

Déjà new: A Return to the Old Normal

January 2024



PGIM FIXED INCOME

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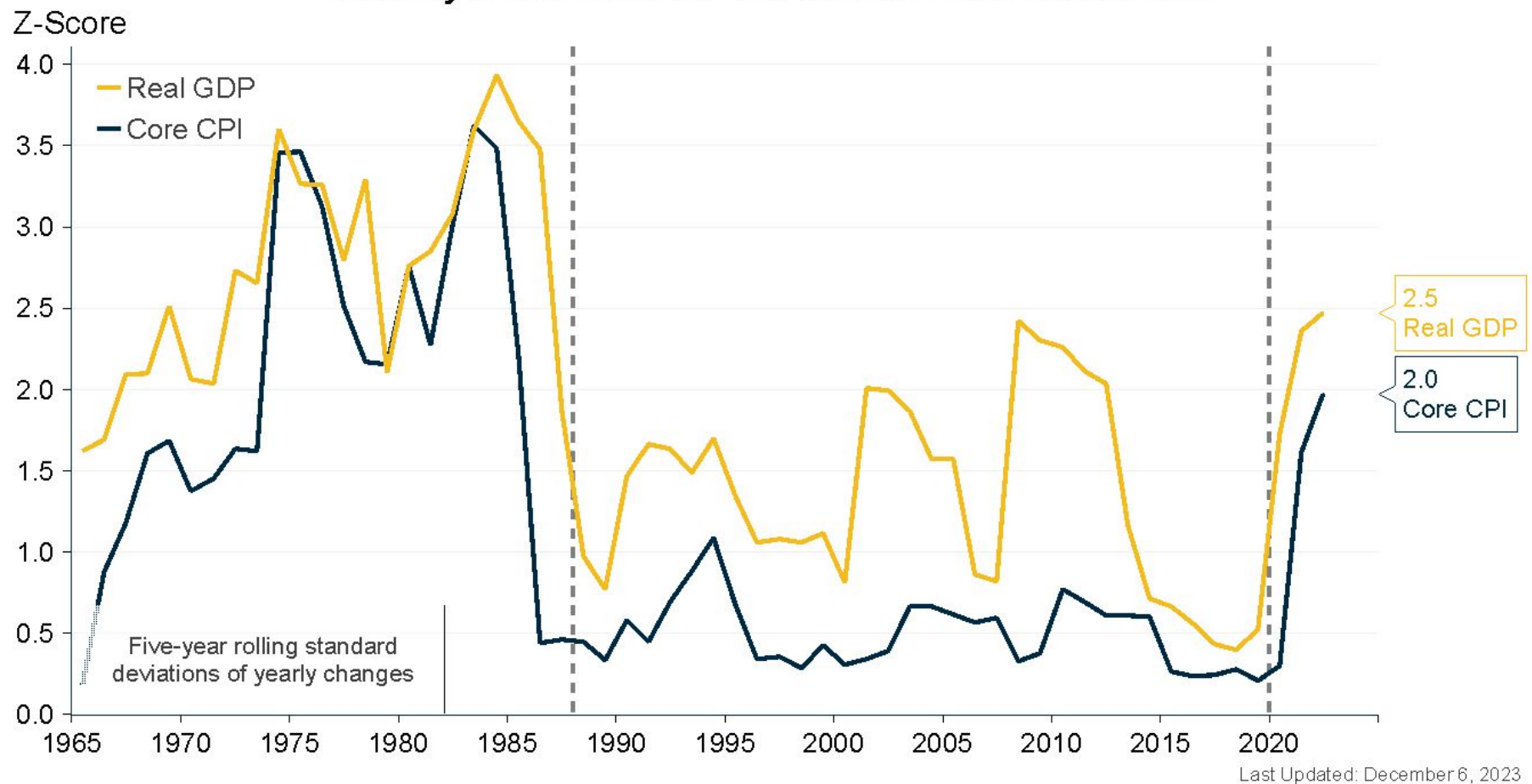
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The uncertainty and complexity we face today isn't abnormal: the outlier was the unipolar era after the Cold War

