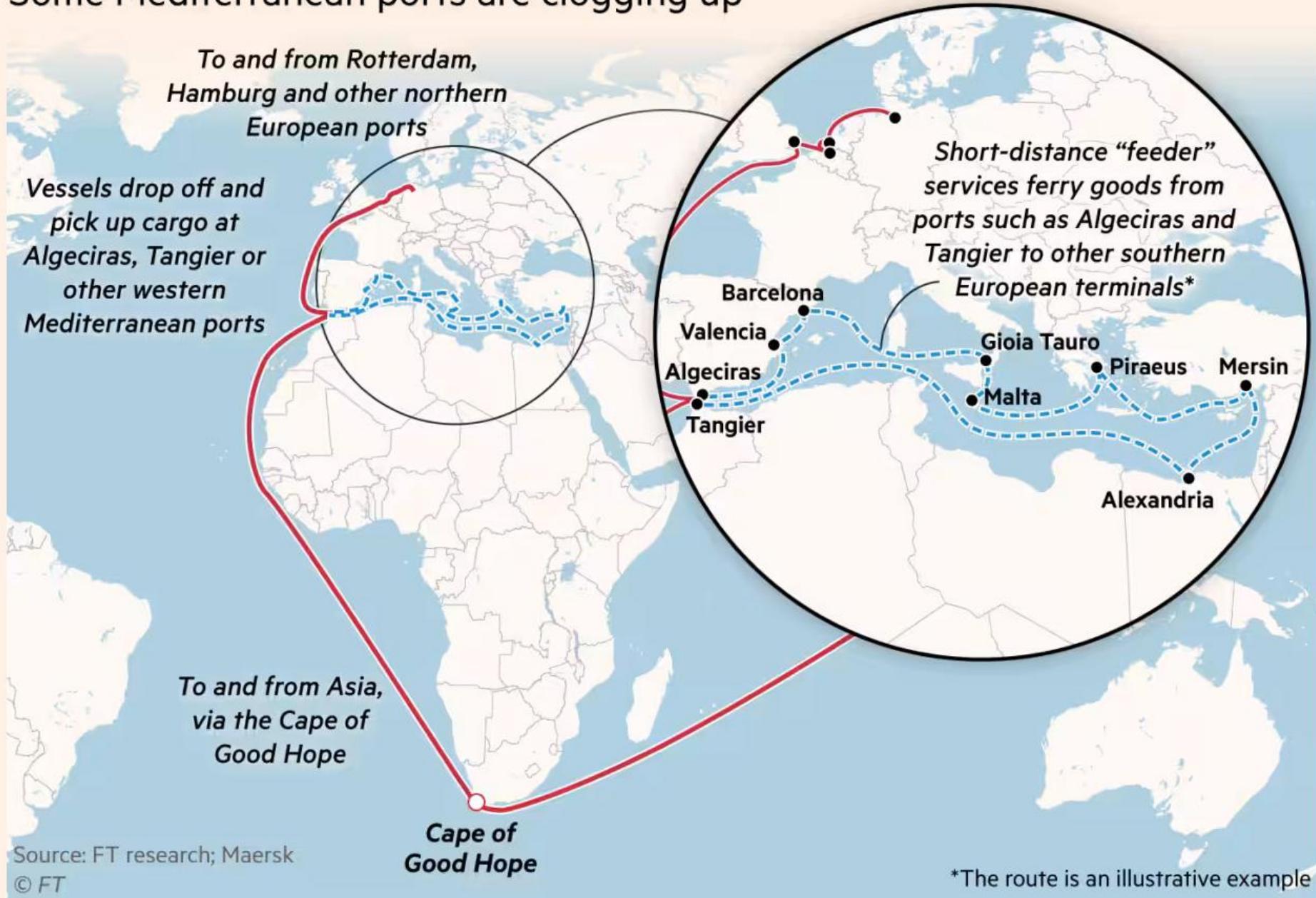
Rerouting requires a significant change in the supply chain, trade route and conditions for vessels that normally follow a rigid schedule and process



Additional nautical miles sailed when rounding the Cape of Good Hope compared to using the Suez Canal

**3,000+**

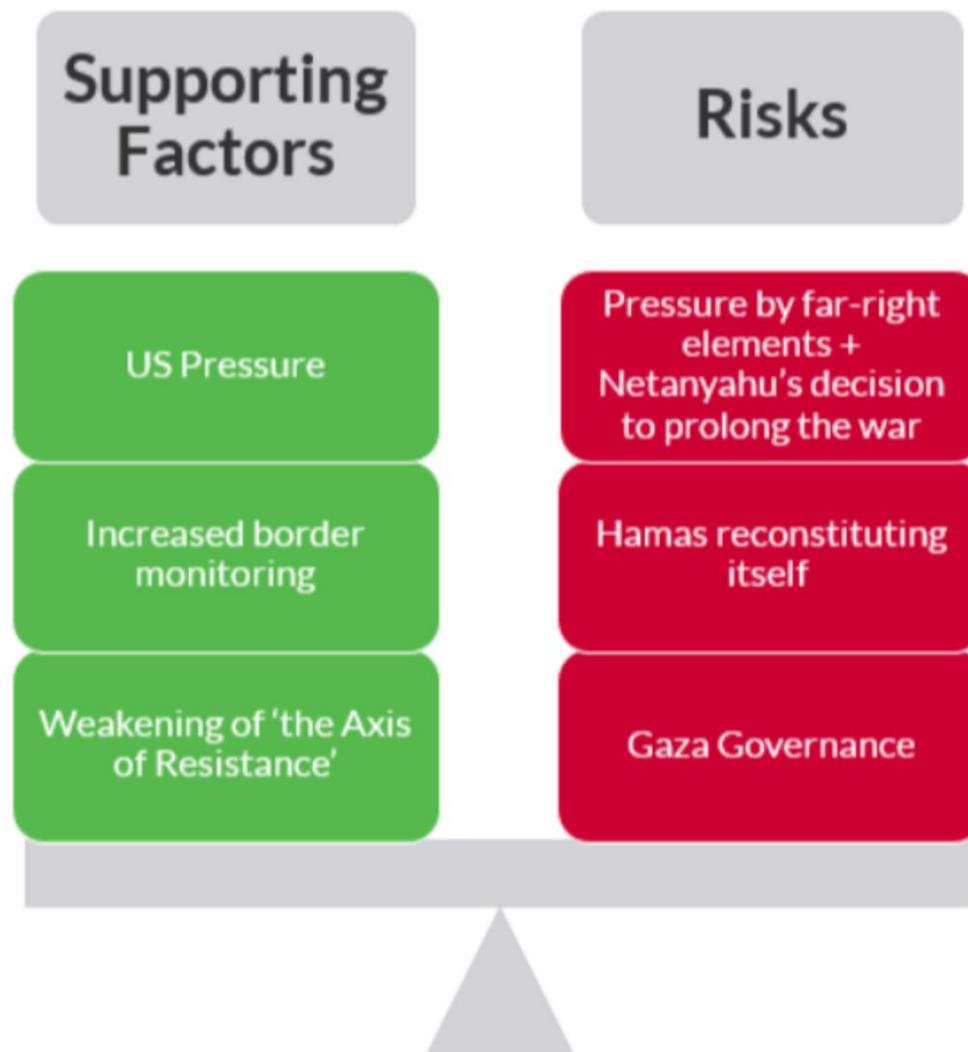
## Some Mediterranean ports are clogging up



# Gaza ceasefire agreement

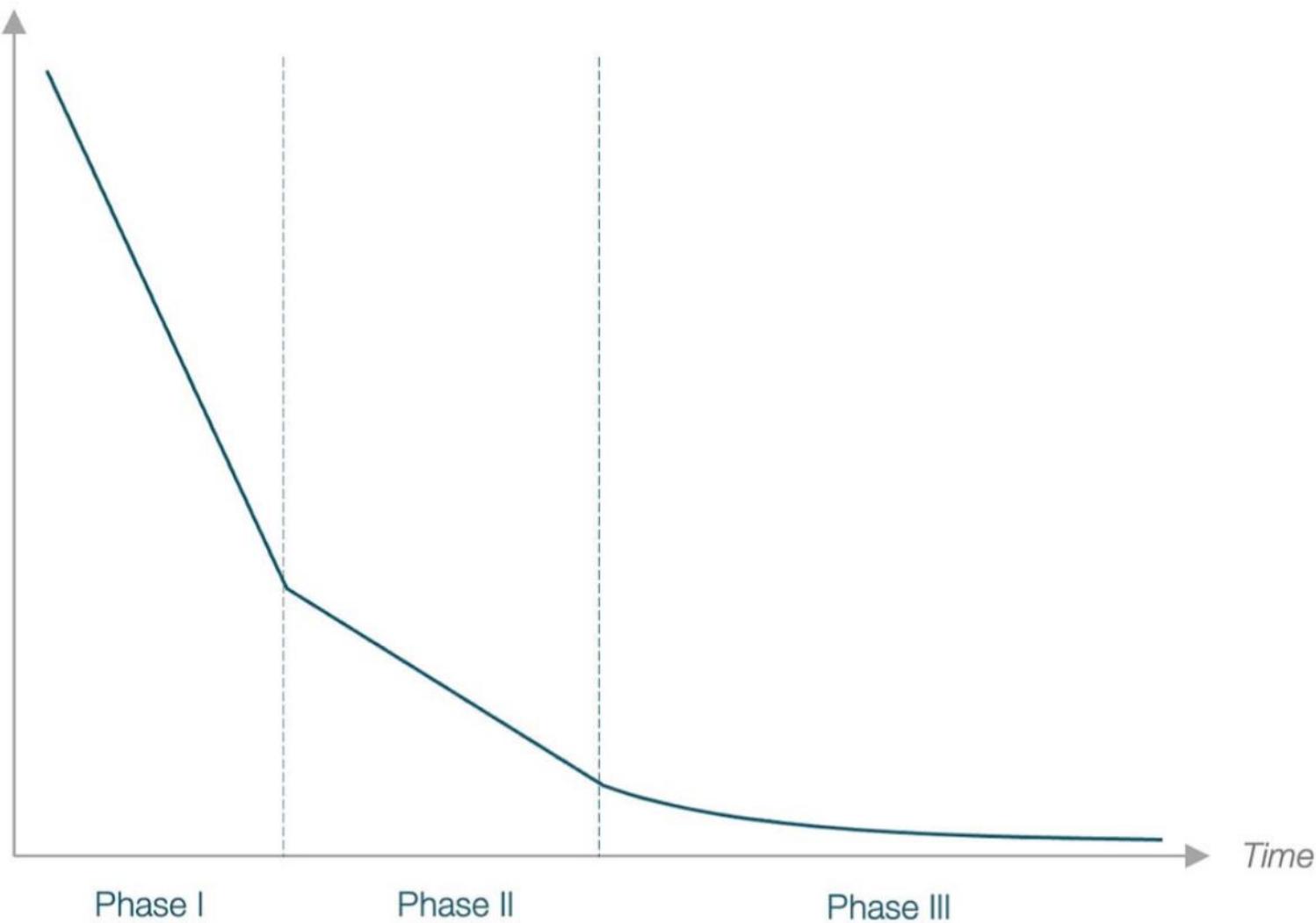
## Risks Are Elevated

Balance Of Risks



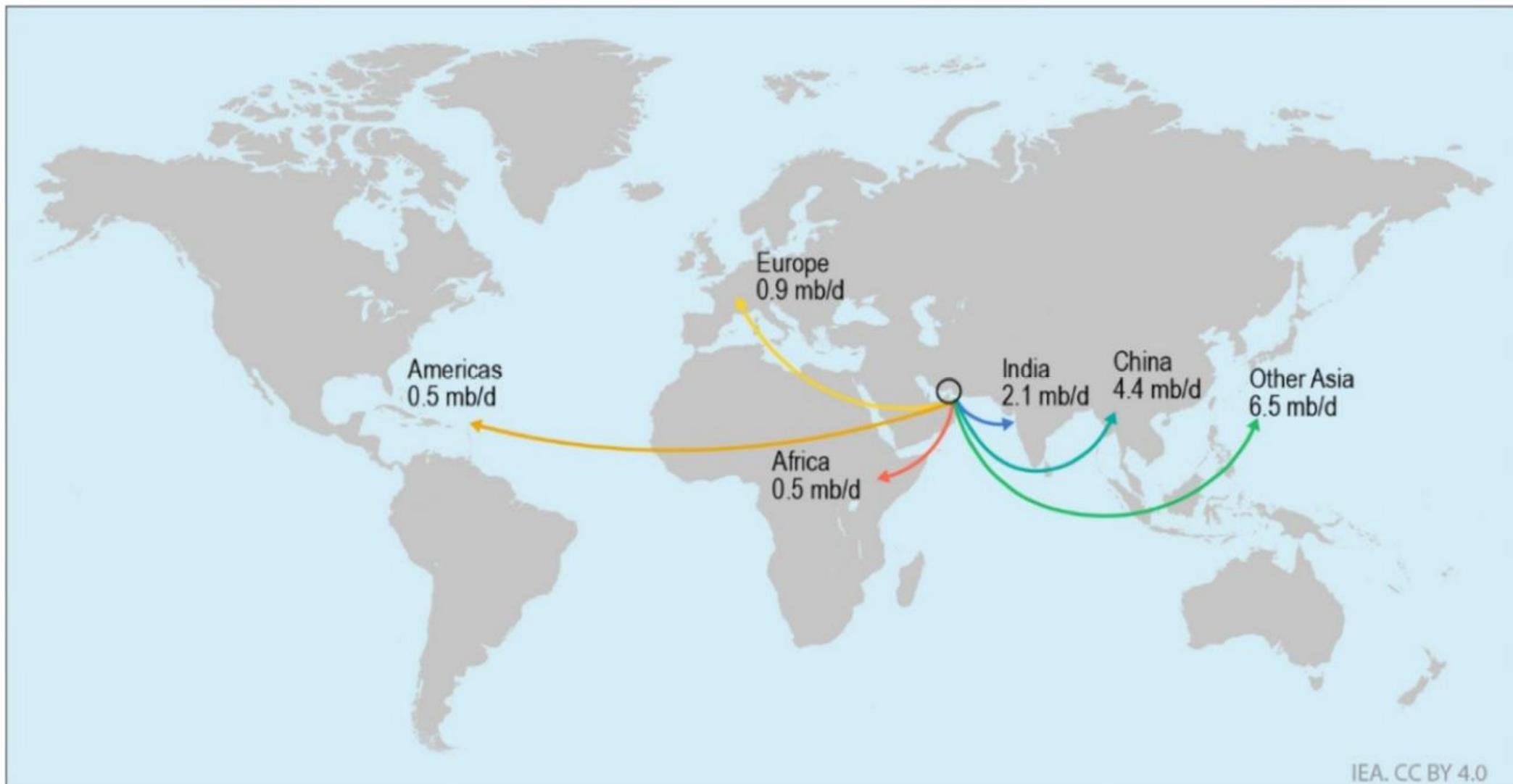
## Motivation for Israel to Keep the Ceasefire Alive

*Motivation to keep the deal alive*



**Dangerous zone: Strait of Hormuz**

# Impact of potential Israeli-Iranian conflict on the Strait of Hormuz

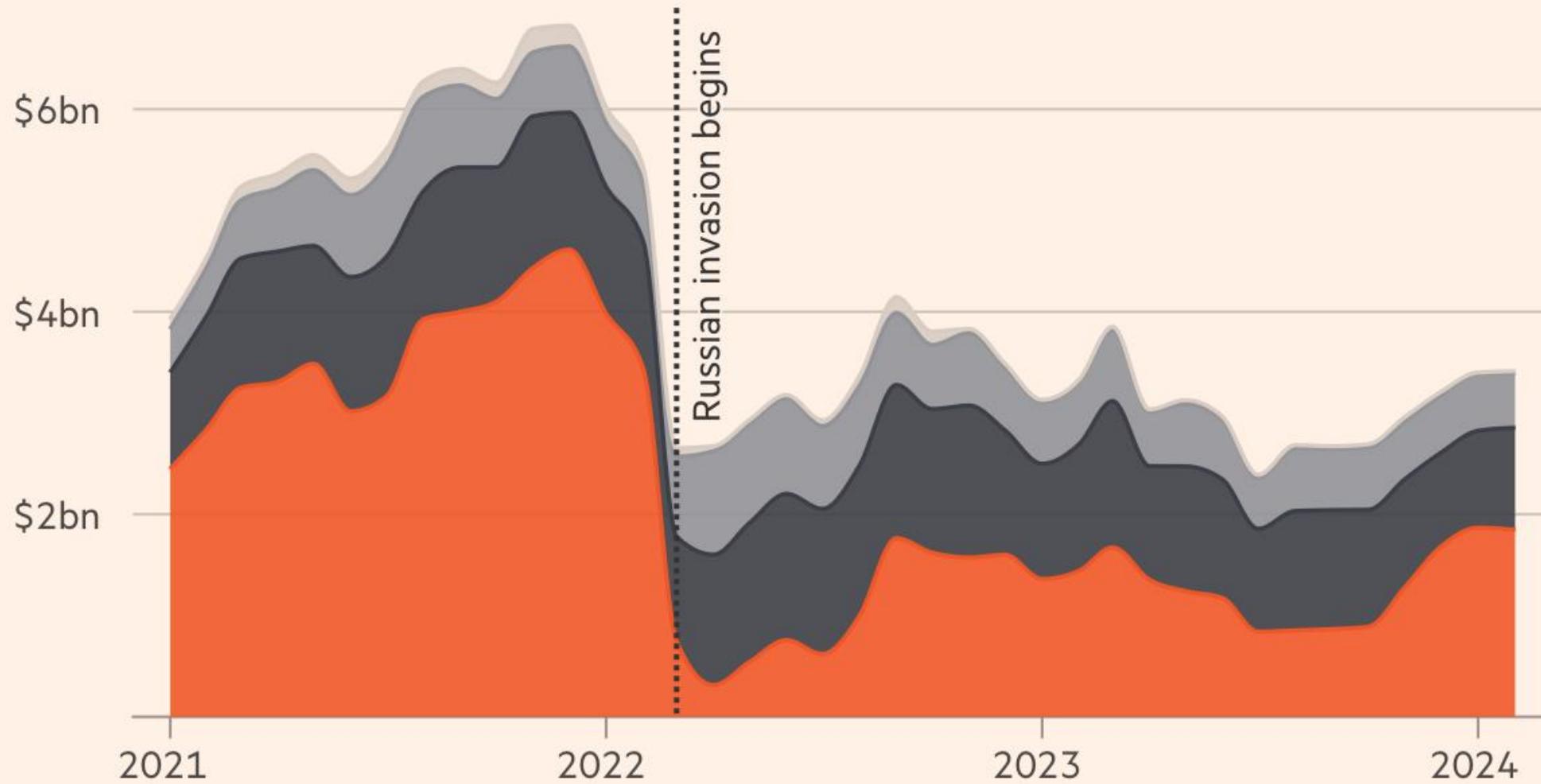


# **Black Sea conflict**

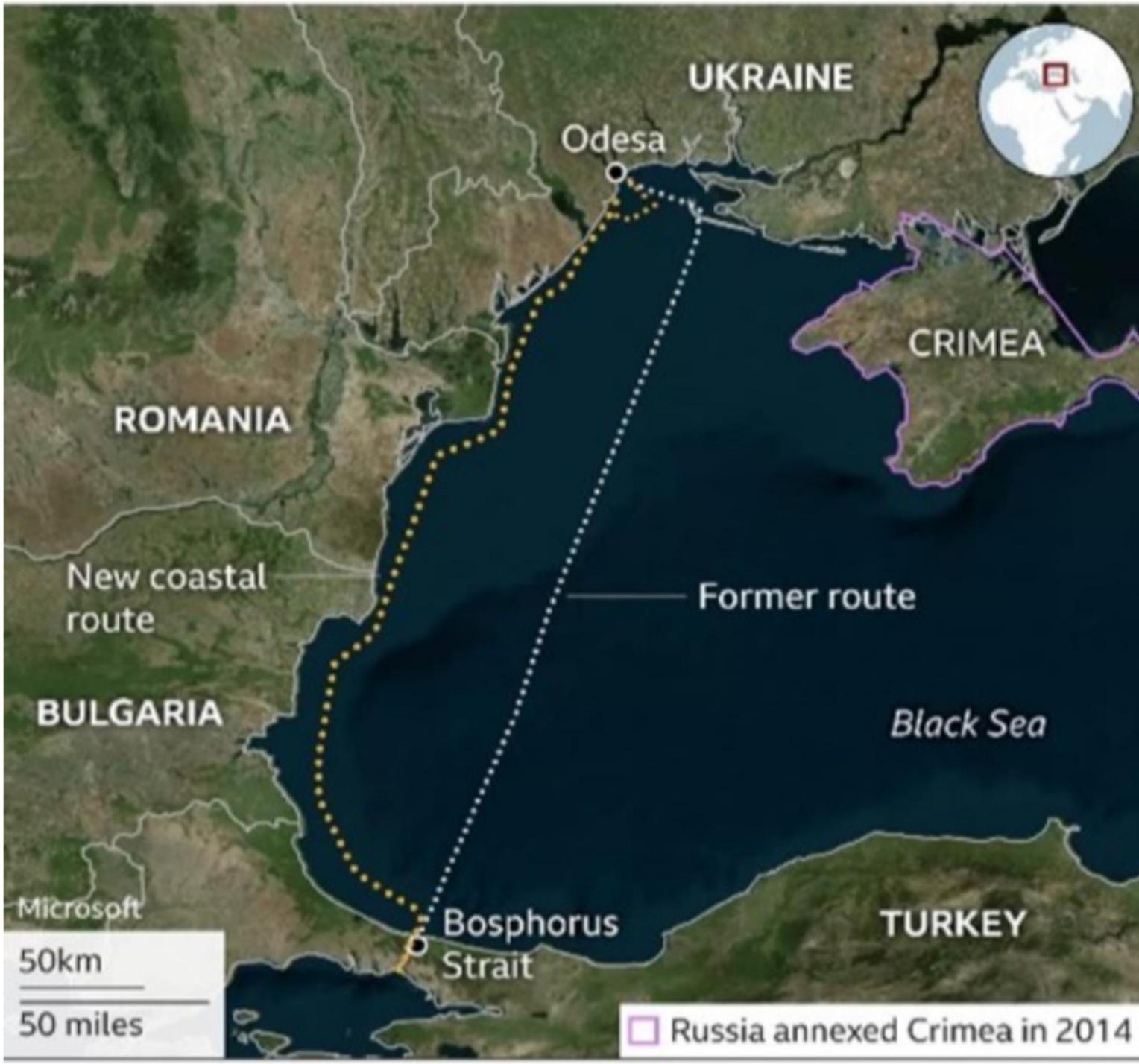
# Broader Black Sea region connecting Euro-Atlantic area to Indo-Pacific



Sea Road Rail Other



Source: [Trade Data Monitor](#)



## »» Dark/Parallel Fleet

- UN Sanction violations
- Old ships
- No insurance
- Environmental risk
- MV Pablo accident (Malaysia)
- MV Ceres (Singapore)



# A Long War Ahead, Intensity Of Fighting To Subside

2022      2023      2024      2025      2026      2027      2028      2029      2030      2031      2032      2033

## Current Phase

The current phase of the conflict can be described as a **high-intensity** or **full-scale** war.

This refers to a situation where the maximum deployable resources of the belligerents, including weaponry, manpower and financial capital are engaged in the war.

This phase is characterised by large-scale mechanised offensives, involving fighter jets, tanks, artillery and other heavy vehicles.

## Protracted Stalemate

We believe the emerging 'stalemate phase' of the war will closely resemble the 2015-2021 period of the Russia-Ukraine war.

In a military stalemate, the frontlines tend to remain relatively static. A military stalemate does not necessarily mean a cessation of fighting. **Battles may still occur, but they do not significantly change the balance of power or overall strategic situation.**

As stalemates are less resource-intensive, we believe the war will be locked in this state for several years.

## Outcome – Frozen Conflict

Akin to the situation between North and South Korea after the Korean war (1950-1953).

**Active armed conflict has ended, but no formal peace treaty or peace agreement has been signed** between the parties involved, resulting in a *de facto* situation of 'cold peace'. The demarcation line between Ukrainian and Russian forces could evolve into a quasi-permanent structure within Ukraine, **potentially analogous to the 'Demilitarized Zone' (DMZ) that separates the two Koreas.**

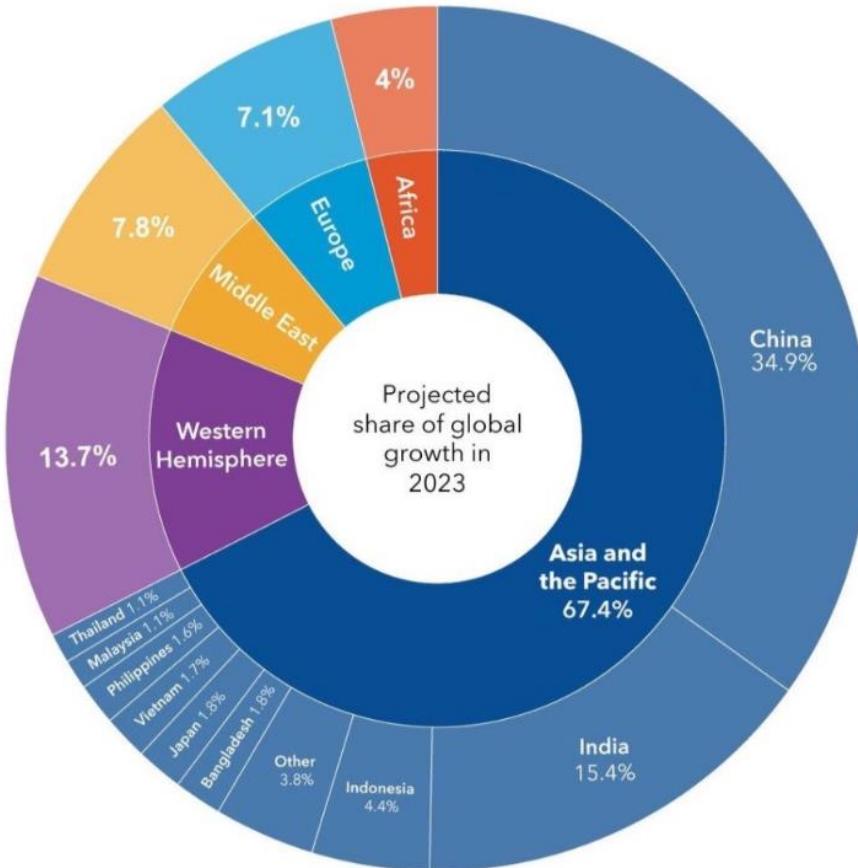
Both governments would refuse to recognise territory held by the opposing force but refrain from undertaking new military offensives to capture territory. This phase could emerge with or without a formal ceasefire.