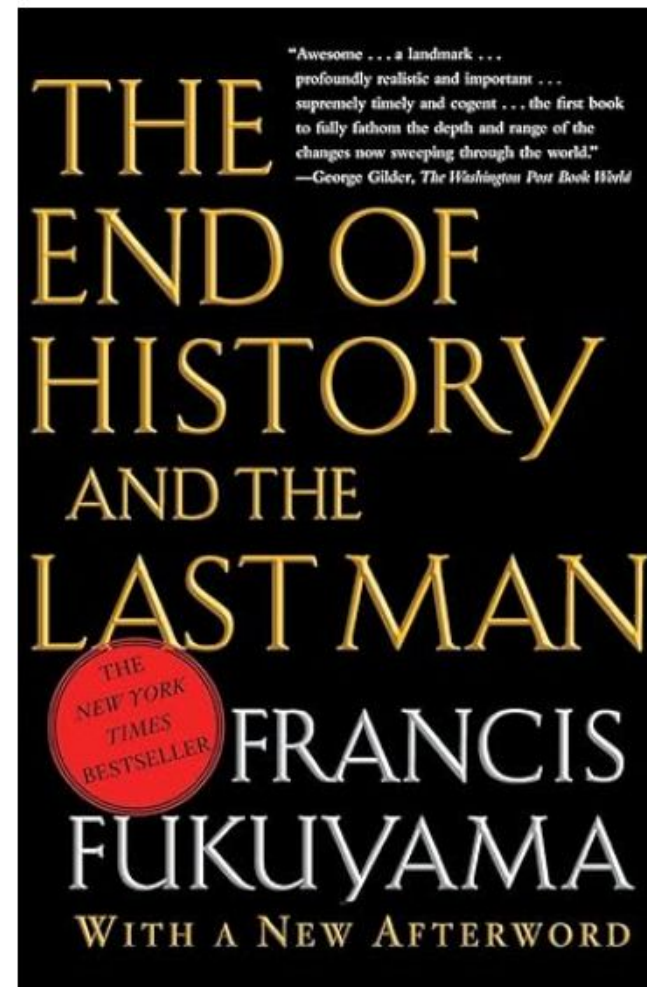
Volatility of U.S. Real GDP and Core CPI from 1965 to 2022





Francis Fukuyama's *End of History* was a best seller, prematurely celebrating the permanent triumph of democracy

Humanity has reached "not just...the passing of a particular period of post-war history, but the end of history as such: that is, the endpoint of mankind's ideological evolution and the universalization of Western liberal democracy as the final form of human government."





To be fair, democracy was ascendent like never before



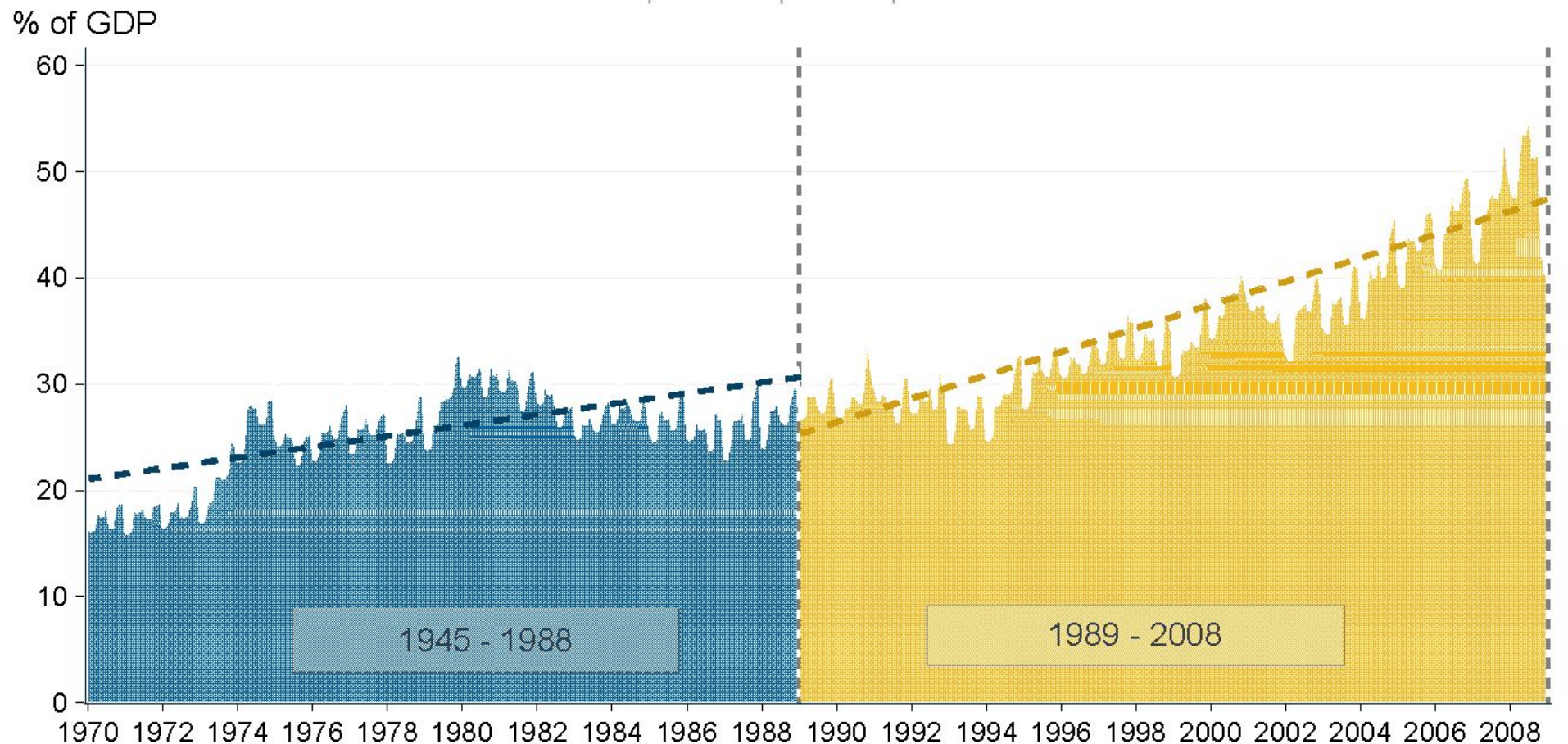
Source: PGIM Fixed Income as of June 2018, Polity IV Project. Note: Anocracy: Mixed or incoherent authority regime.



Democratic capitalism, globalization, and global supply chains were “in”

Post Cold War: "Hyperglobalization"

Sum of exports and imports as a percent of GDP



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Cold War rivalries were “out” - Russia joined G7 discussions in 1994 and was officially invited in 1997

World Leaders at the Denver Summit of the Eight in 1997



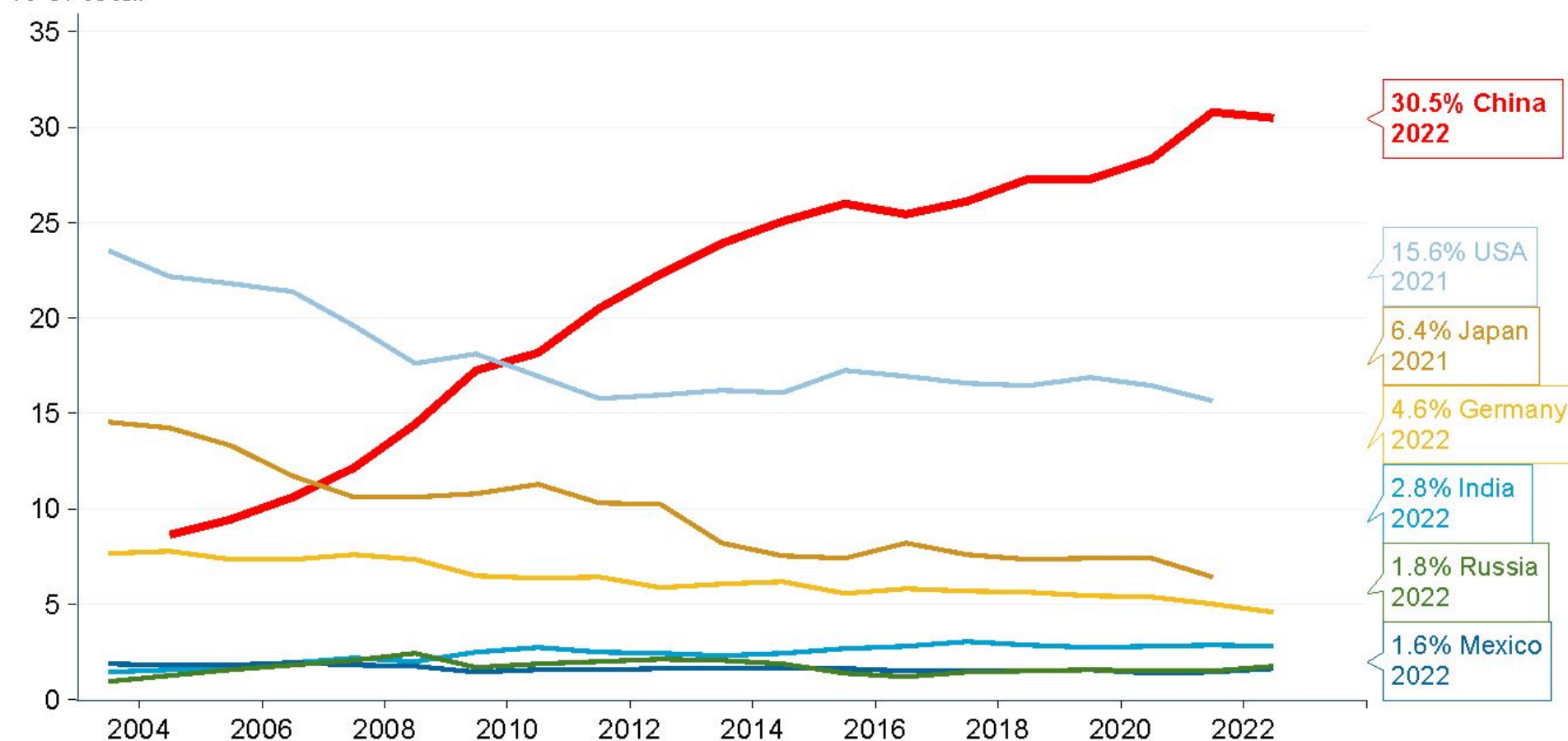
Boris Yeltsin flanking Bill Clinton at the G8