**Potential dangerous zone:  
Southeast Asia**

# The center of gravity of the world

## Bigger driver

Asia will contribute about 70% of global growth this year.



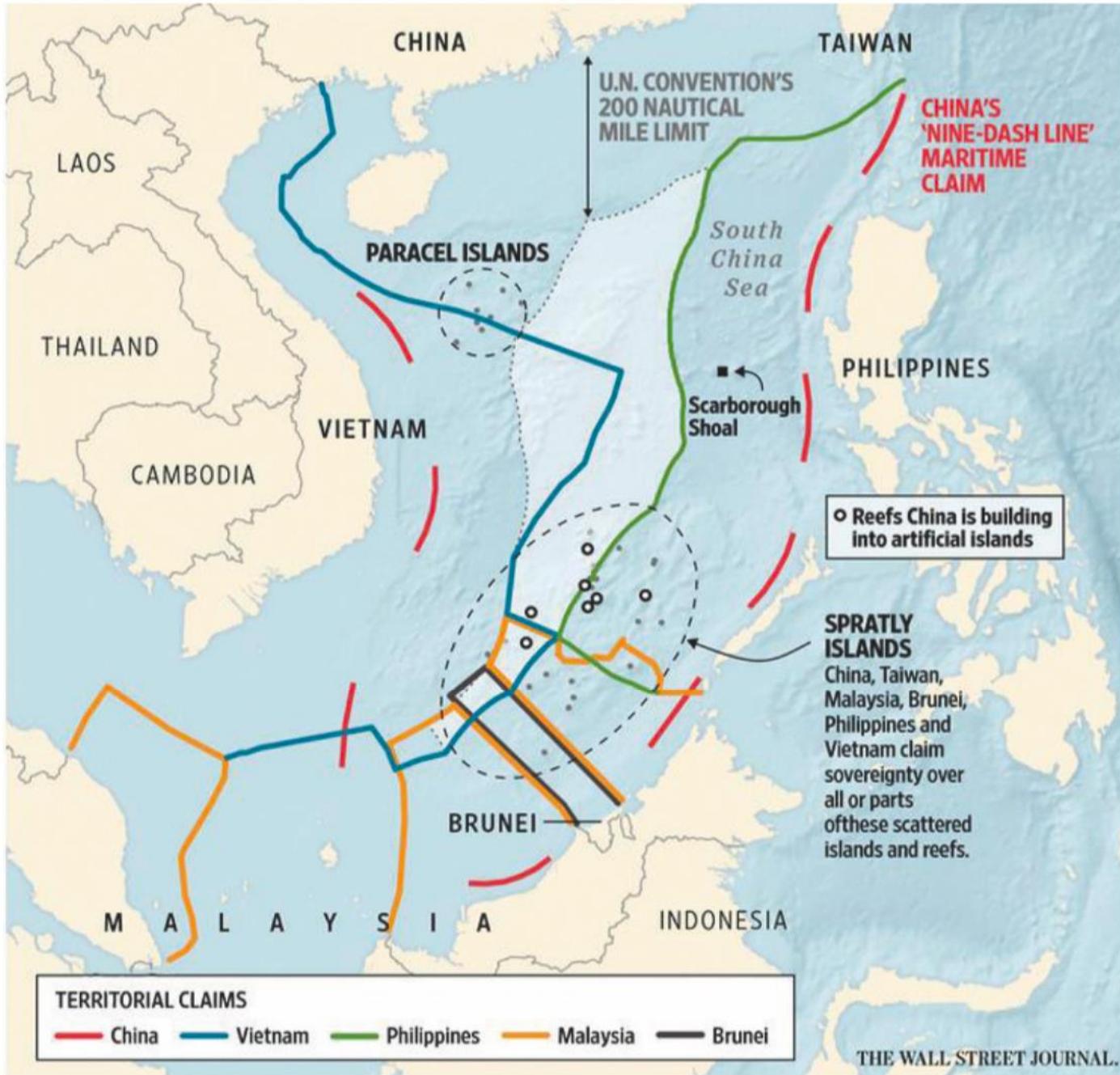
# Meet My Five Billion Neighbors

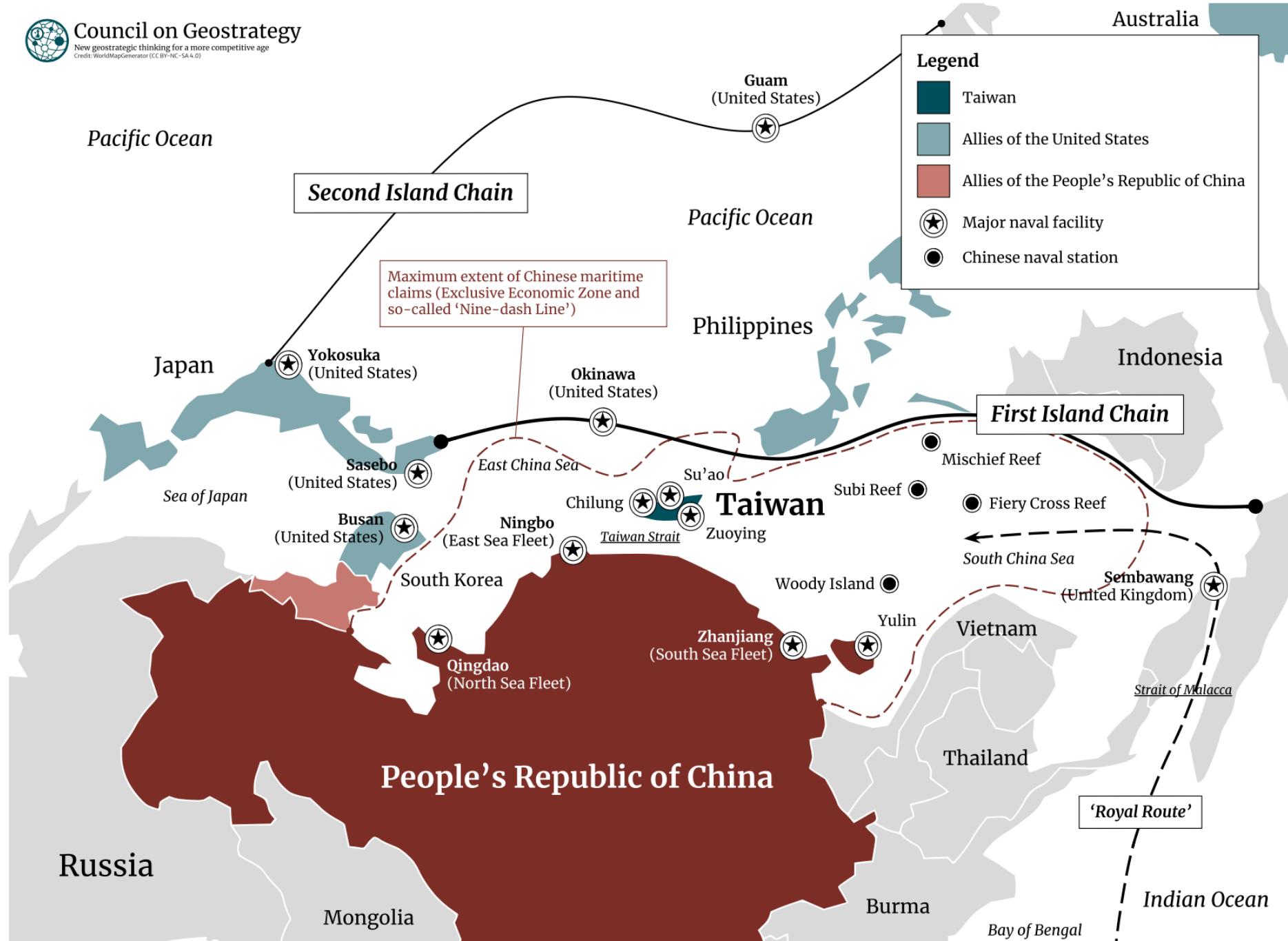
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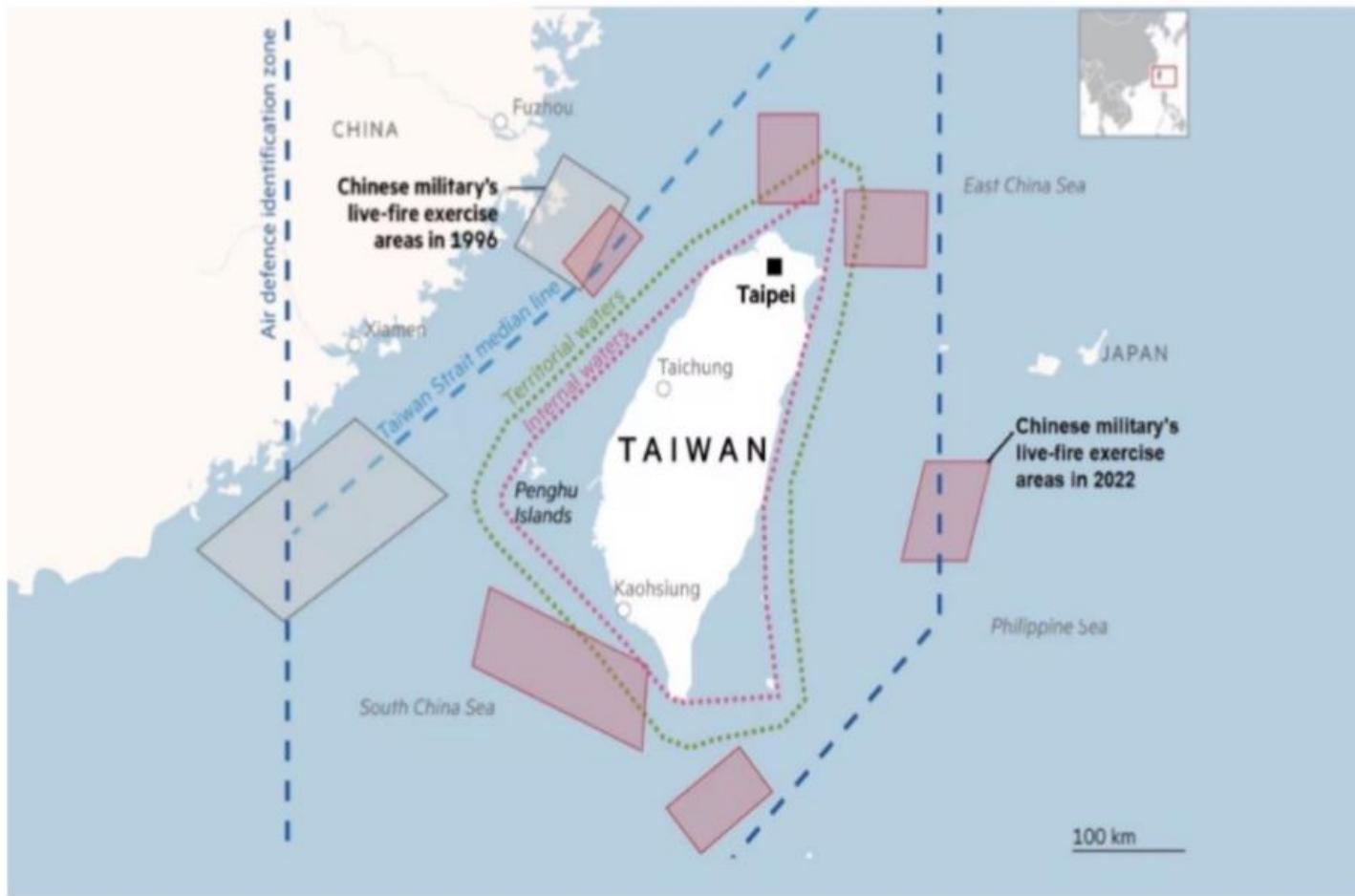
POPULATION: Asia = 5 Billion > Americas (1 Billion) + Europe/Middle East/Africa (2 Billion)







# East Asia: Impact of China and Taiwan conflict on shipping



# **The geopolitics of Panama Canal**

# Trump says US will take back Panama Canal

US President Donald Trump said the US would [take back](#) the Panama Canal, decrying China's influence over the important waterway and the high rates being charged to American ships.

---

Geopolitical tensions have reinforced the importance of the Panama canal

Number of transits per day, 28-day rolling average

— Suez Canal — Panama Canal



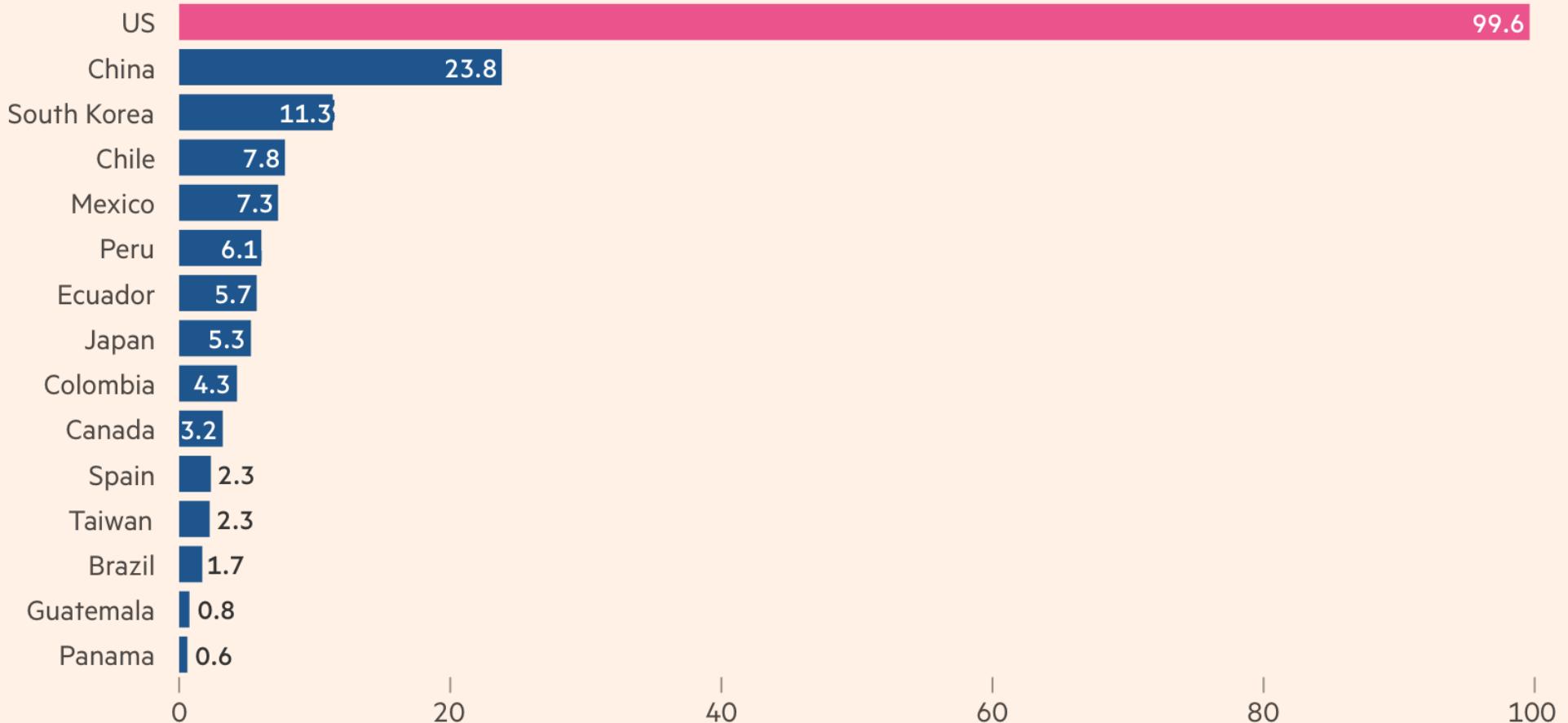
The Panama Canal is crucial to US shipping routes



## The **US** dominates traffic through the Panama canal

Cargo by country, 2024 (Long tons, mn)

Origin    Destination

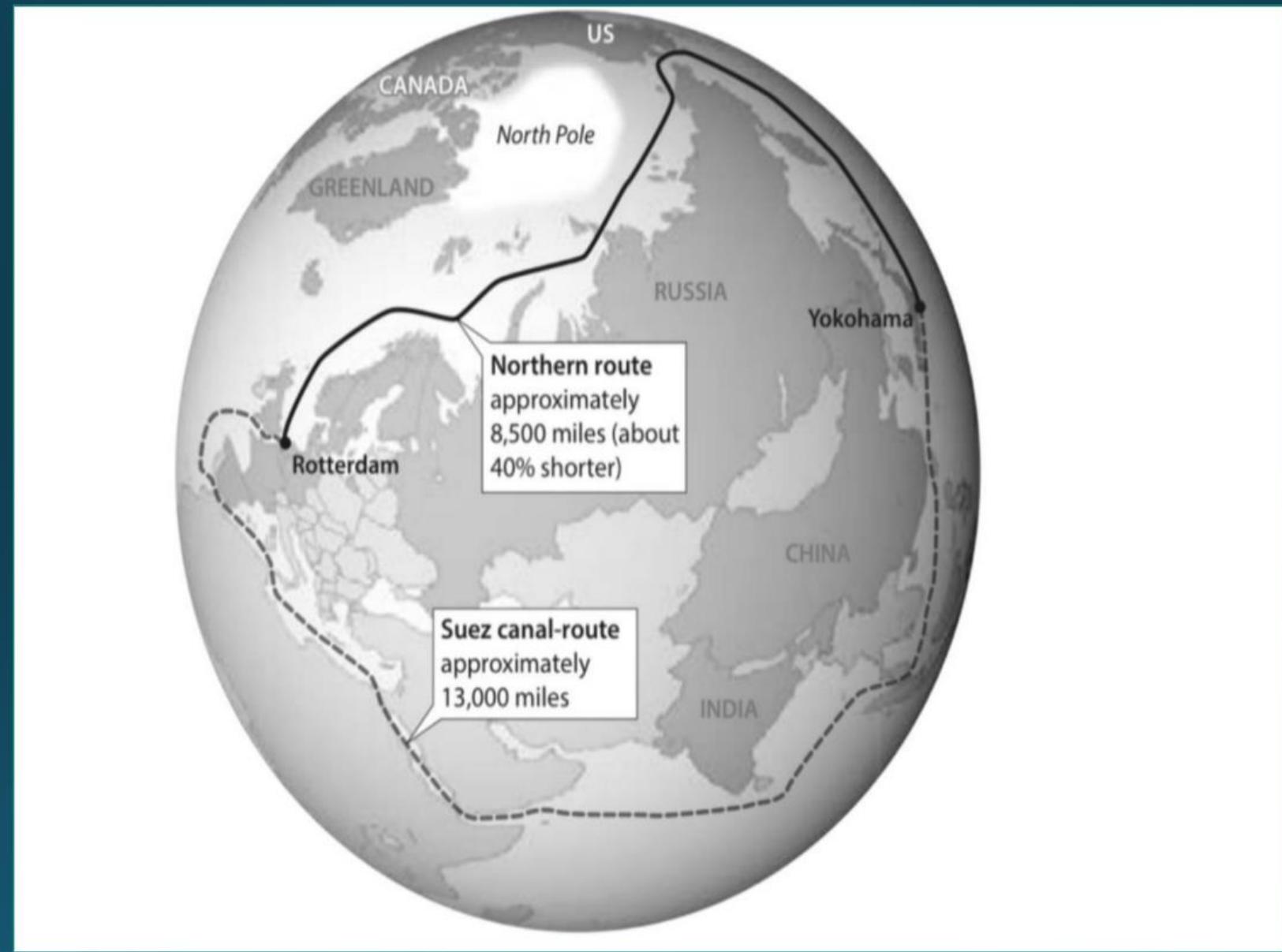


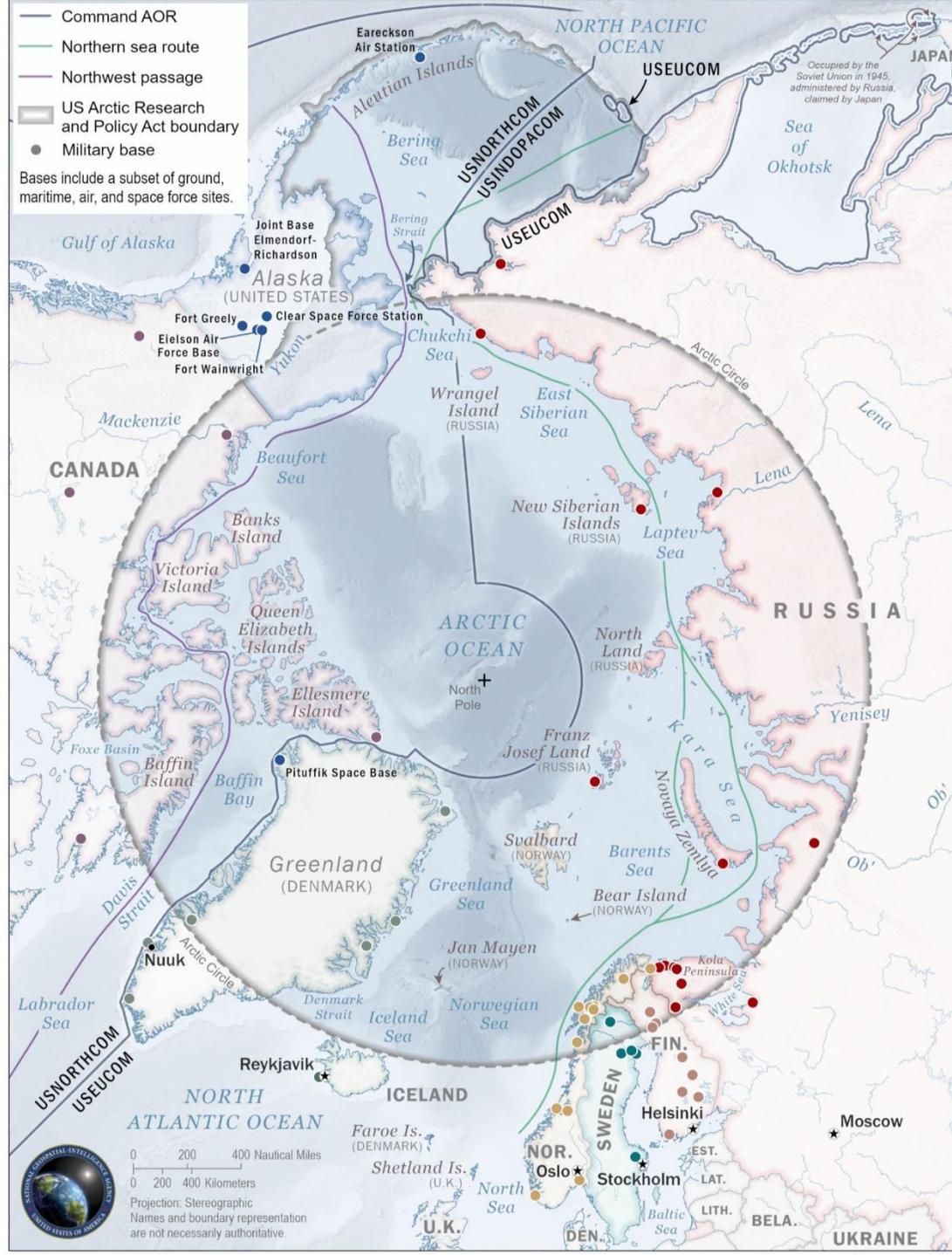
# **The geopolitics of Greenland**

# GREENLAND









# **The geopolitics of global trade and supply lines**

*sanctions, tariffs, trade shifts*

<b>RESHORING</b>	Transferring operations back to its primary country of operations, reducing exposure to outside risk (such as the disruption of supply chains by geopolitical events) and choosing local businesses with whom to partner.
<b>NEARSHORING</b>	Relocating business operations to a nearby country, often with a shared border, with the aim of ensuring faster speed to market and quicker transit from manufacturers to customers.
<b>OFFSHORING</b>	Relocating existing operations to a different country, usually with the goal of reducing labour or manufacturing costs and/ or ensuring the ready provision of certain skills and raw materials.
<b>FRIENDSHORING</b>	Rerouting supply chains to countries that are political or economic allies, where these countries may be perceived as politically and economically safe or low-risk to avoid disruption to the flow of business.