China joined the WTO in 2001 and soon turbocharged globalization in its image

Global Share of Manufacturing Value Added

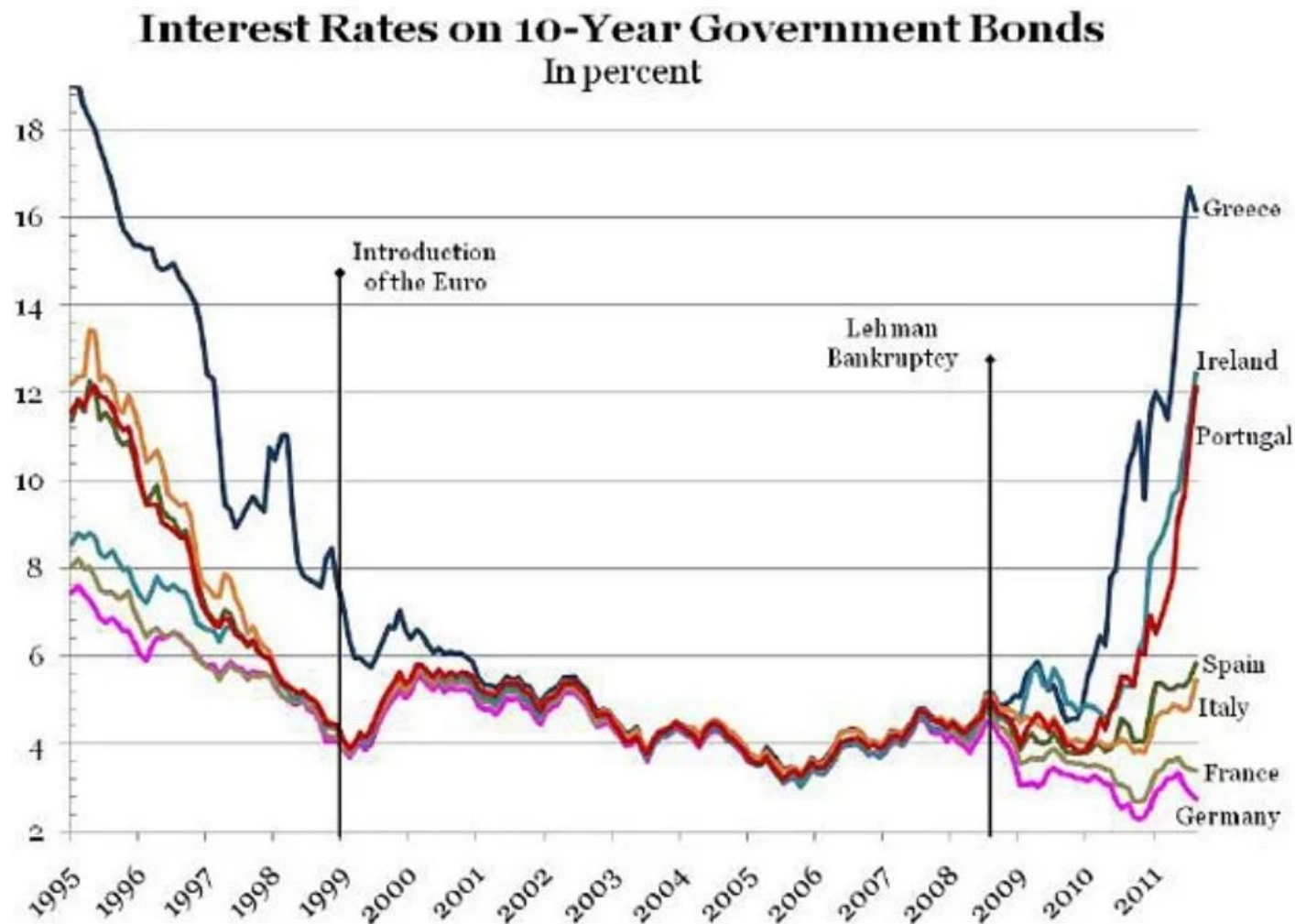
% of total



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Europe introduced the Euro in 1999, ushering in a decade of monetary convergence



European yields.