# Geopolitical Shifts Likely To Re-Shape Global Supply Chains

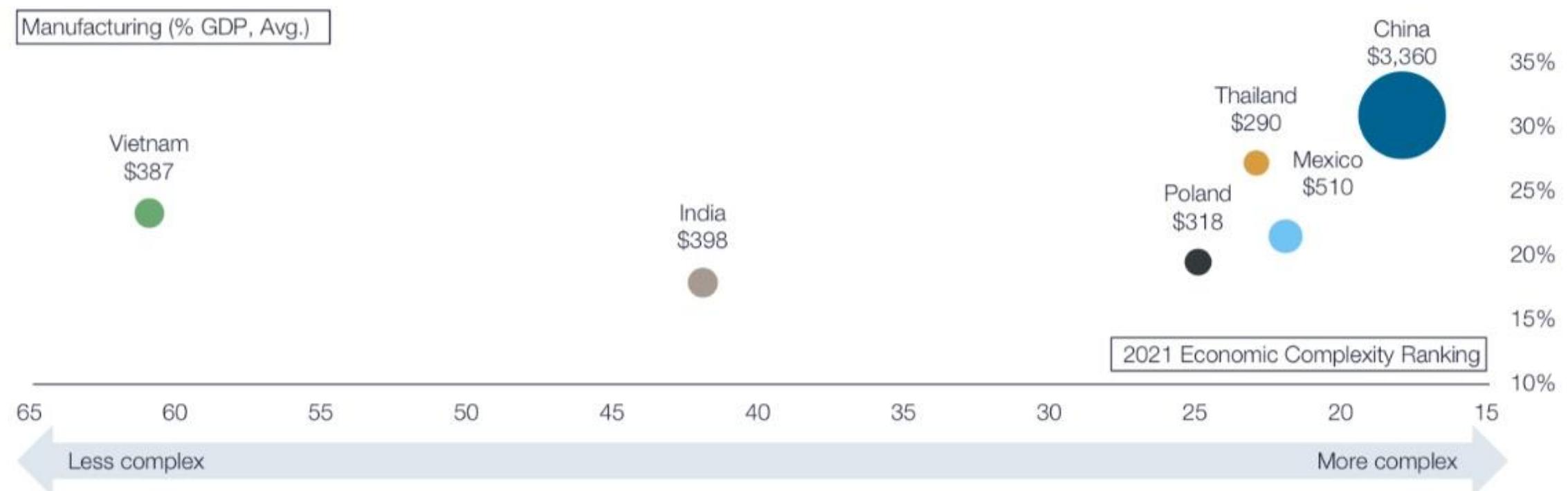
- Major economies will seek to source essential products closer to home (near shoring) or from geopolitical allies (friend shoring)
- Geopolitical reliability of trade partners will become more important

## Three Main Options, All Of Which Will Take Years To Implement

### Supply Chain Diversification Options

Type	Description	Impact
China Plus One	<ul style="list-style-type: none"><li>• Firms keep a large portion of their manufacturing in China but develop a second supplier outside of the country, often in the same region (e.g. Vietnam, Thailand)</li></ul>	<ul style="list-style-type: none"><li>• Improves supply chain security by removing the risk of a single point of failure while maintaining access to the Chinese manufacturing capacity and consumer market. This is usually the cheapest option</li></ul>
Near/Friend Shoring	<ul style="list-style-type: none"><li>• Firms bring business operations to the same region as the primary consumer base (e.g. Mexico, CEE) or to friendly nations</li></ul>	<ul style="list-style-type: none"><li>• Reduces transit time and/or helps avoid geopolitical risk. In some sectors (e.g., autos and heavy manufacturing) this option allows companies to take advantage of better agglomeration effects</li></ul>
Reshoring	<ul style="list-style-type: none"><li>• Firms move manufacturing back to their home market</li></ul>	<ul style="list-style-type: none"><li>• Usually too costly unless there is significant investment in automation or government support, but it substantially cuts logistics and geopolitical risk</li></ul>

Figure 4: Economic Complexity (Ranking, X Axis), Manufacturing as % of GDP (%, Y Axis), and Total Manufacturing Exports (\$bn, Size of Bubble)<sup>13</sup>



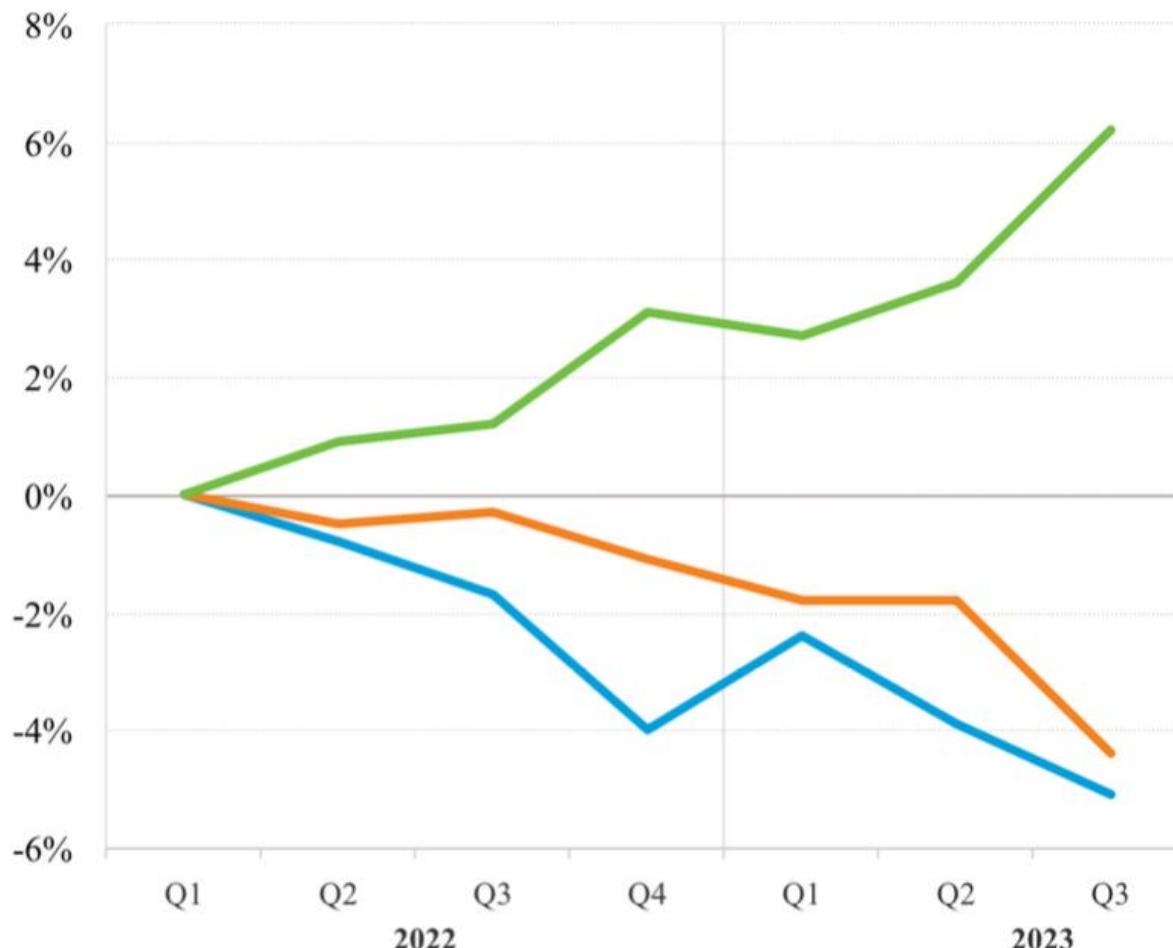


# Global trade patterns take a geopolitical turn

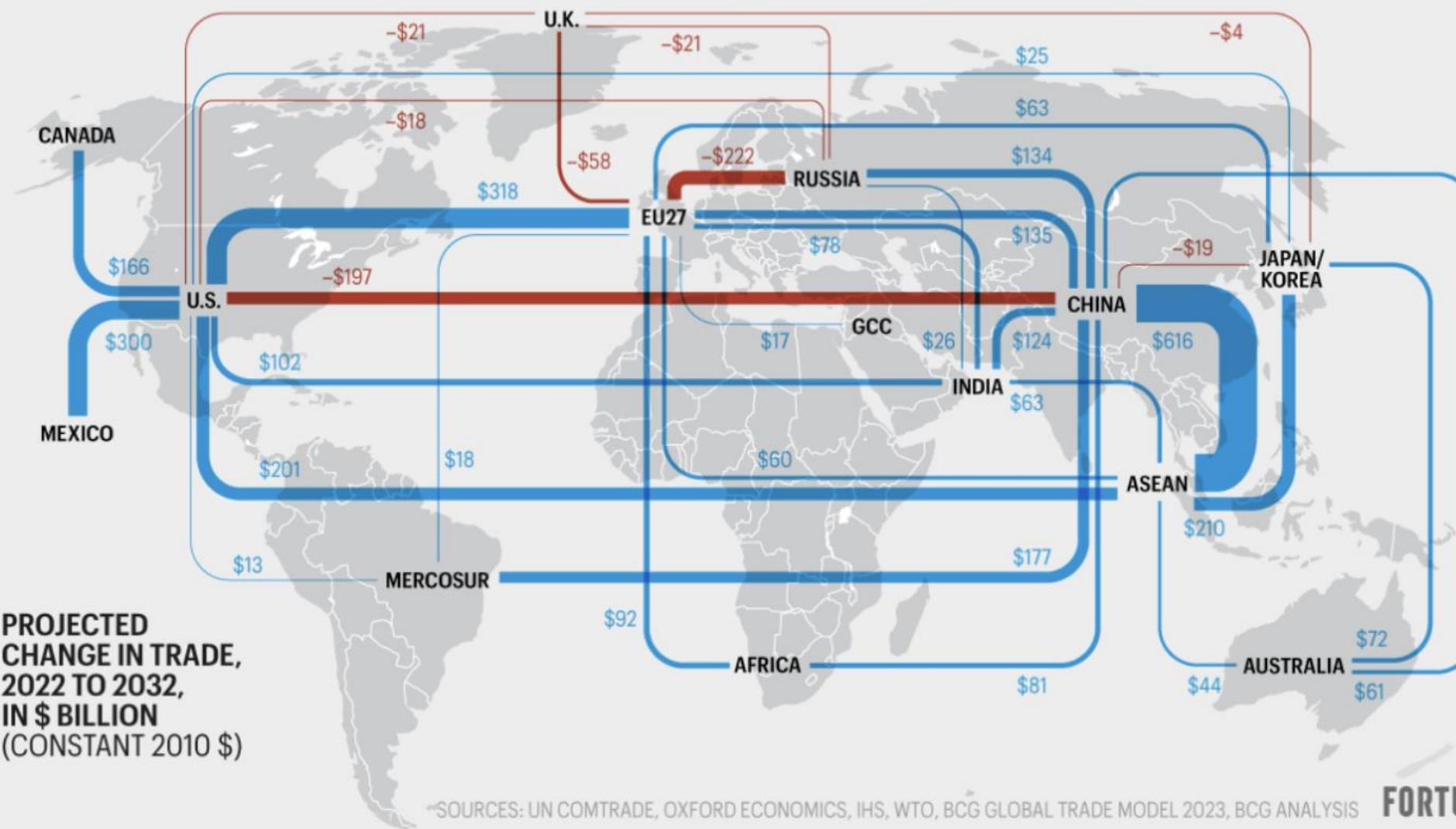


Average change in bilateral trade with each group since Q1 2022

— Geopolitically very distant    — Geopolitically distant    — Geopolitically close

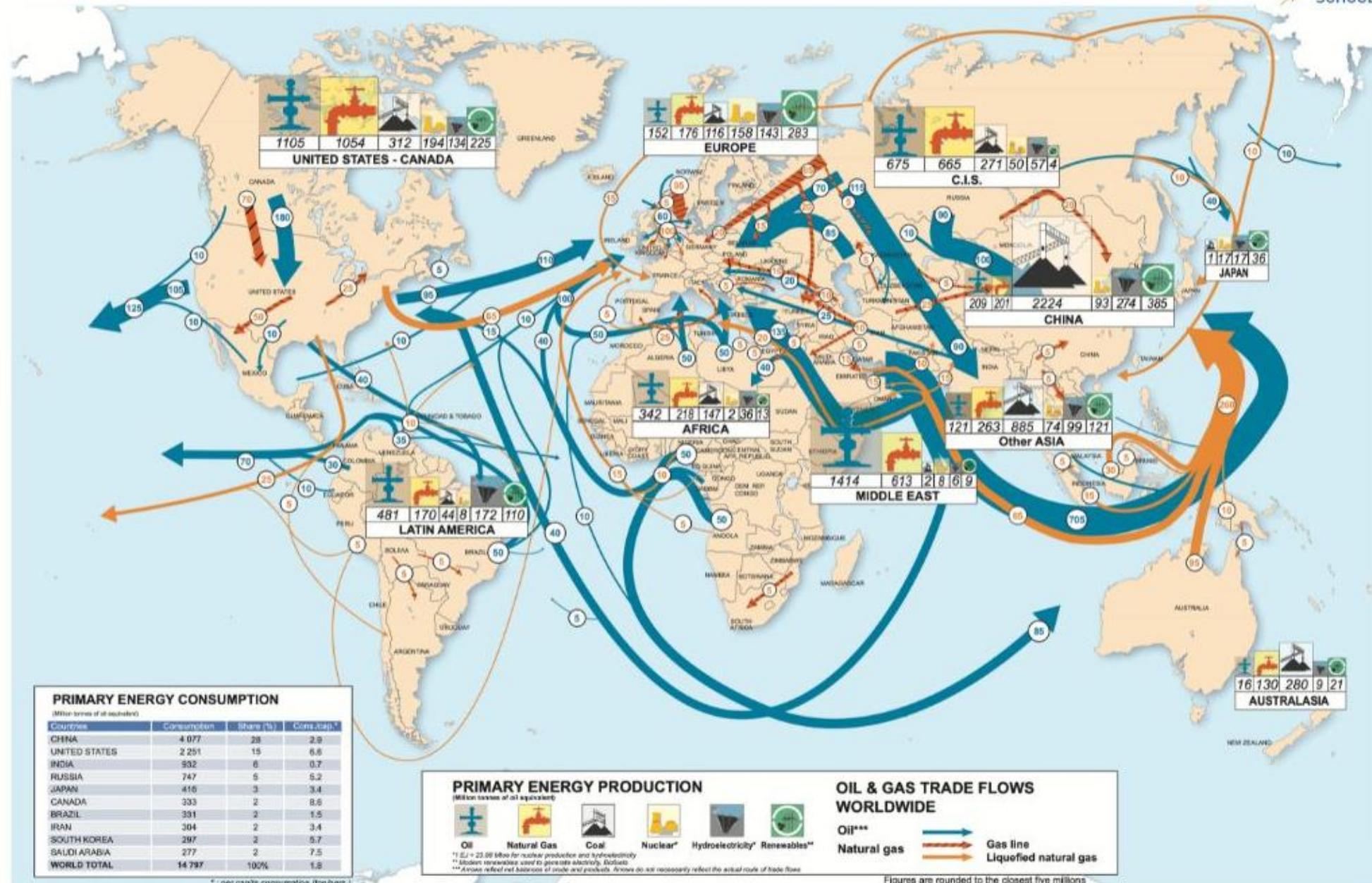


# How trade flows will be reshaped by 2032



SOURCES: UN COMTRADE, OXFORD ECONOMICS, IHS, WTO, BCG GLOBAL TRADE MODEL 2023, BCG ANALYSIS

# FORTUNE



Thank you for your attention!



# Geopolitics of Energy

Professor Athanasios Platias

November 2024



ΠΑΝΕΠΙΣΤΗΜΙΟ ΠΕΙΡΑΙΩΣ

UNIVERSITY OF PIRAEUS

The  
Economist

DECEMBER 6TH-12TH 2014

Economist.com

Technology Quarterly  
Shinzo Abe's last chance  
Boost your business with a drone  
P.D. James, queen of the sleuths  
Our books of the year

## Sheikhs v shale

The new economics of oil



Real oil prices (\$ per barrel)

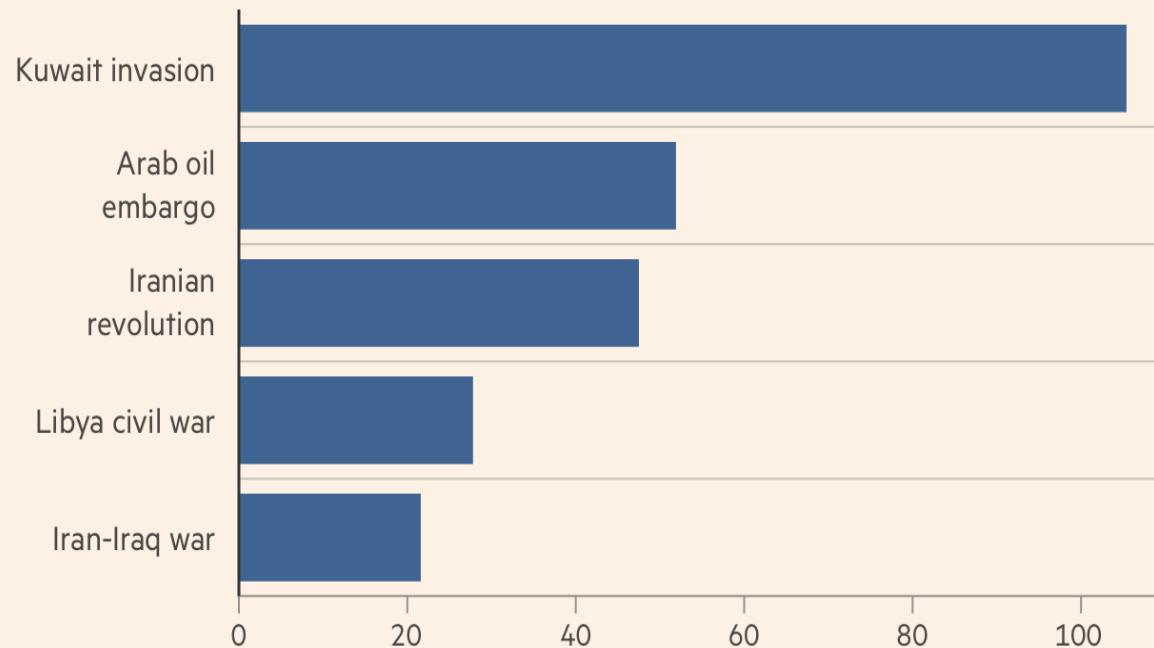


FINANCIAL TIMES

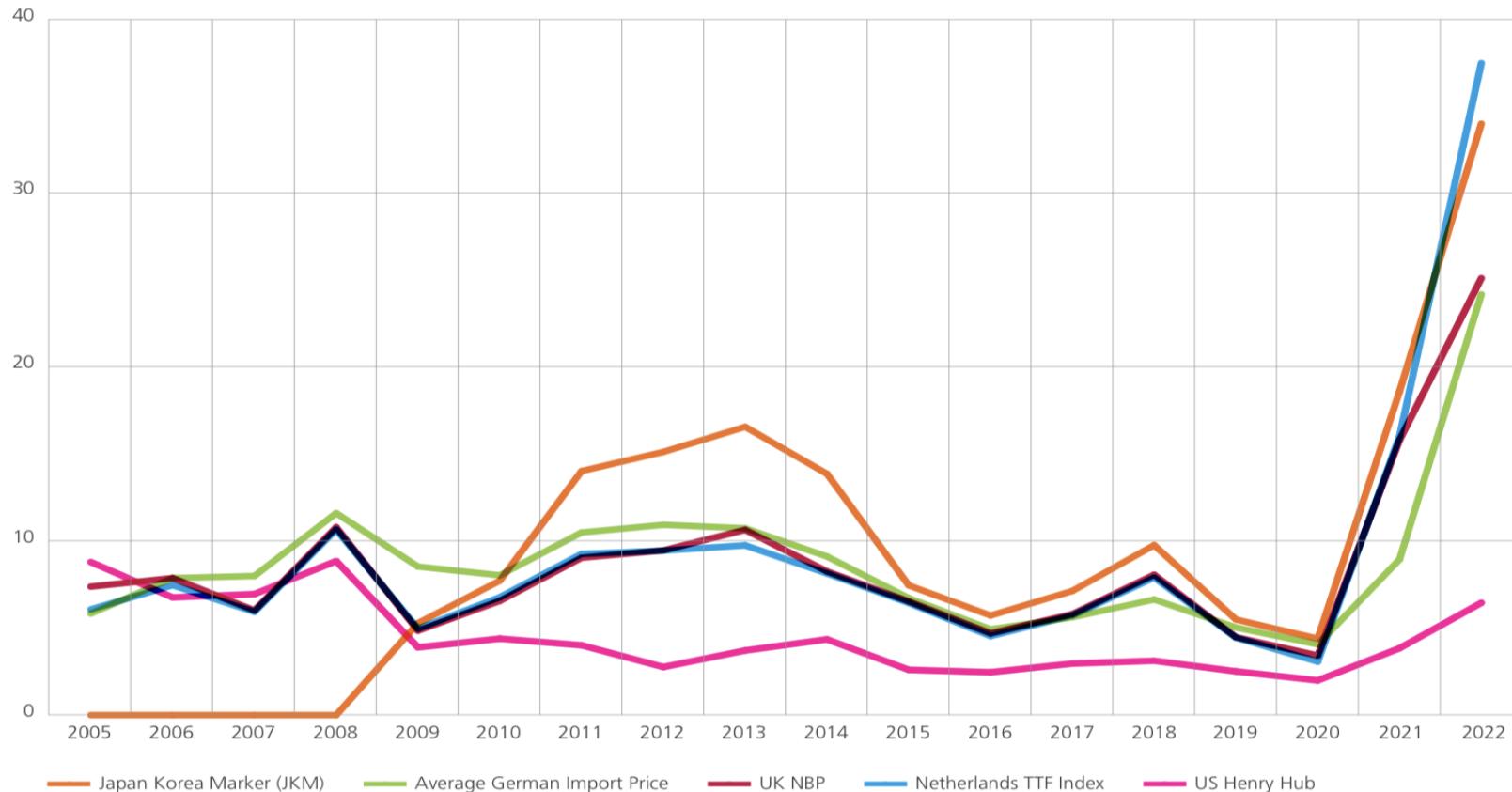
Source: World Bank, Bloomberg • Brent crude price deflated by US CPI

## Past oil shocks have caused big price jumps

% change in average monthly oil prices three months after the onset



\$/mmBTU



# *Oil a New Soviet Weapon In Economic and Political Offensive Against West*

**U.S. Moving Toward Policy Revision to Meet  
Threat of Reds' Increased Production and Exports  
—Officials Uncertain of Main Danger of Barter  
Deals That Open Way to Infiltration.**

By RAYMOND P. BRANDT  
Chief Washington Correspondent of the Post-Dispatch.

WASHINGTON, June 3.

SHARPLY INCREASED PRODUCTION and steadily rising exports of Russian oil have confirmed fears in American official and private circles that the Kremlin has begun an economic and political offensive against the West with petroleum as a powerful weapon.

In the words of one official, "Oil is Russia's largest, easiest and most flexible export." Both in production and marketing, the Communists have decided advantages over the competitive, capitalistic producers, who have billions of dollars invested in the overseas trade.

Fidel Castro's seizure of American-owned refineries in Cuba to process Russian crude oil dramatized the need for a new Ameri-

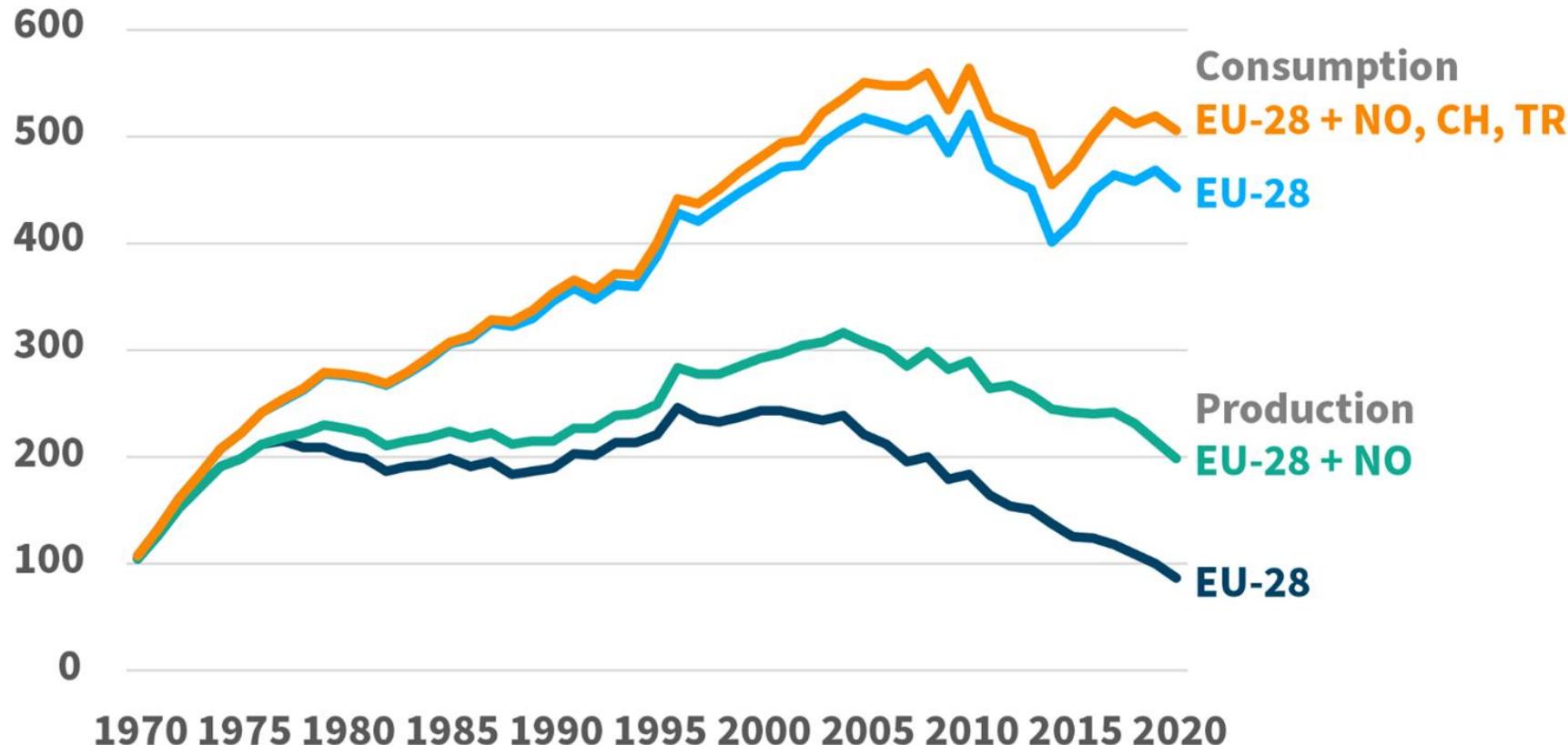
tions to maintain their refusal to lend money to foreign governments for the extraction of oil. The World Bank, in which the United States has the largest minority interest, is maintaining this position on its loans, and the Development Loan Fund, an affiliate of the International Co-operation Administration, has made no such outlays.

The Export-Import Bank, a govern-

For many decades, debate has raged about how much political power Moscow would gain from Europe's importing oil and natural gas from the Soviet Union and now Russia, as in this article from 1961.

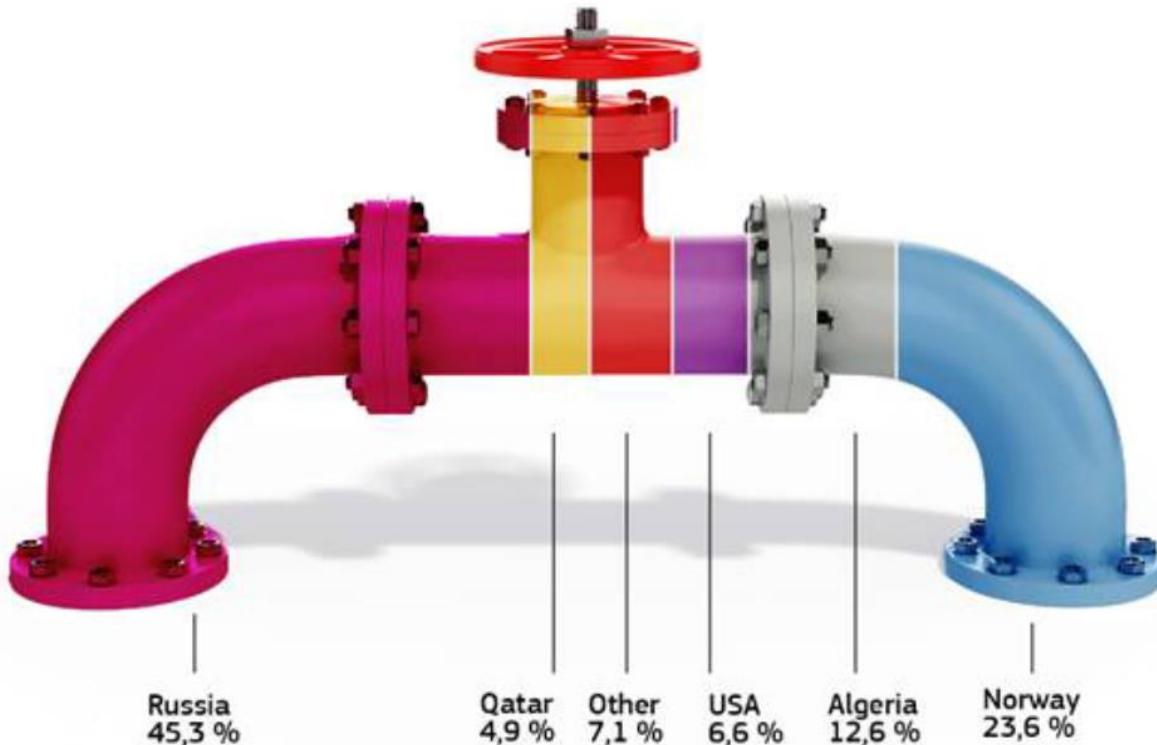
# Europe's Gas Supply and Demand Balance

billion cubic meters (bcm)

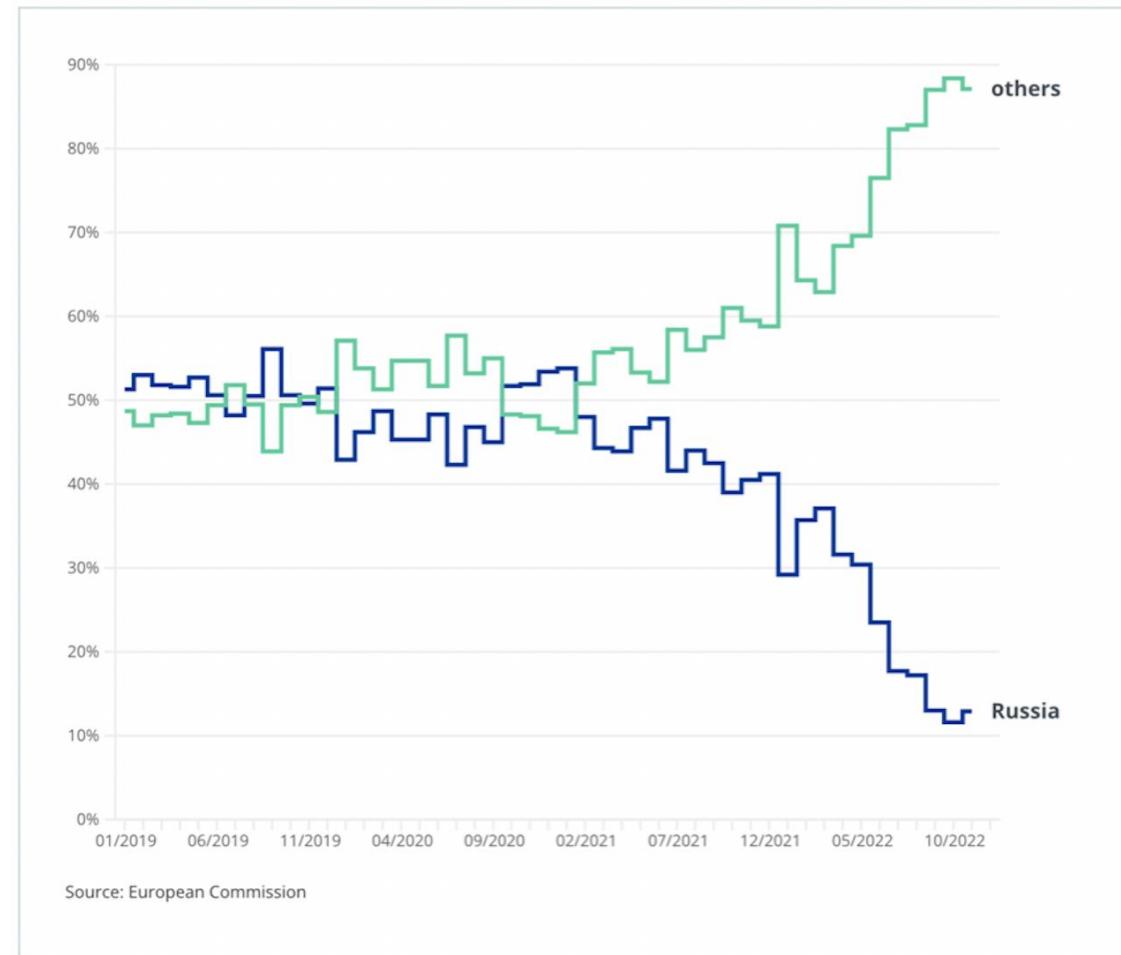


Source: BP Statistical Review of World Energy, July 2021.

## Share in EU natural gas imports, 2021



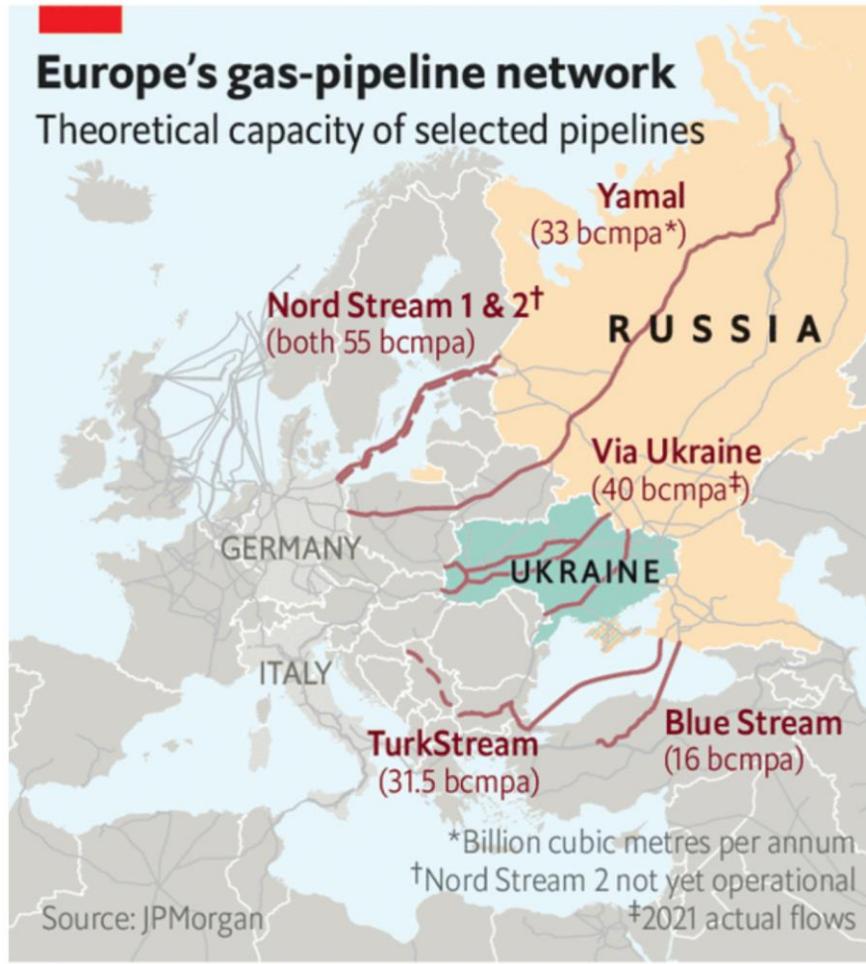
Source: European Commission



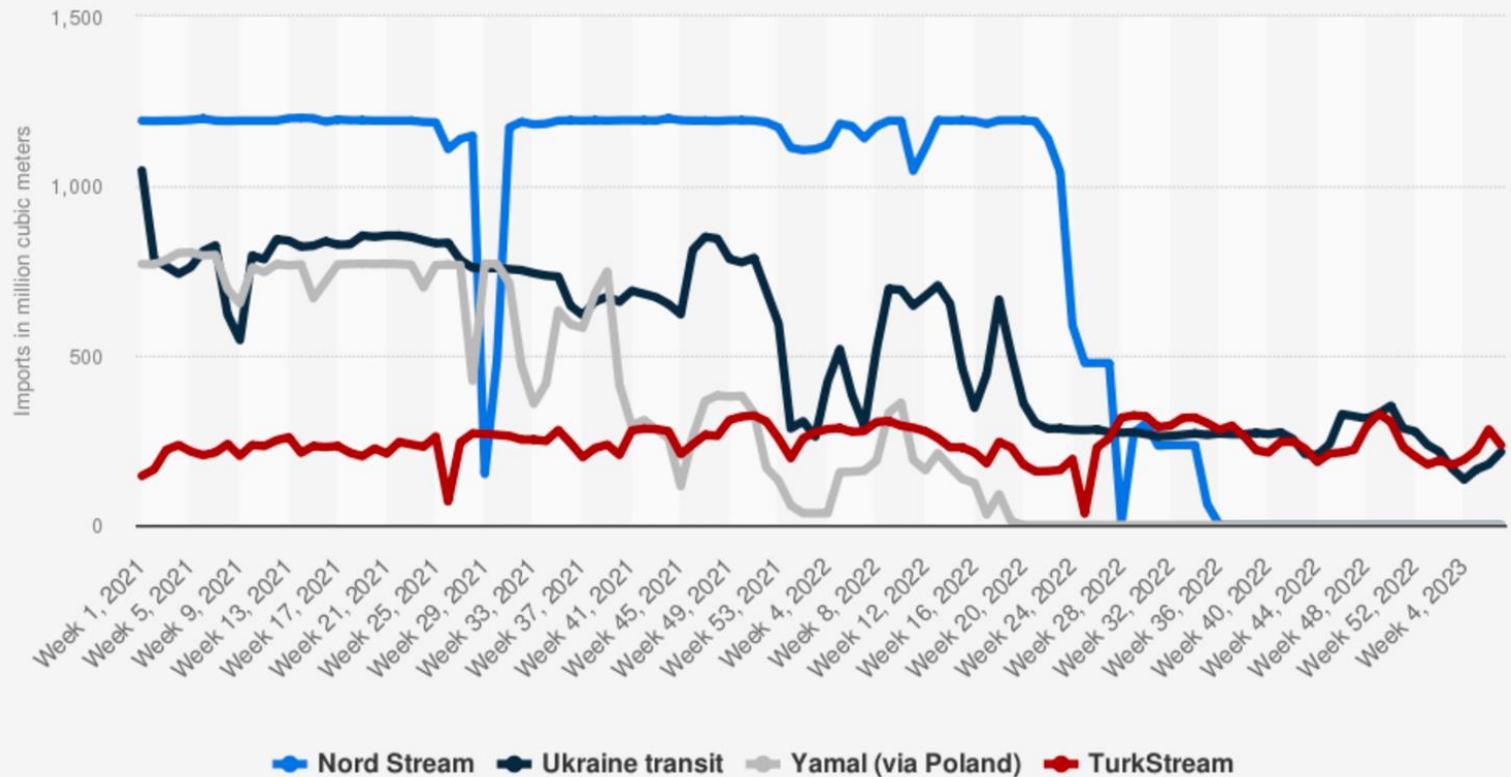
The EU's diversification away from Russian gas

## Europe's gas-pipeline network

Theoretical capacity of selected pipelines



**Natural gas import volume from Russia in the European Union (EU) and the United Kingdom (UK) from week 1, 2021 to week 7, 2023, by exporting route (in million cubic meters)**



Source: Bruegel; ENTSO-E



North stream 2: Putin's signature project is now destroyed



A specialized barge lays pipe under the Baltic Sea in 2019 for the controversial Nord Stream 2 pipeline, which is meant to carry additional Russian gas to Germany



Receiving station for the Nord Stream 2 gas pipeline, near Lubmin, Germany

# Mystery leaks reported from Nord Stream gas pipelines

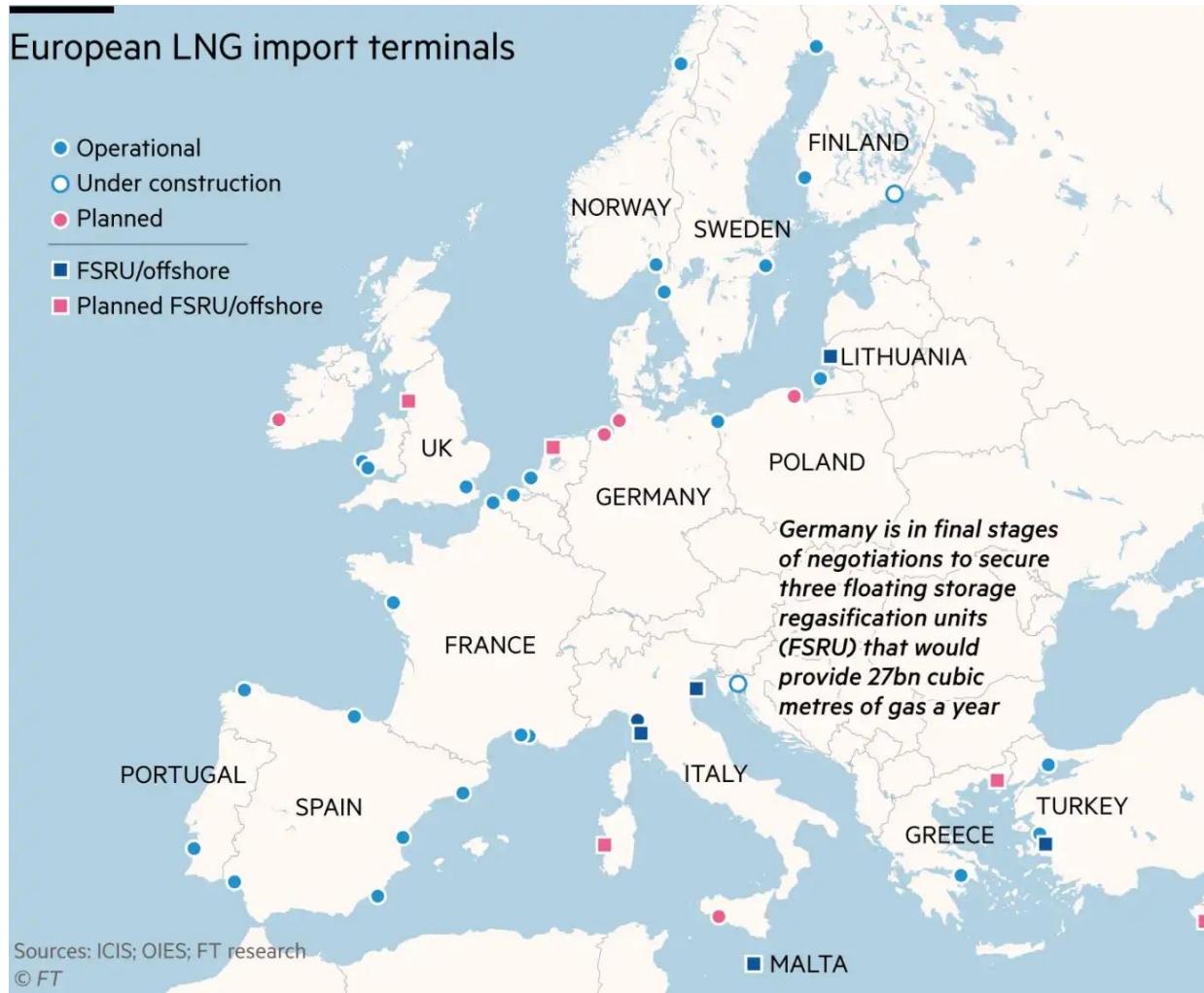


Sources: European Network of Transmission System Operators for Gas (ENTSOG); Danish and Swedish maritime authorities  
Prasanta Kumar Dutta | Reuters, Sept. 27, 2022



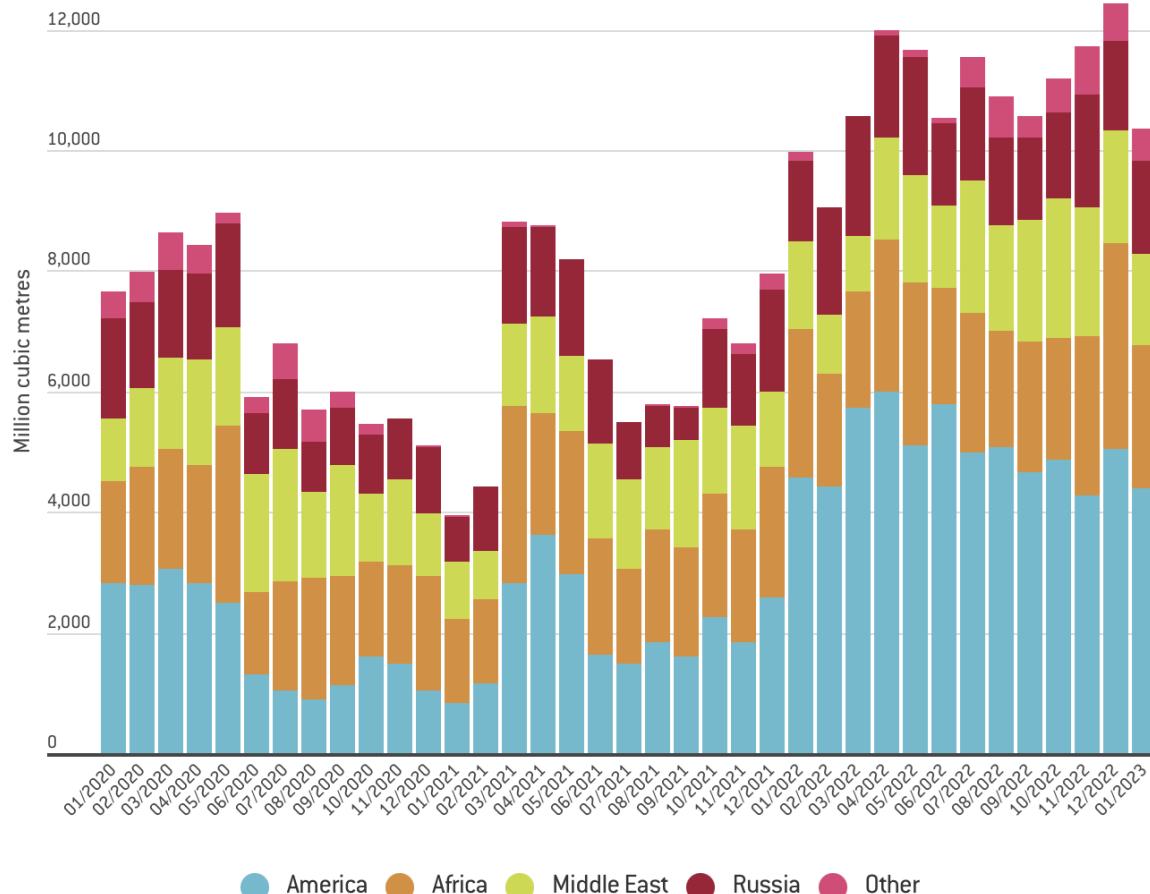
Gas leaking from the Baltic pipeline after the September 2022 explosion

## European LNG import terminals





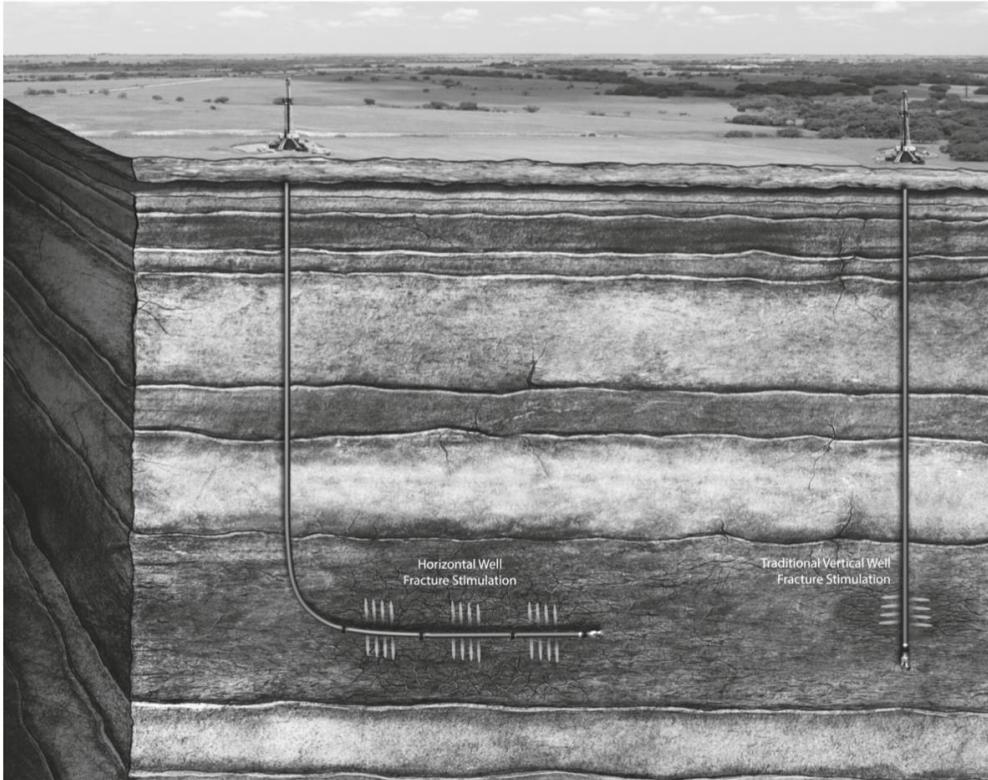
The Gate Terminal in the Netherlands is a critical entry point for liquefied natural gas, a vital fuel for Europe. Gate Terminal



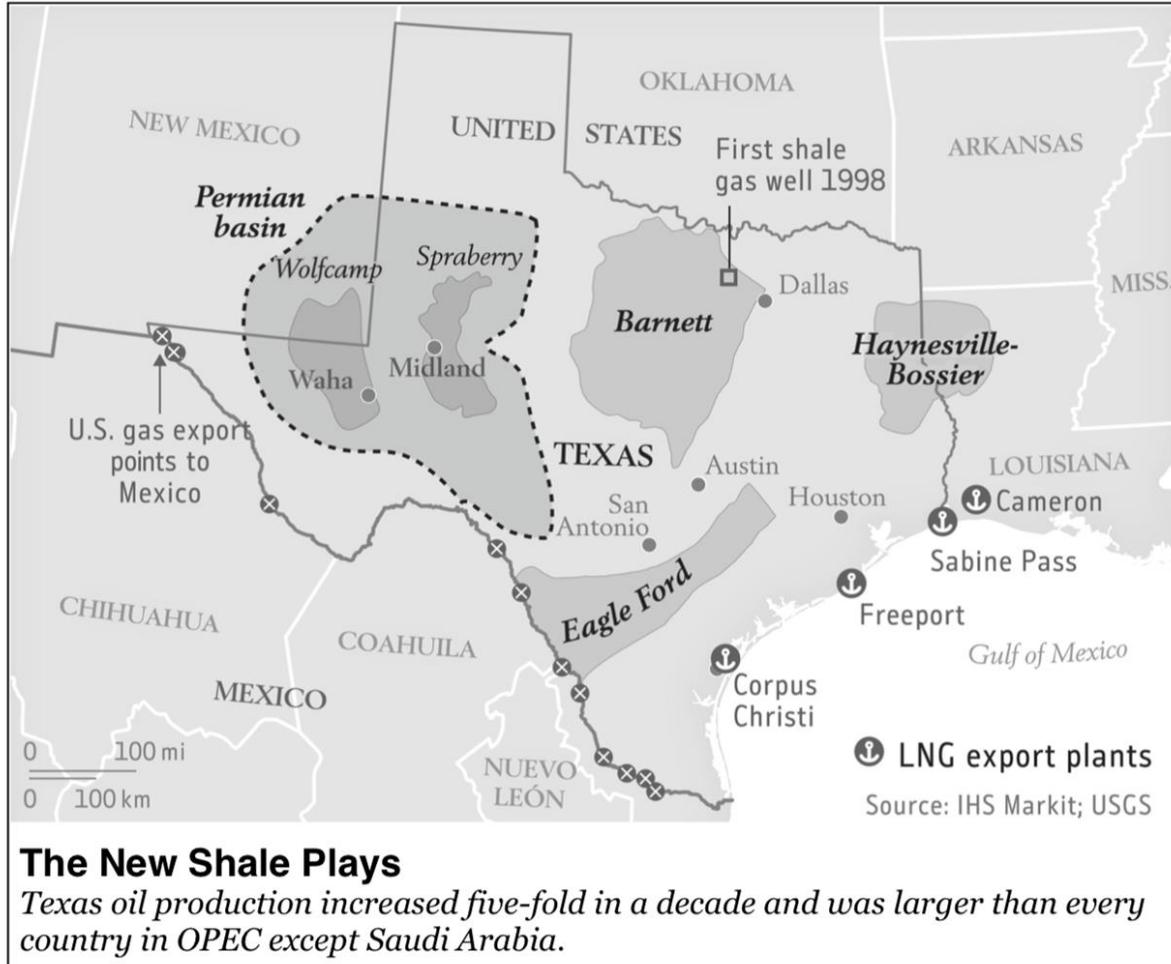
EU27 LNG monthly imports by region of origin



A floating storage and regasification unit. The ships offer the fastest way for Europe to boost LNG imports © Claudine Klodien/Alamy



The Permian Basin in West Texas and New Mexico is now the world's second-largest producing area, propelling the United States to become the world's largest oil producer in 2018, ahead of Saudi Arabia and Russia. Horizontal drilling taps multiple zones containing shale oil.





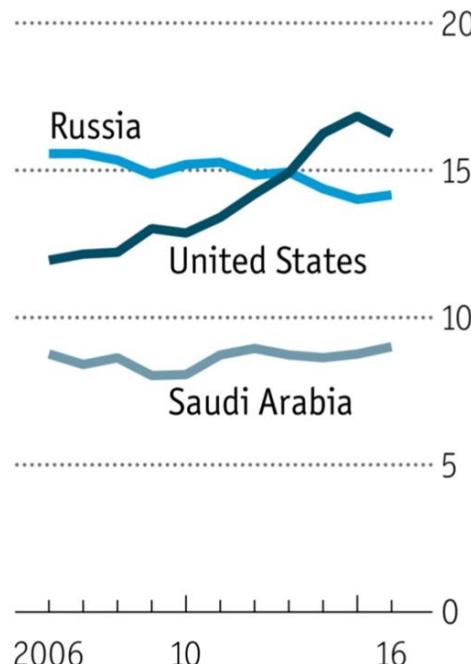
Ships at Cheniere Energy's Sabine Pass terminal being loaded with liquefied natural gas. Cheniere



In 2016, a tanker passed through the expanded Panama Canal carrying the first cargo of U.S. liquefied natural gas (LNG) to China. Oil and gas exports now loom large in U.S.-China trade battles.

# Pumped

Oil and gas production  
As % of world total



Source: BP

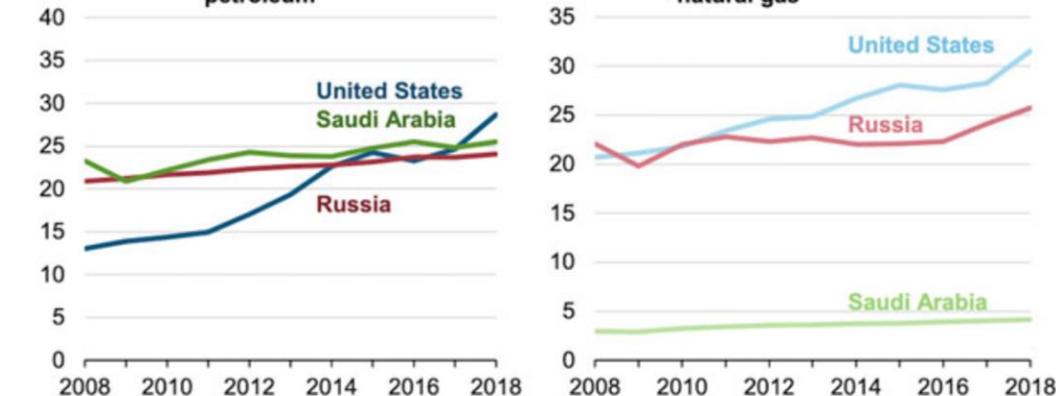
## Estimated petroleum and natural gas production in selected countries

quadrillion British thermal units

petroleum

natural gas

eia



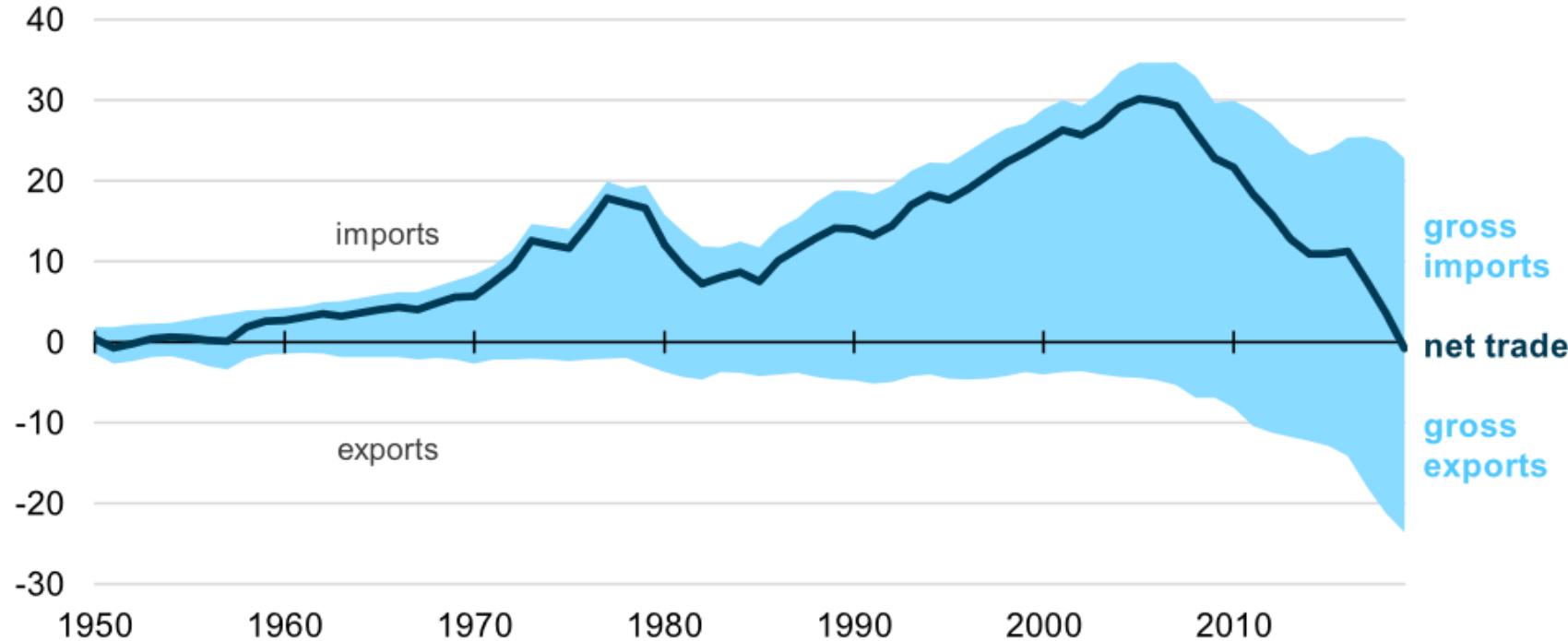
**Fig. 11.1** Estimated petroleum and natural gas production in selected countries  
(Source U.S. Energy Information Administration, based on International Energy Statistics. Note Petroleum includes crude oil, condensate, and natural gas plant liquids)

# U.S. total energy exports exceed imports in 2019 for the first time in 67 years

## U.S. total energy trade (1950-2019)

quadrillion British thermal units

bia



Source: U.S. Energy Information Administration, *Monthly Energy Review*, Tables 1.4a, 1.4b, and 1.4c



Russia: Pivoting to the East



*The Power of Siberia is the first gas pipeline built to supply Russian gas to China. Image courtesy of Gazprom.*



*Gas supply to China through the Power of Siberia pipeline was started in December 2019. Image courtesy of Gazprom.*

# Piloting to the East

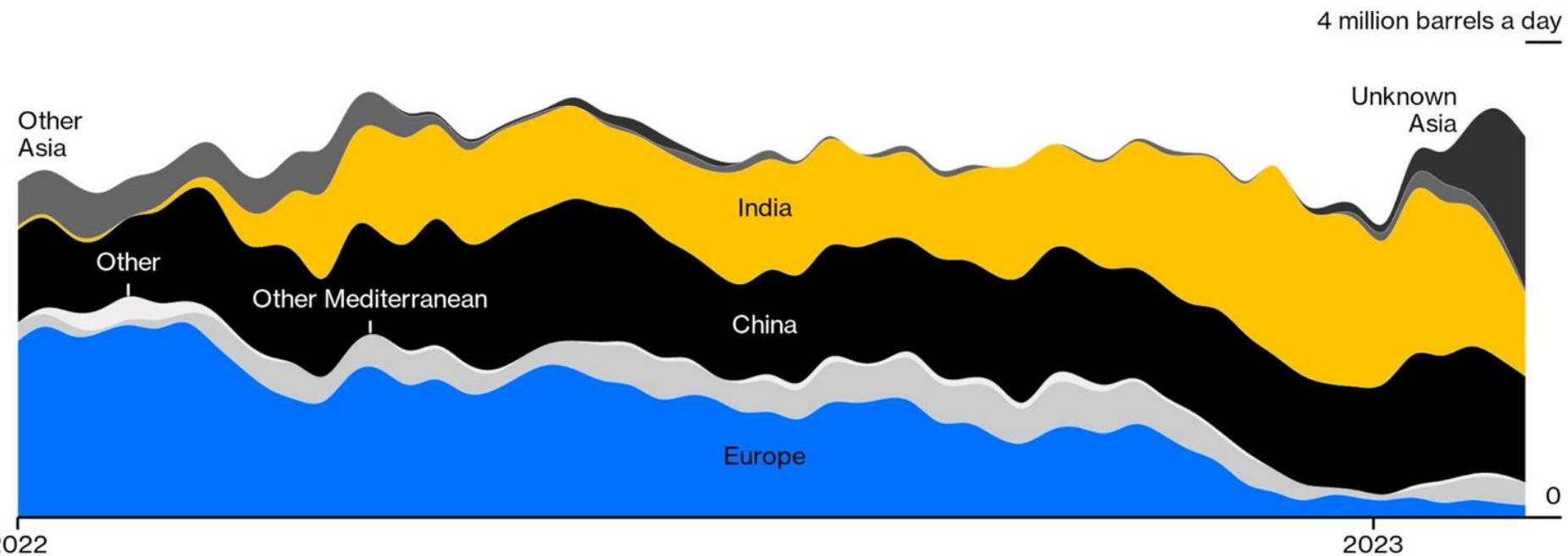


Trans-Mongolian Route for Power of Siberia 2



## Buyers of Russia's Crude Oil

India has provided the most important lifeline for Moscow's crude sales



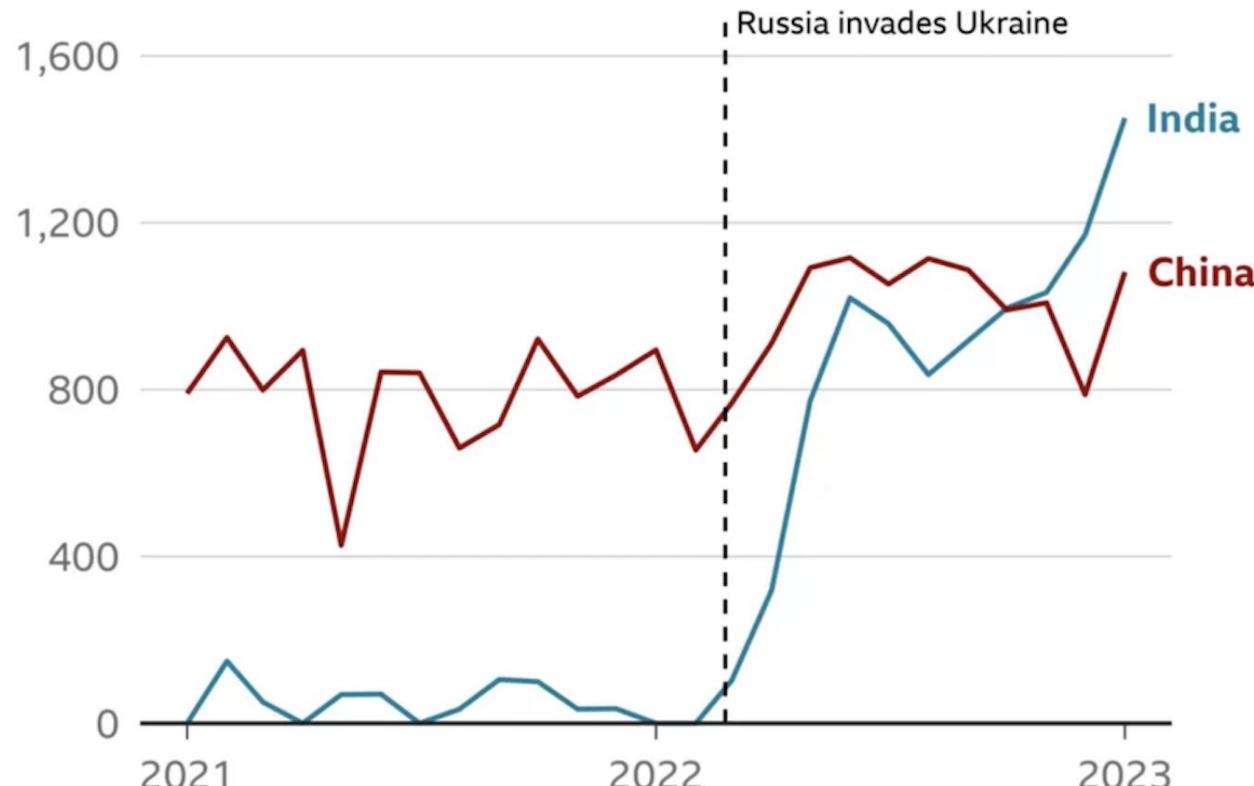
Source: Vessel tracking data monitored by Bloomberg

Note: Four-week average flows of Russian crude. Recent history suggests that most of the barrels heading to "Unknown Asia" destinations will end up in India, with some heading to China. "Other Med." is mostly shipments to Turkey.

Bloomberg Opinion

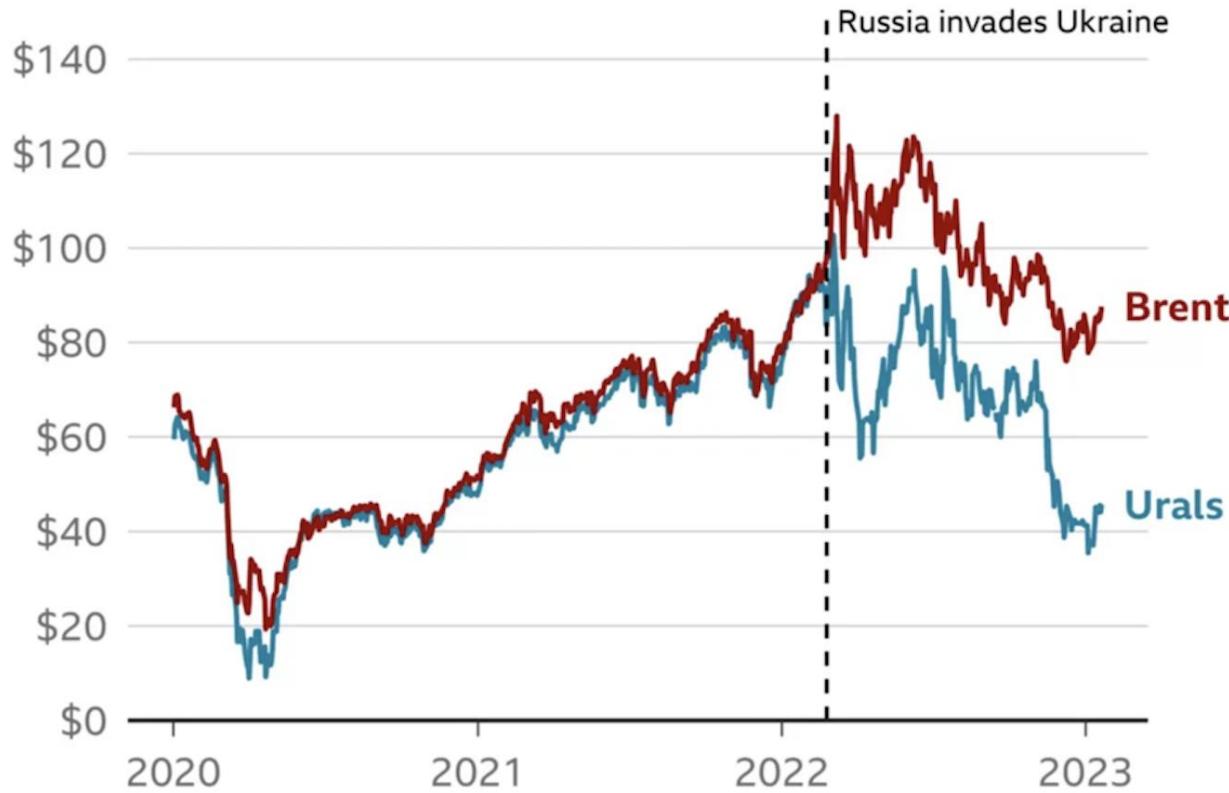
# Russia oil exports to India and China

Thousands of barrels per day



# Price of Russian oil dropping faster than Brent

US dollars per barrel



# Where Turkey gets its gas

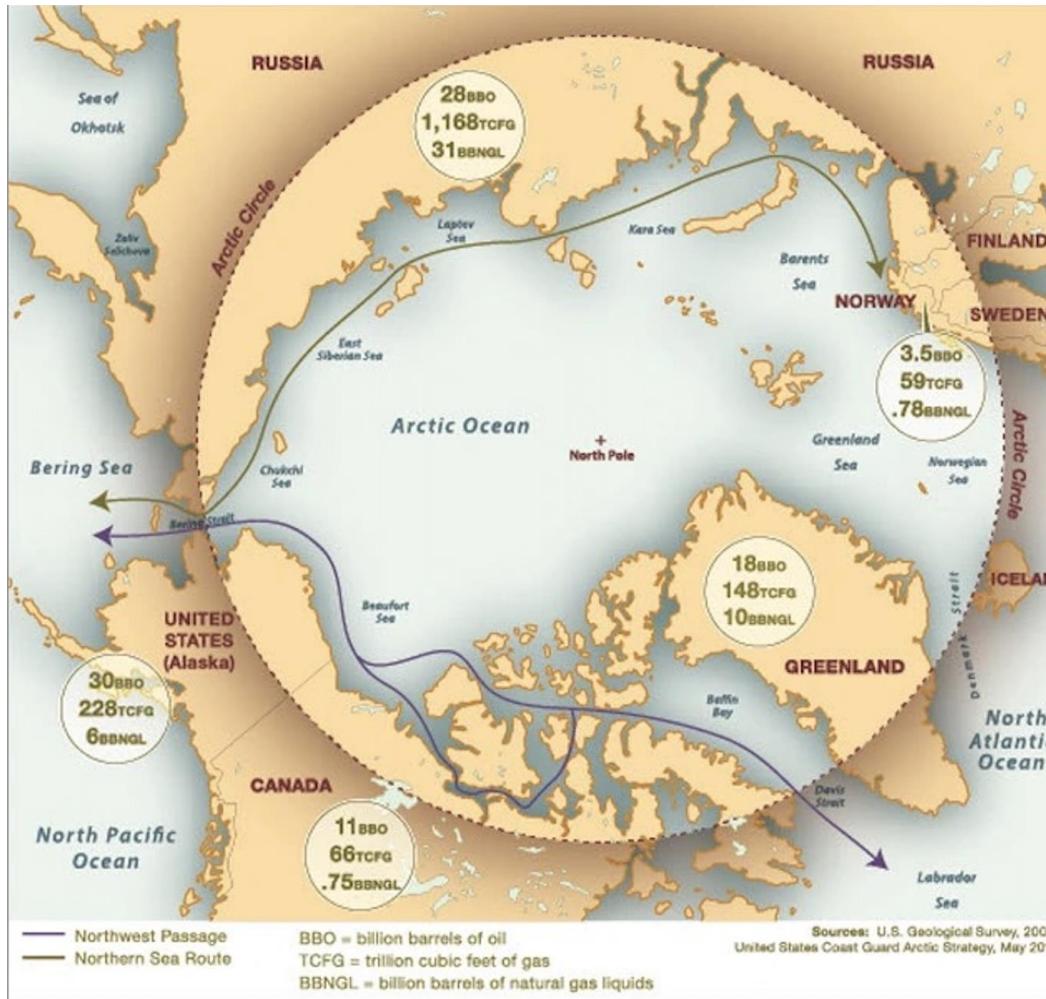


Source: Middle East Eye

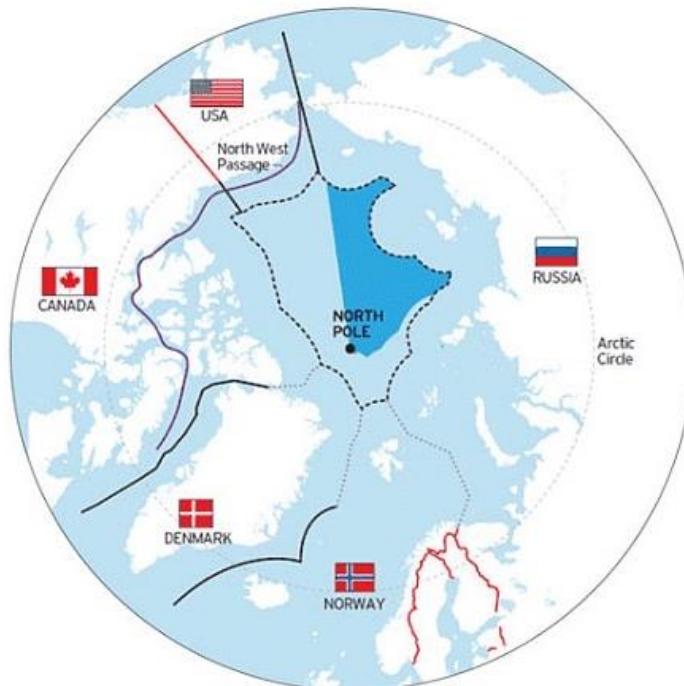


At the “*end of the land*” on a remote Arctic peninsula. Russia will become one of the world’s major exporters of LNG, capable of cutting through the ice eastward to Asia or westward to Europe <sup>35</sup>

# Estimated Undiscovered Oil and Gas in the Arctic and Potential Trade Routes



## Russian Continental Shelf Claims in the Arctic



Resource  
competition  
in the Arctic

Source: Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, United Nations, "Outer limits of the continental shelf beyond 200 nautical miles from the baselines: Submissions to the Commission: Submission by the Russian Federation," at [www.un.org/depts/los/clcs\\_new/submissions\\_files/rus01/RUS\\_CLCS\\_01\\_2001\\_LOS\\_2.jpg](http://www.un.org/depts/los/clcs_new/submissions_files/rus01/RUS_CLCS_01_2001_LOS_2.jpg).



11. The consequences of melting Arctic ice for shipping.



“Icebreaker gap” benefits Russia

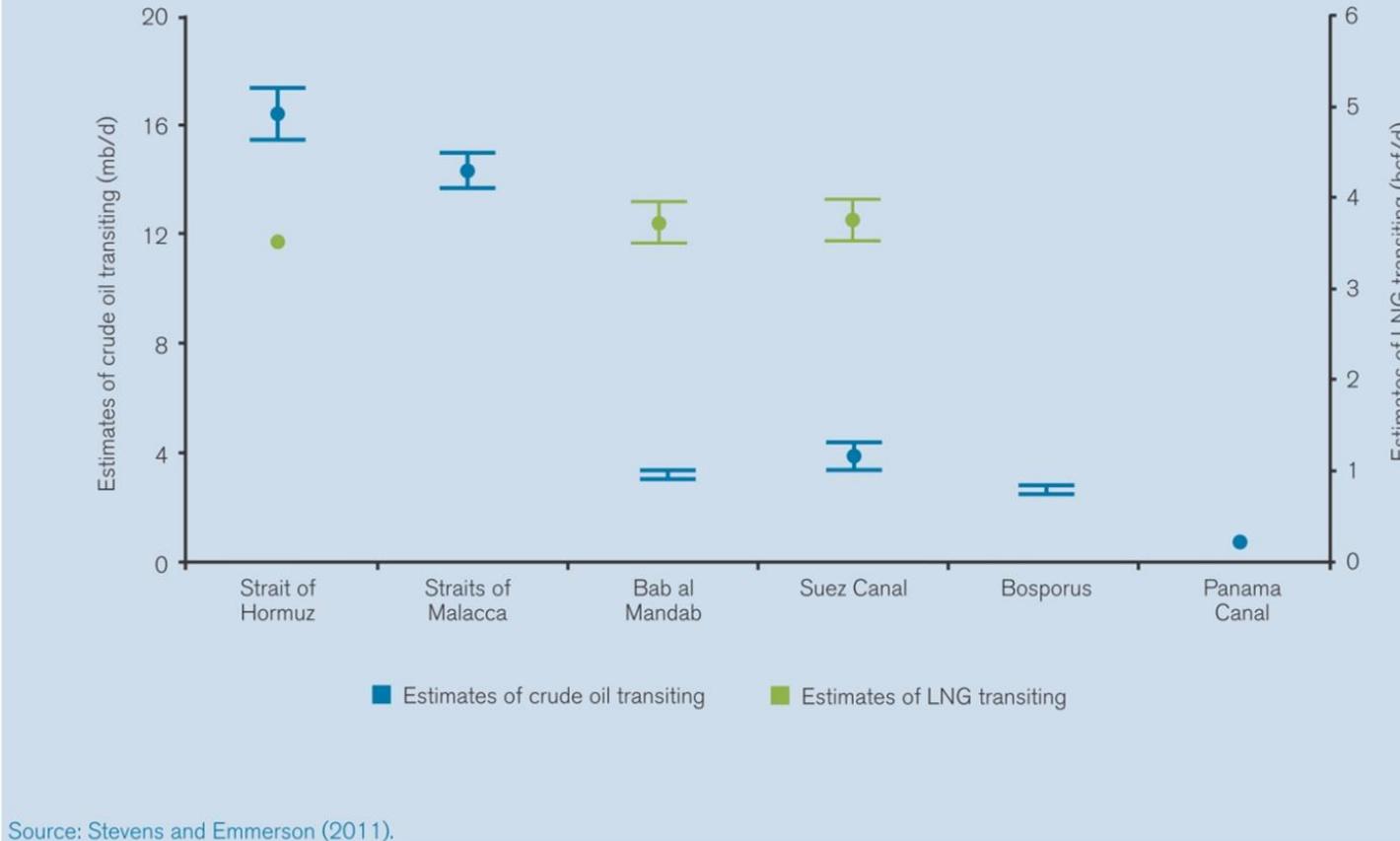


## Chokepoints and U.S. Encroachment





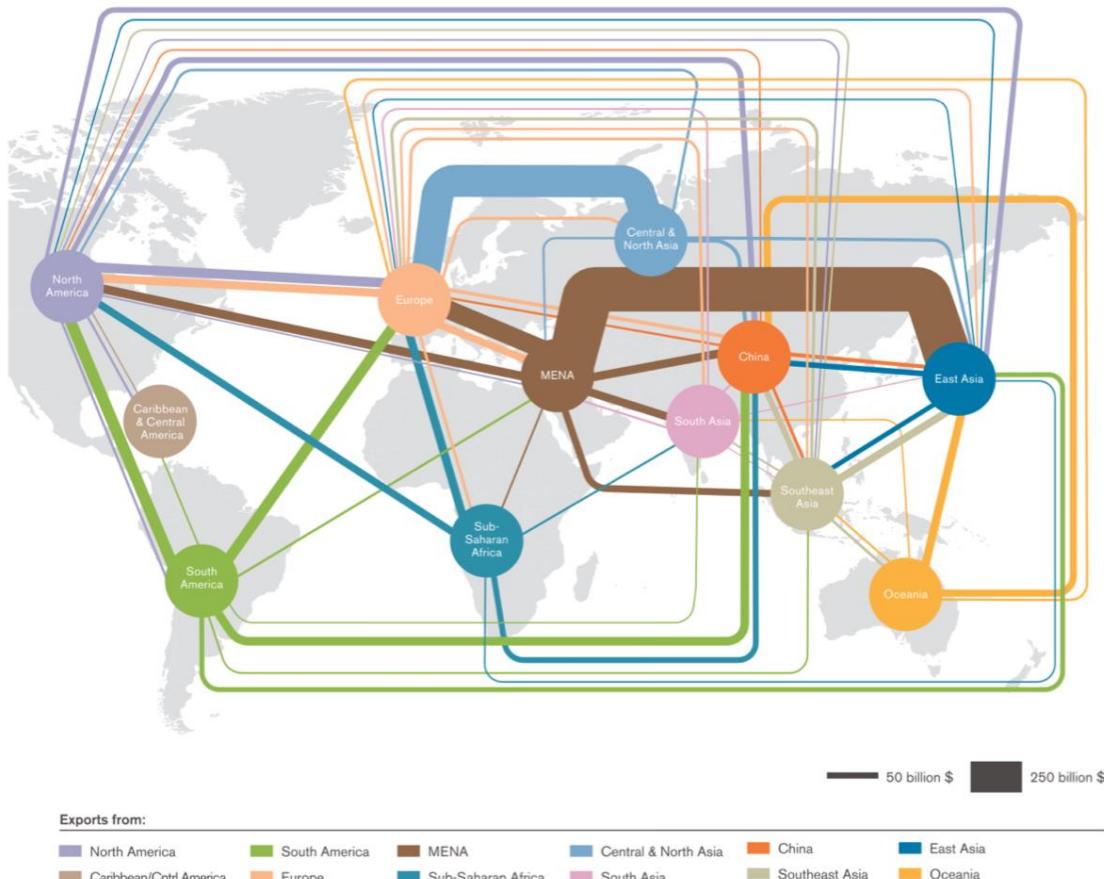
Figure 4.13: Estimated volumes of oil and gas through key choke points, 2010



# Tanker damaged in attack off the straits of Hormuz

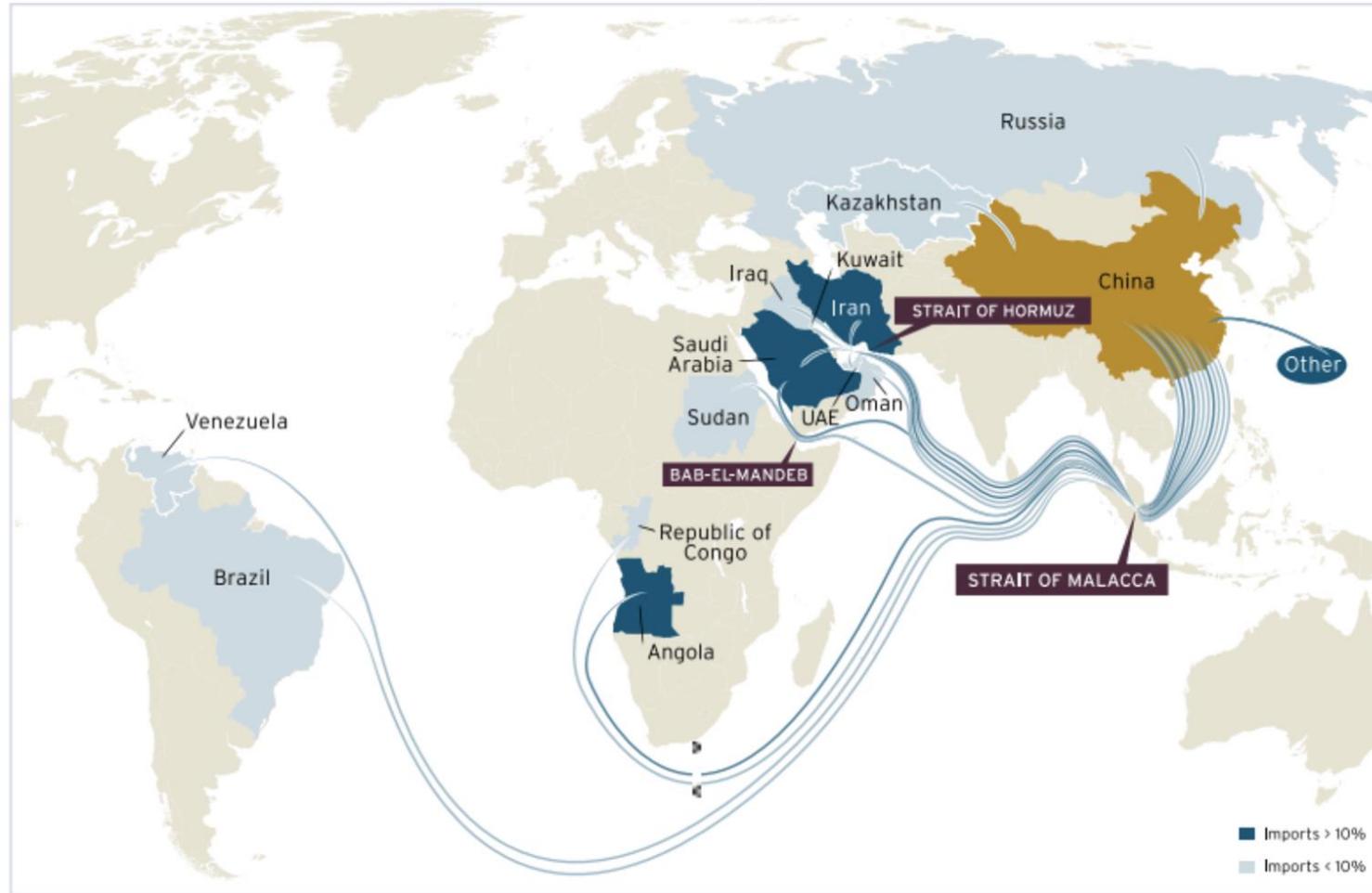


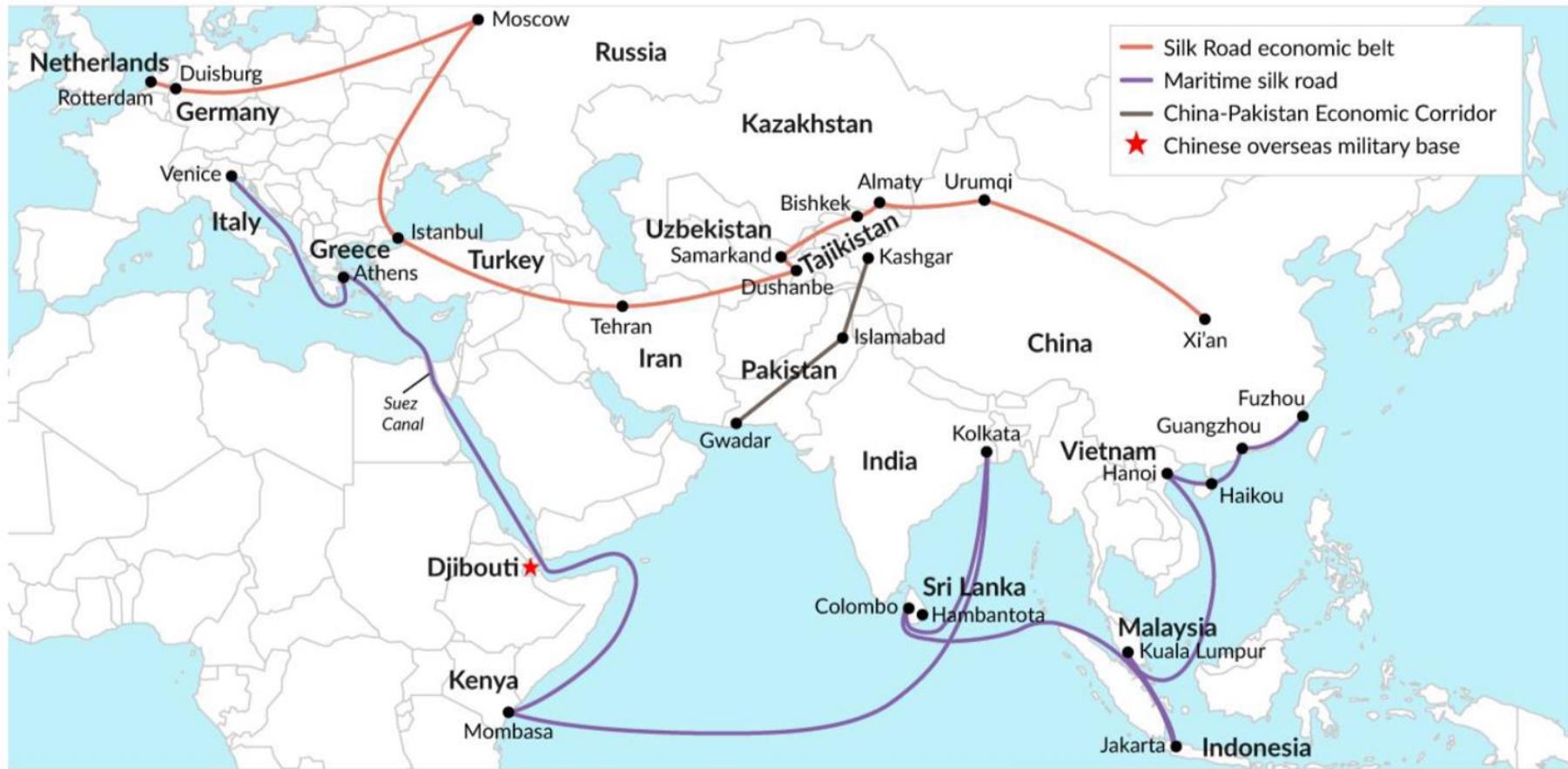
Figure 1.2: Resource trade between regions, by value, 2010



Sources: Chatham House Resource Trade Database, BACI, COMTRADE. Resource trade flows between regions worth more than 10 bn \$ in 2010.

# China imports: Trade vulnerability and the Malacca dilemma



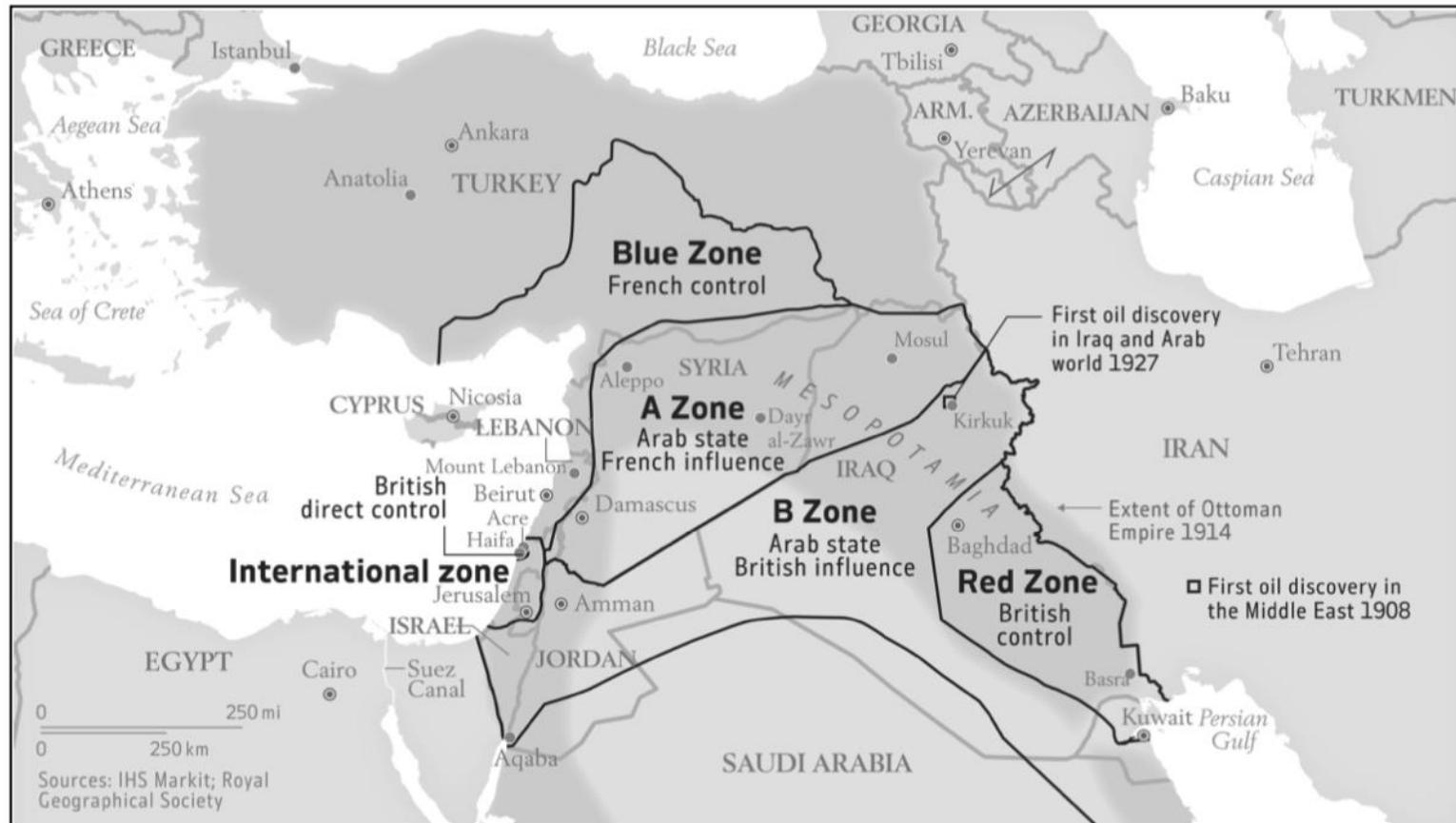


## China's Belt and Road Initiative

*Launched in 2013, the “BRI” aims to promote “connectivity” and reorder the global economy.*



Piraeus port as part of the maritime Silk Road

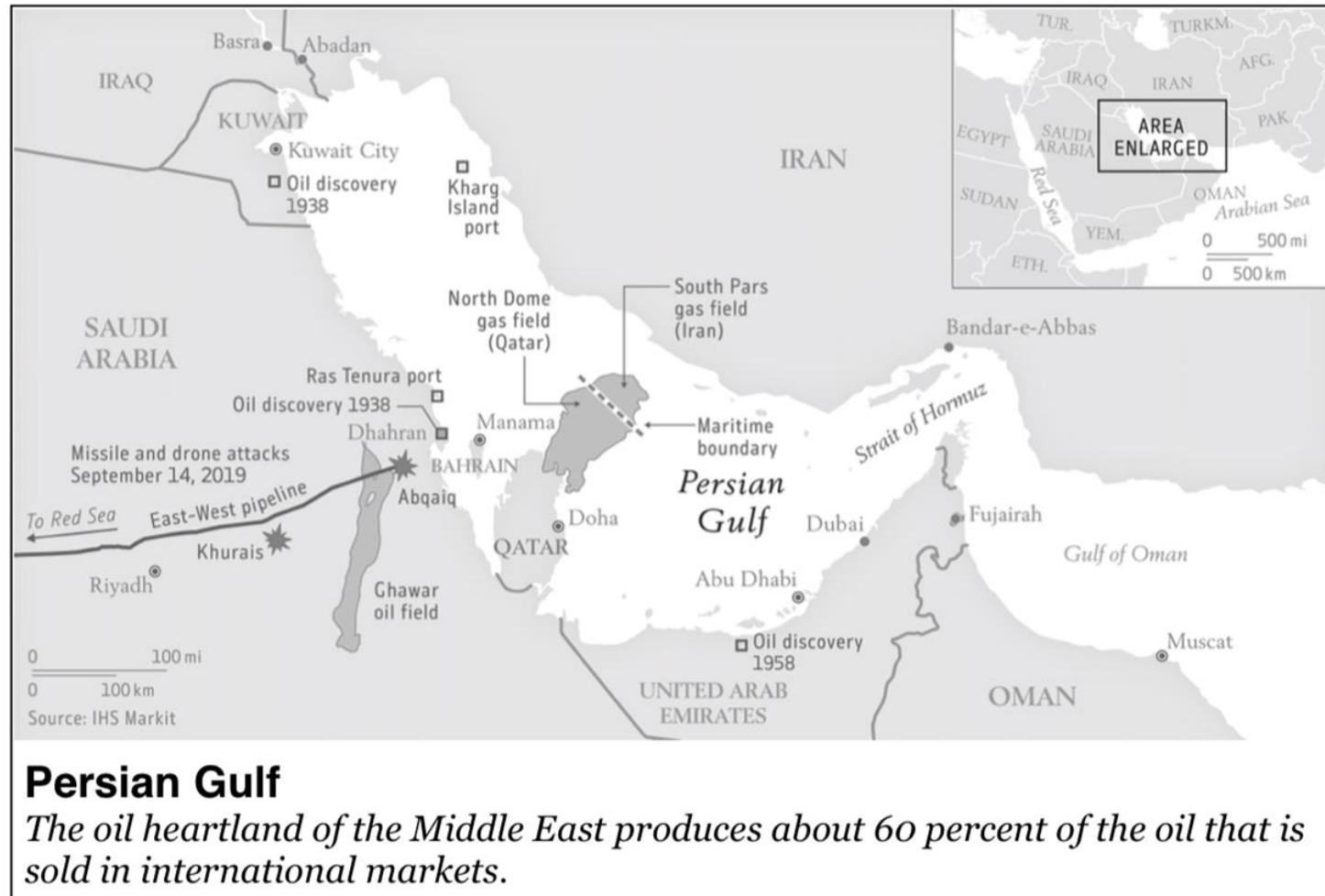


## Sykes-Picot Agreement 1916

*The British and French drafted this interim map during World War I for the Middle East after the end of the Ottoman Turkish Empire.*



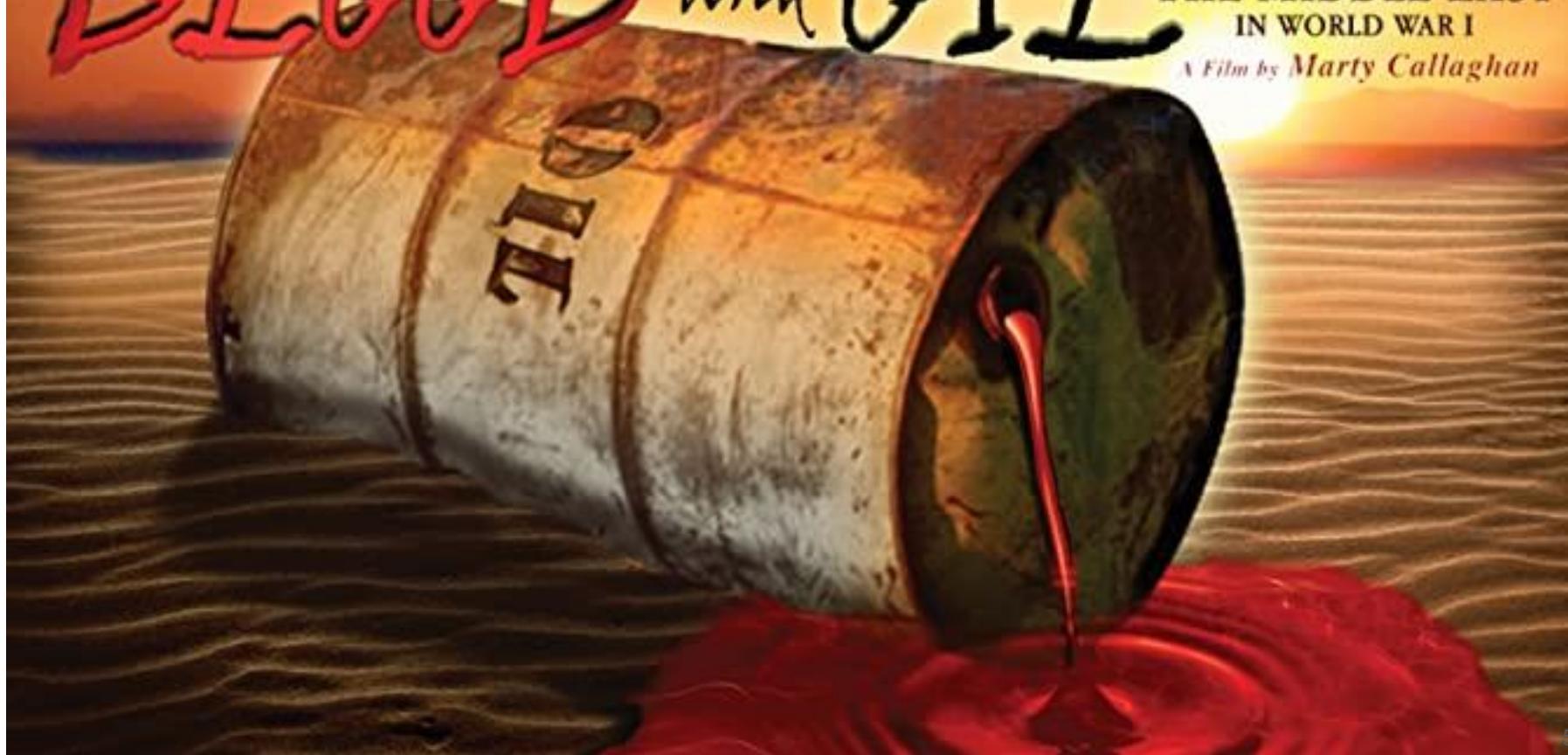
An ISIS jihadist in a 2014 propaganda video declares, "We've broken Sykes-Picot," as a bulldozer erases the border between Iraq and Syria. The U.S. defense secretary said ISIS's lightning offensive across Iraq was "beyond anything we've seen."





# BLOOD and OIL

THE MIDDLE EAST  
IN WORLD WAR I  
*A Film by Marty Callaghan*





Coalition forces enter Kuwait in March 1991. Asharq Al-Awsat

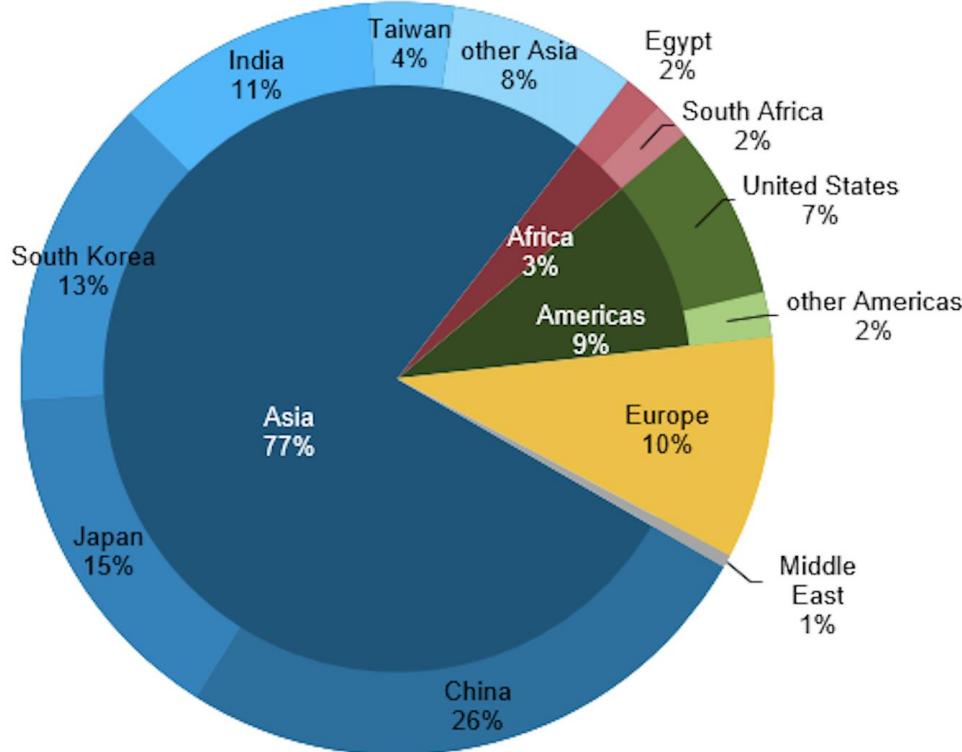


الإعلام الحربي  
عملة-الشهيد-ابوعقيل #

Houthi militants in Yemen cheer the launch of a ballistic missile aimed at Saudi Arabia. The Yemen civil war led to a huge humanitarian crisis.

# Aramco oil refineries damaged





Source: Graph by the U.S. Energy Information Administration, based on data from Global Trade

Tracker



Note: Totals may not add up because of independent rounding.

Saudi Arabia's crude oil exports by destination, 2020

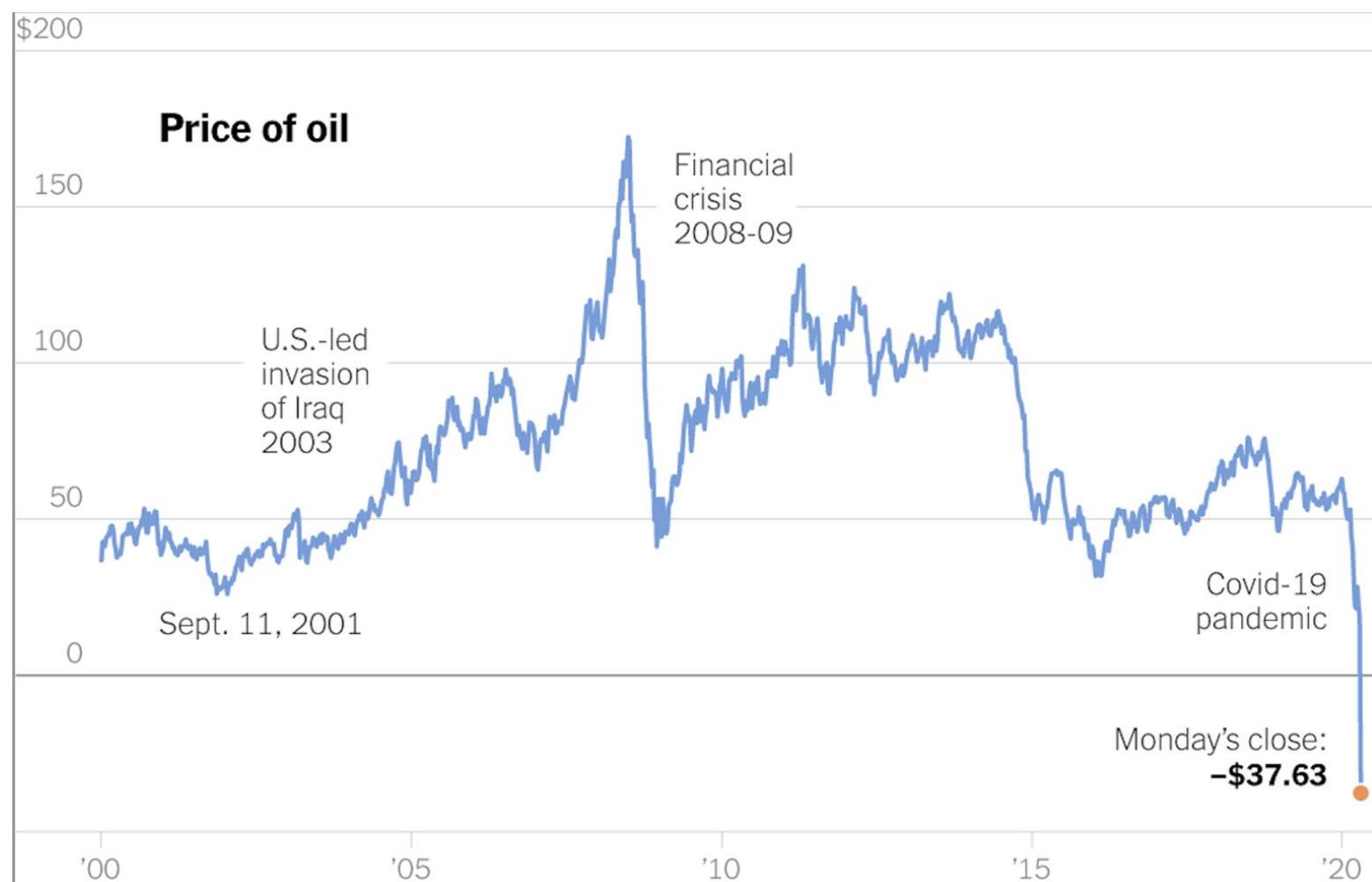
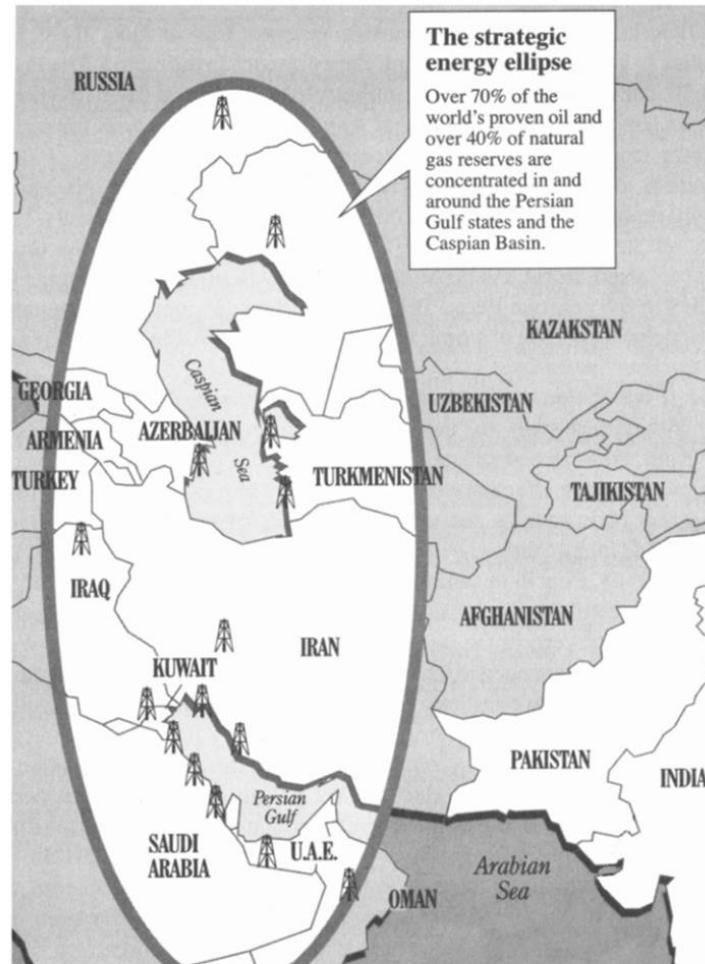
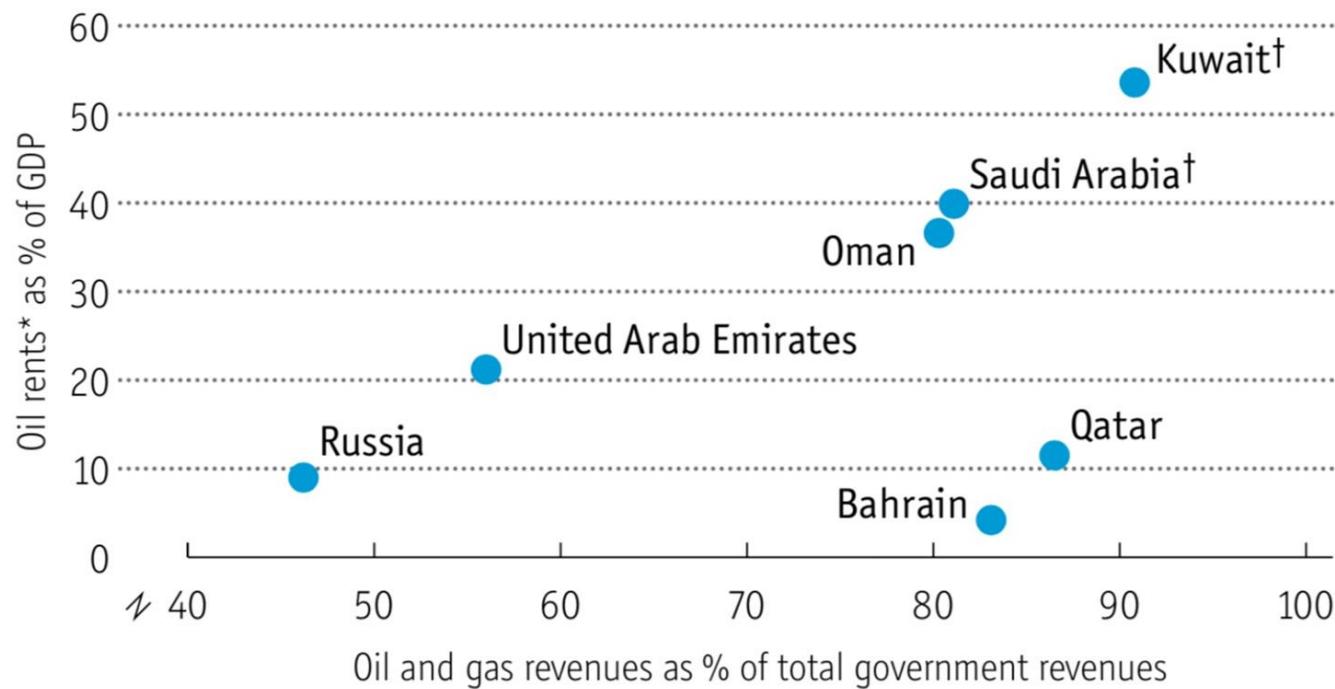


Figure 1: The Strategic Energy Ellipse



# Hooked on the black stuff

2012-16 averages



Sources: Haver Analytics; World Bank

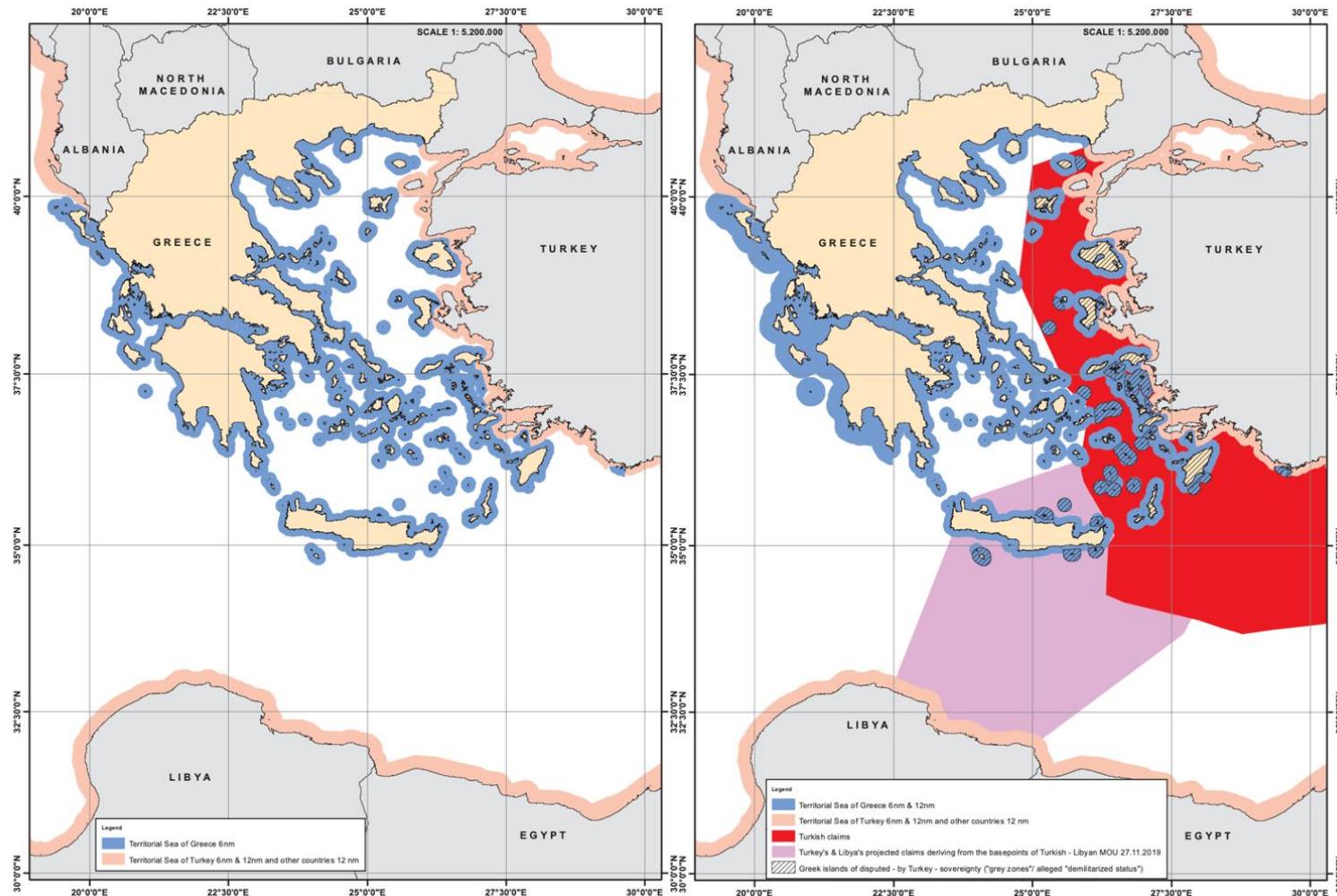
\*Sale price minus production cost

†Oil revenues only

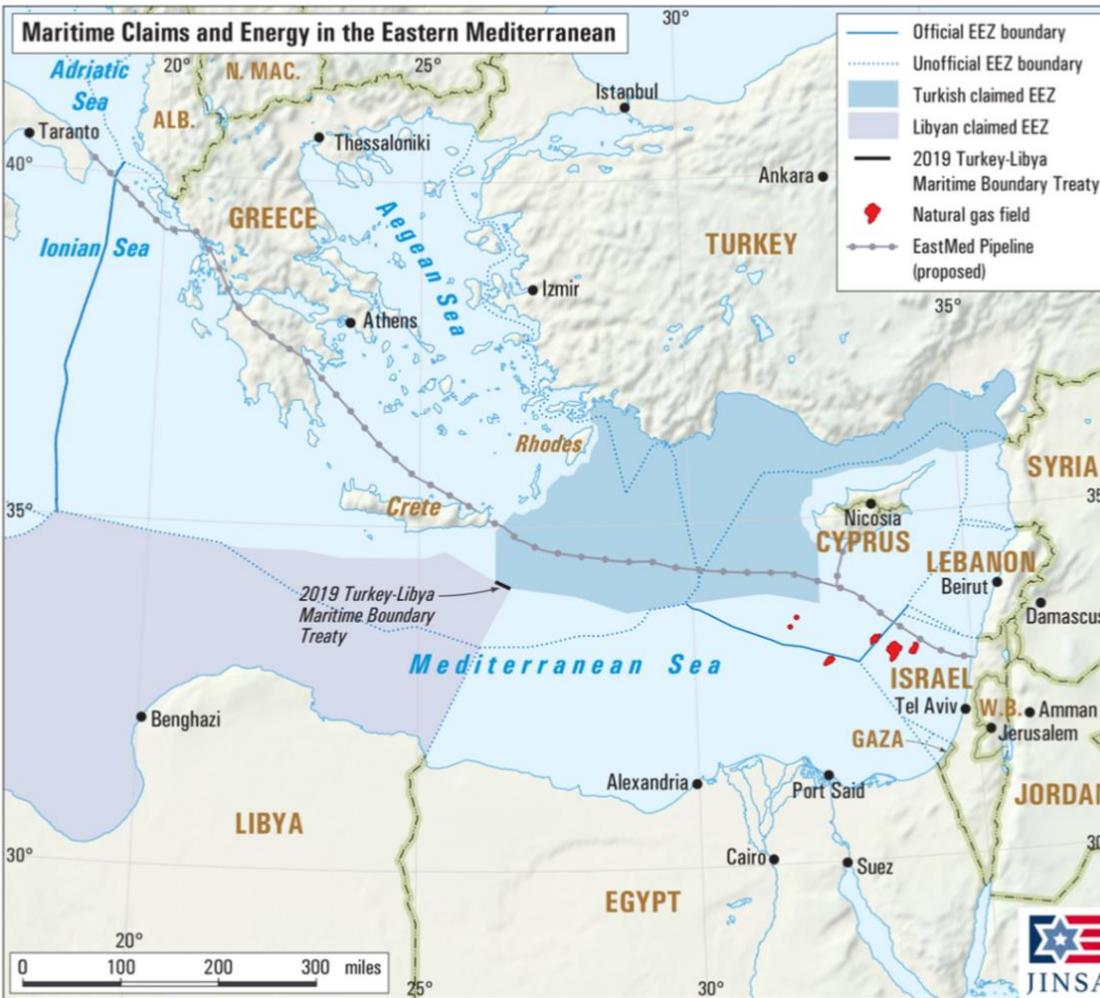


Israel's giant Leviathan natural gas field, started up at the end of 2019, marked the rise of the "*Eastern Med*" as a new energy province and possible exporter to Europe





Comparative mapping of Turkish claims/visions 1972-2022



# Offshore is the new frontier for wind power





Solar costs have fallen an extraordinary 85% over a decade, and deployment has grown enormously

# China supplied 70% of the world's solar cells



Workers are seen at a solar-panel maker in Hangzhou, Zhejiang province, on Aug. 26. Photo: IC



Thomas Edison's electric car failed to gain traction

# INSANE MODE

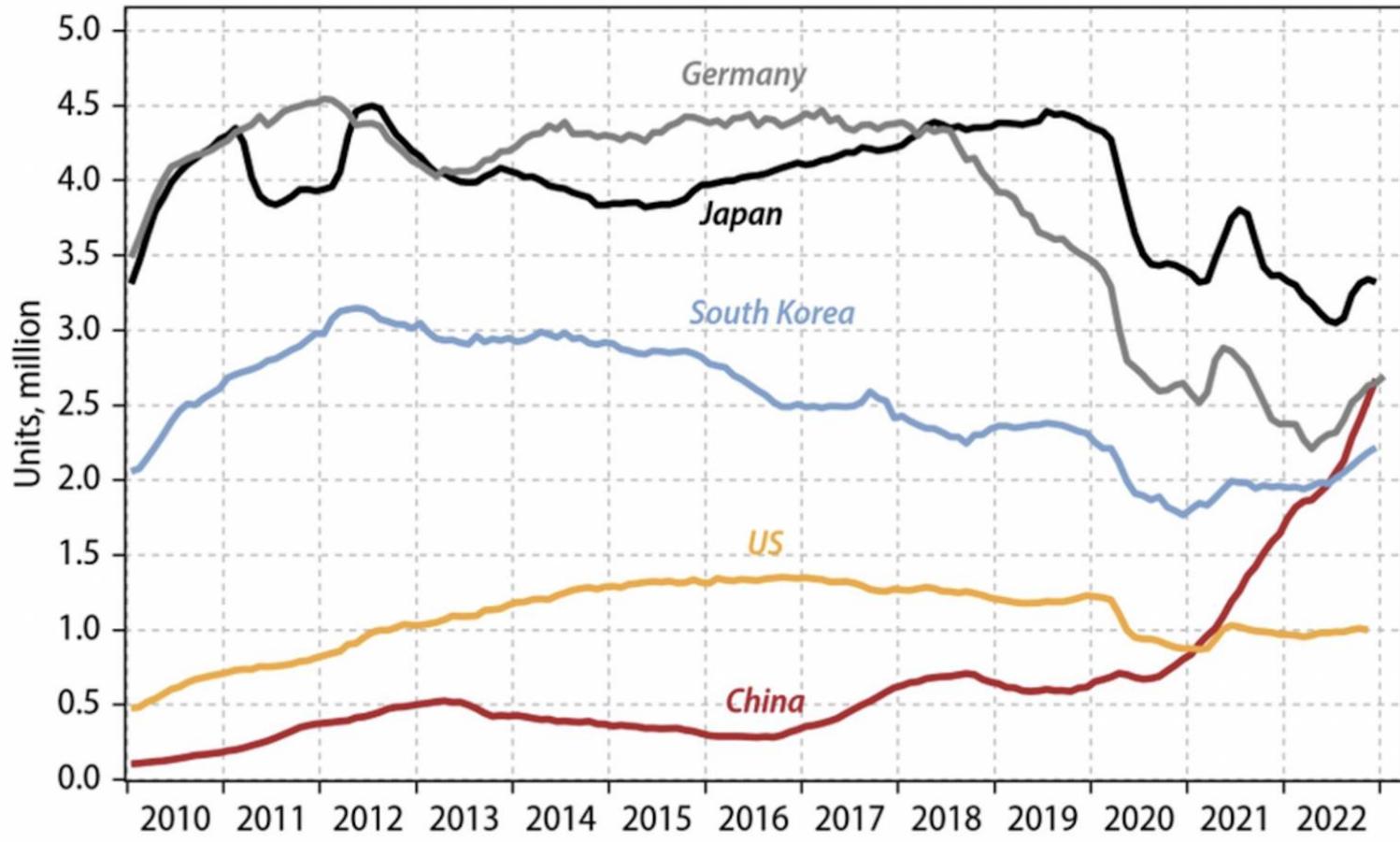
How Elon Musk's Tesla  
Sparked an Electric Revolution  
to End the Age of Oil



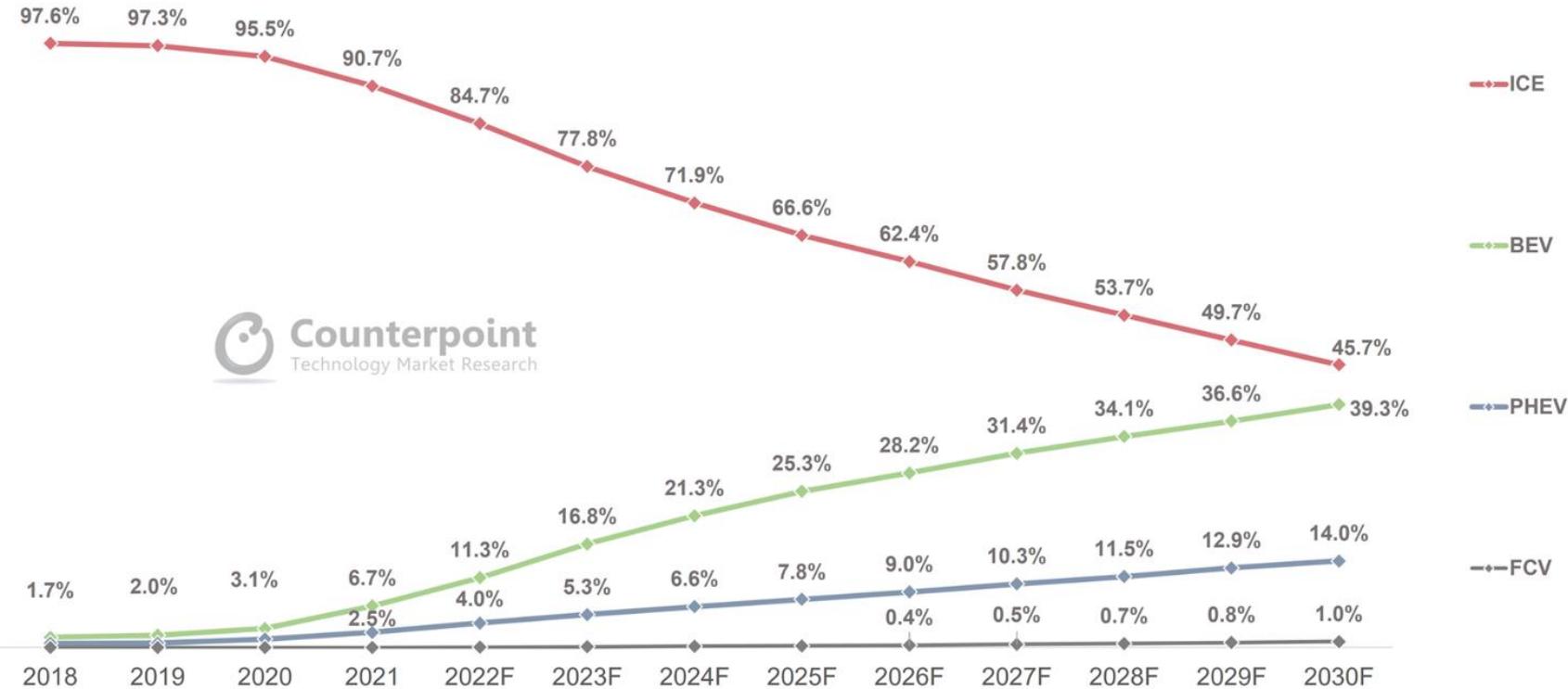
HAMISH MCKENZIE

The electric car  
revolution has  
geopolitical implications

## Exports of passenger cars; rolling 12m sum



# Global PV Sales Share Forecast by Powertrain





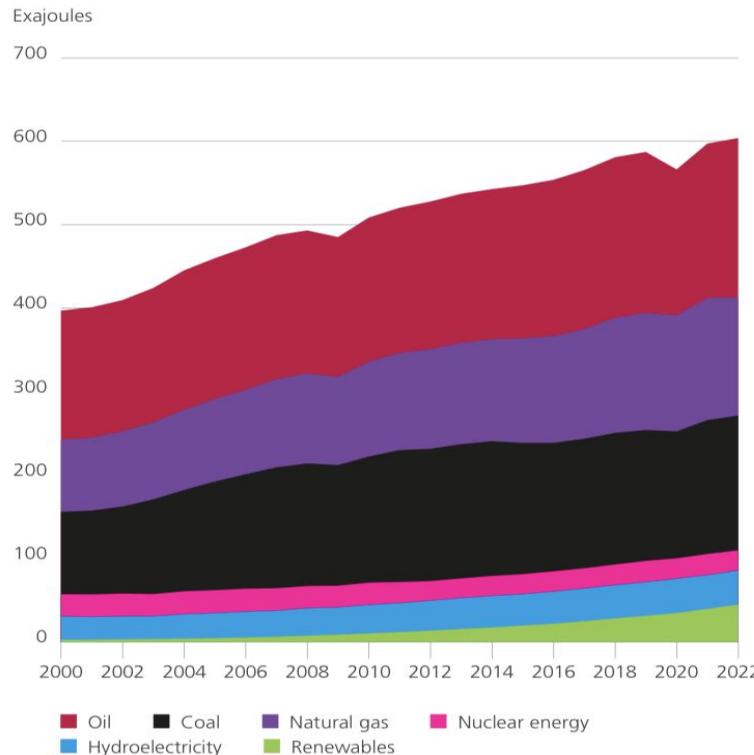




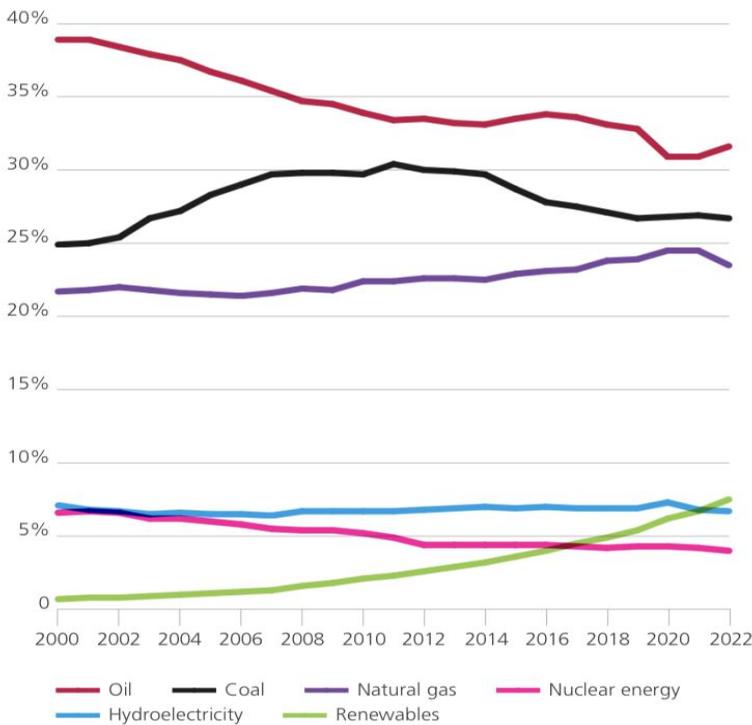
The birthplace of the Industrial Revolution: wood replaced with coal

# P Primary energy World consumption\*

World consumption

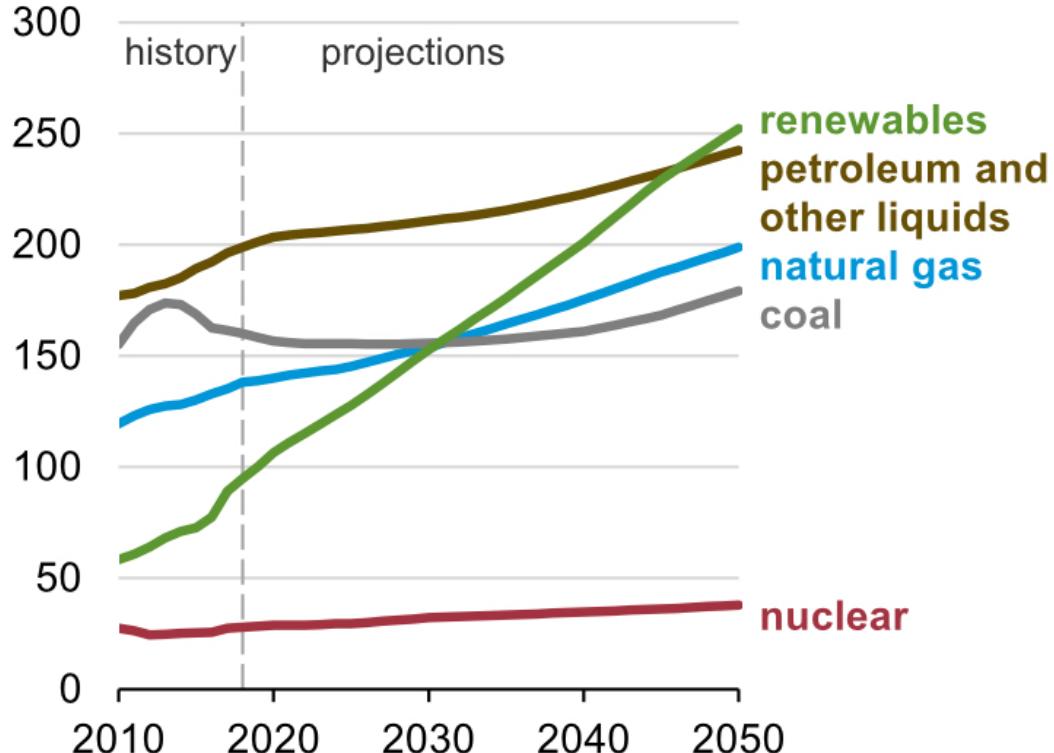


Share of global primary energy



## Global primary energy consumption by energy source (2010-2050)

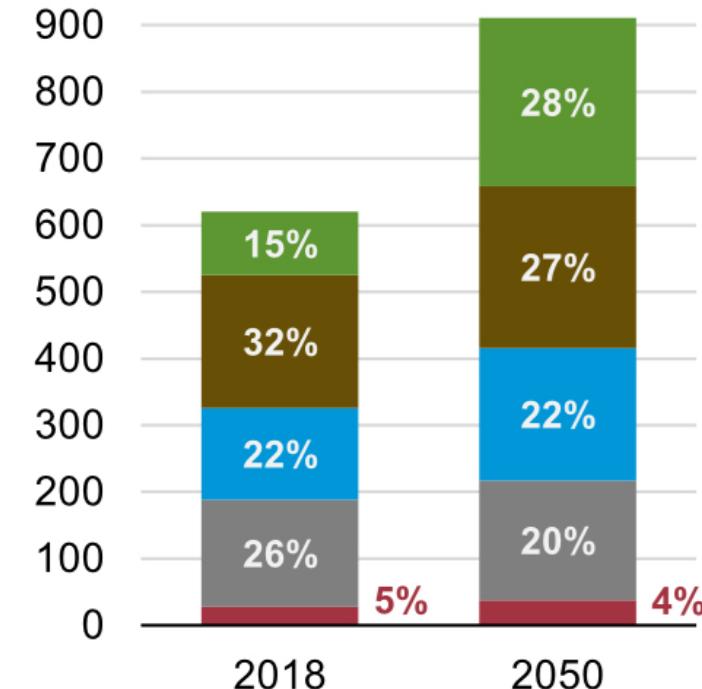
quadrillion British thermal units



bia

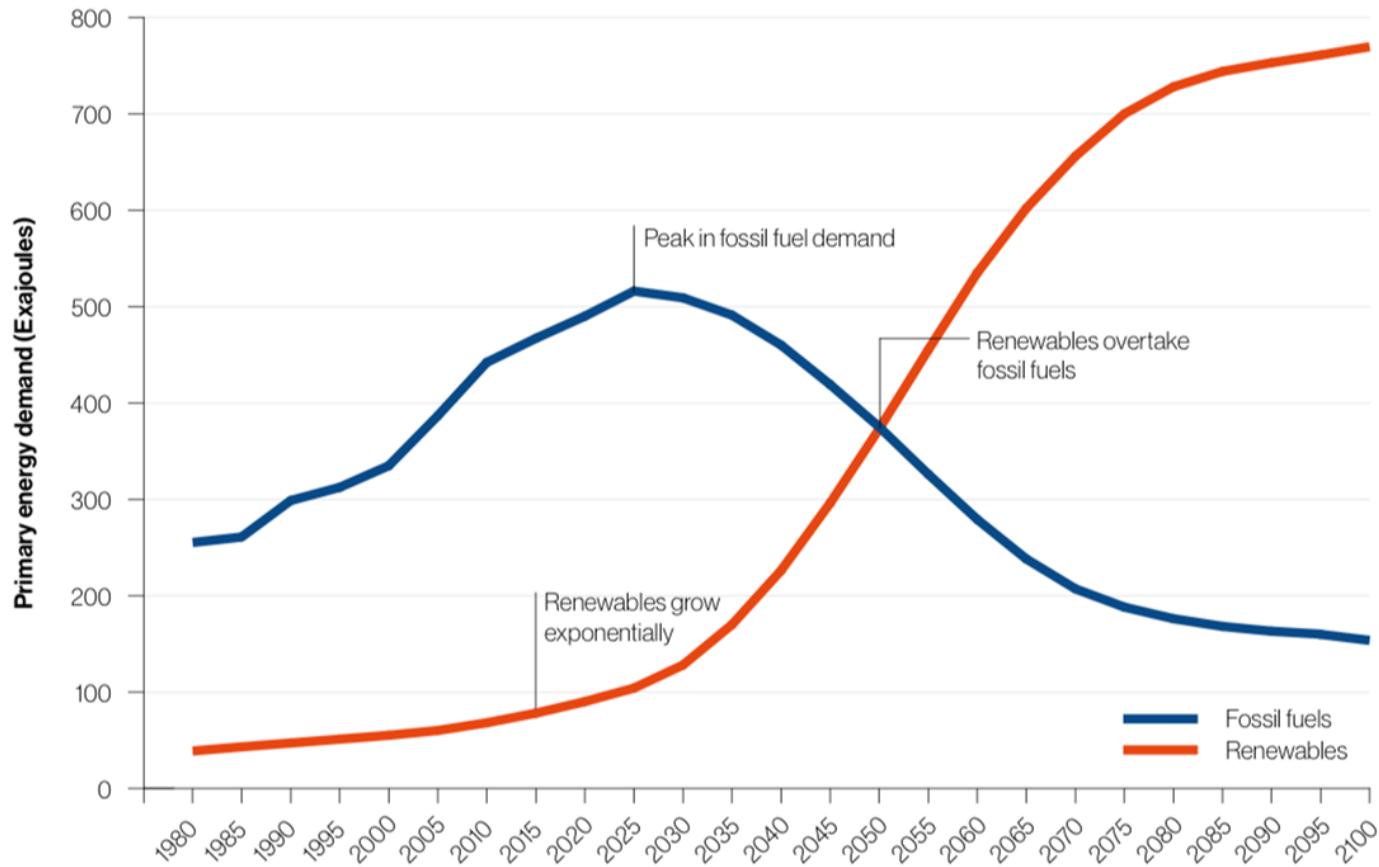
quadrillion British thermal units

1,000

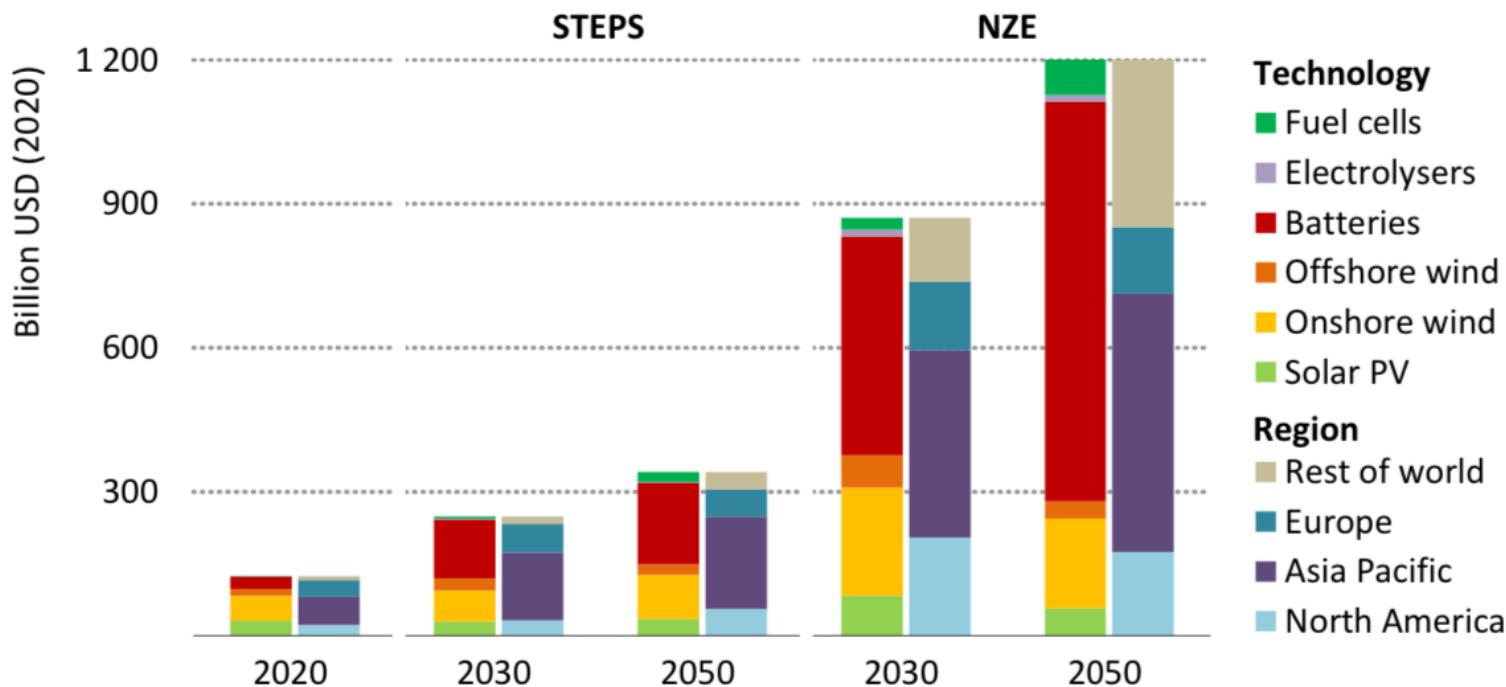


Source: U.S. Energy Information Administration, *International Energy Outlook 2019* Reference case

Figure 1. The energy transition framework



**Figure 1.3 ▷ Estimated market size for selected clean energy technologies by technology and region, 2020-2050**



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*There is explosive growth in clean energy technologies over the next decade in the NZE, leading to a clean energy market worth a cumulative USD 27 trillion by 2050*

# BATTERY MANUFACTURING

## CAPACITY BY COUNTRY

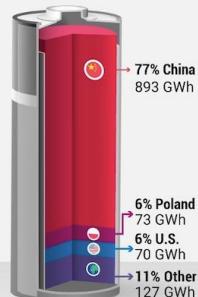
Global lithium-ion battery production capacity is [projected to increase eightfold by 2027](#).

Here's a look at the top countries for battery manufacturing in 2022 and 2027, based on BloombergNEF's lithium-ion supply chain rankings.

 Six of the top 10 battery manufacturing companies are headquartered in China.

 U.S. battery production capacity is projected to grow over 10x by 2027.

### 2022



Total Capacity  
1,163 GWh  
(GIGAWATT-HOURS)

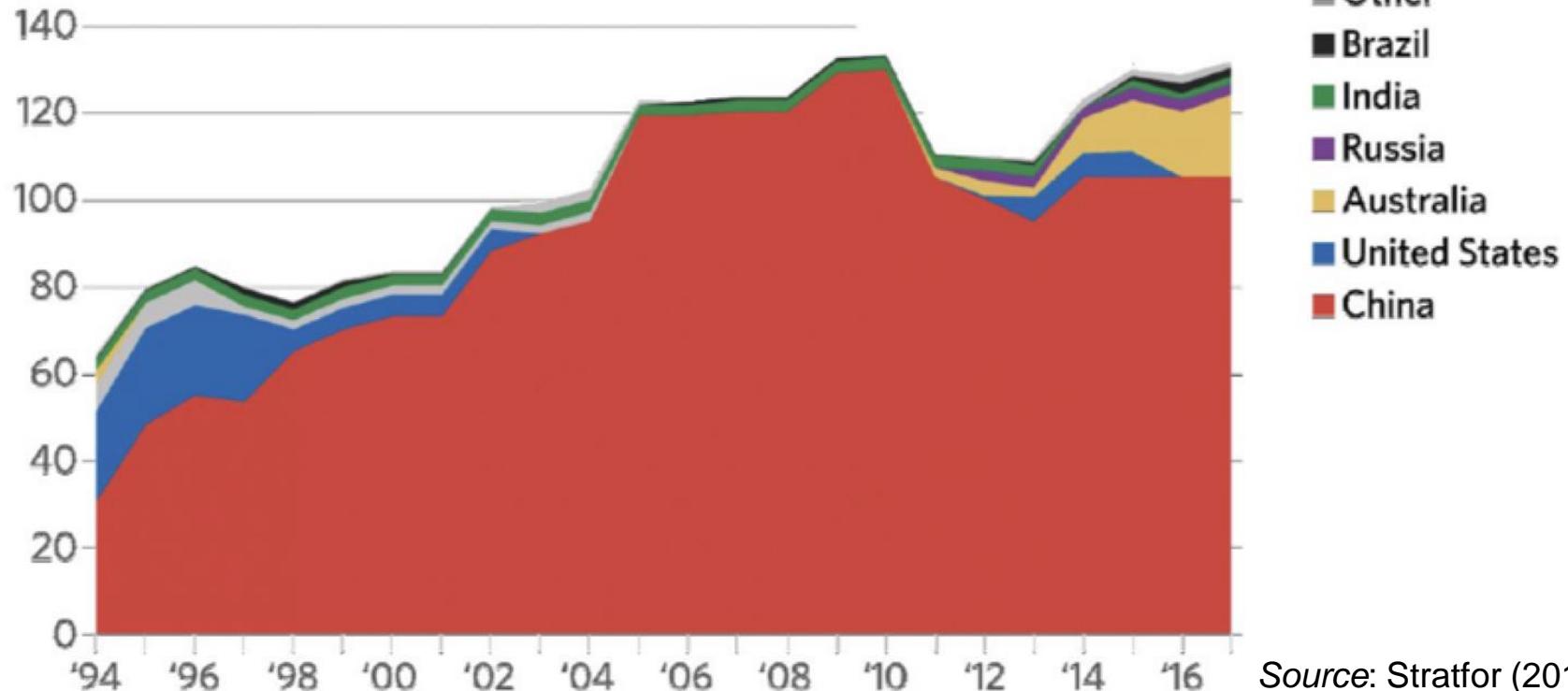
### 2027P



China's dominance is supported by its control over cathode, anode, and refined battery materials production.

Source: BloombergNEF

160 THOUSAND TONS



Source: Stratfor (2019)

World production of rare earths by country

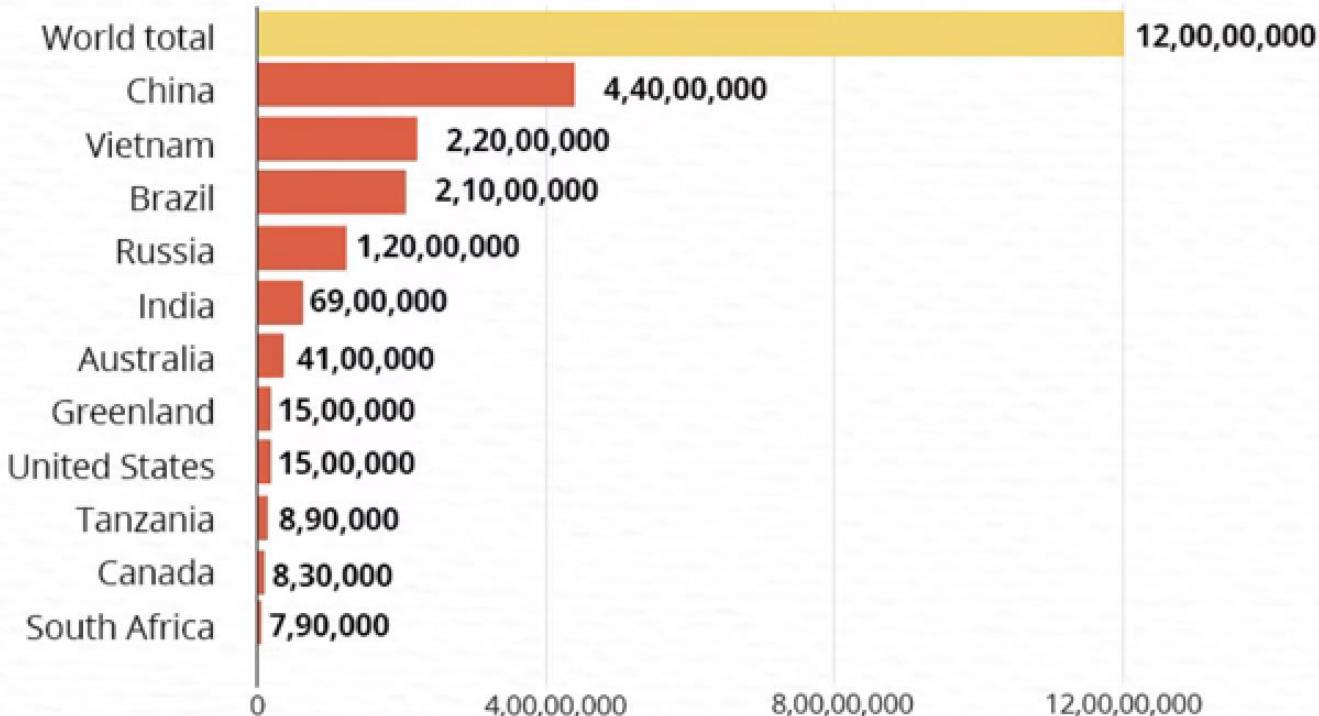


A mining truck drives down a winding canyon road in Xinjiang, China. As demand for rare earth elements increases rapidly, China aims to become the dominant producer and refiner of rare earth elements. (Photo: Getty images)



# WHERE ARE THE WORLD'S LARGEST RARE EARTH RESERVES

Reserves in metric tonnes of REO (rare earth oxides) as of 2020



Source: U.S Geological Survey



**Thank you for your attention!**