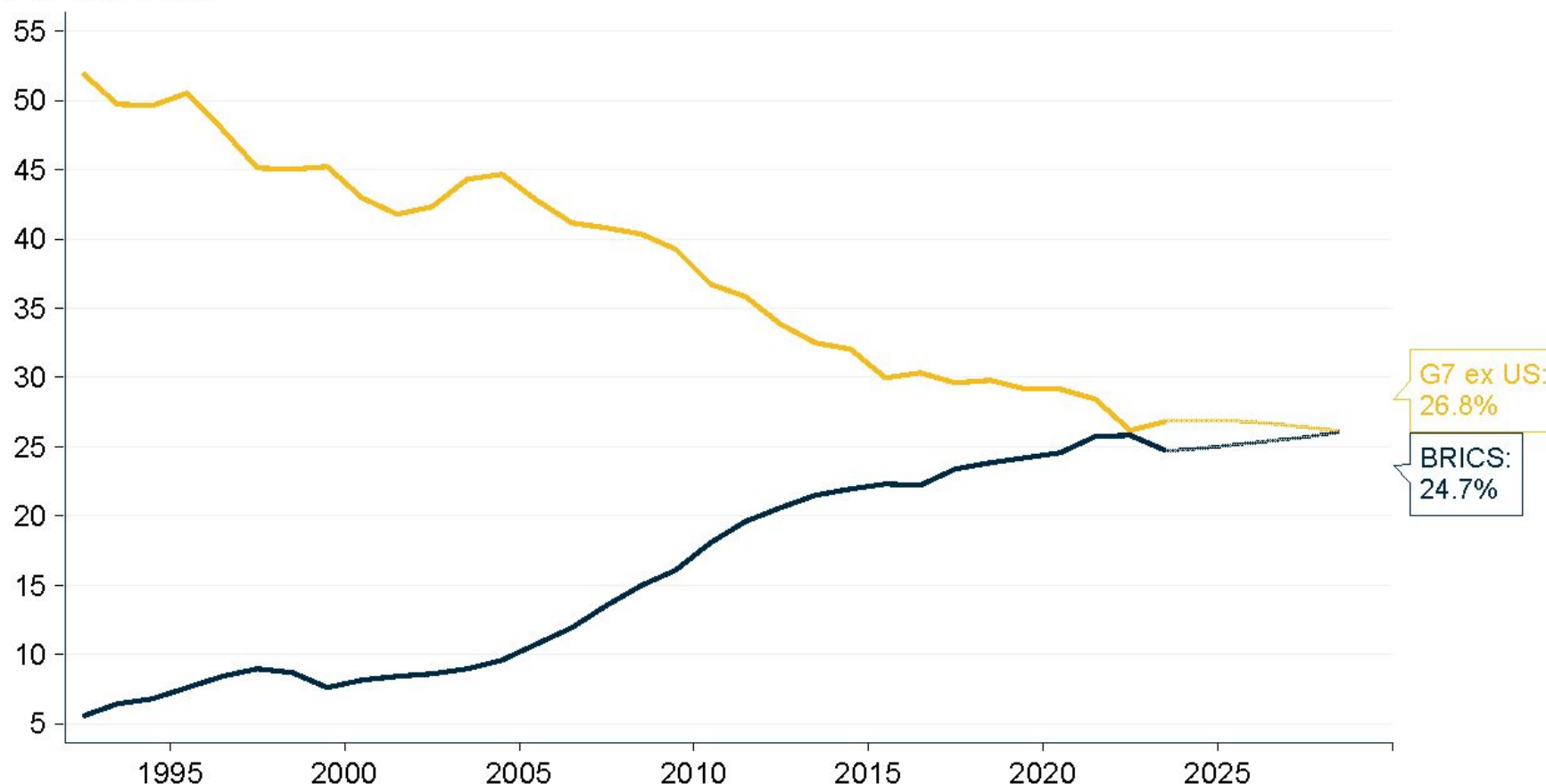
Thomson Reuters Datastream



The BRICs became the Beatles among emerging economies, lifting hundreds of millions out of abject poverty

Share of Global GDP: BRICS vs. G7 (ex-US)

% share of world GDP



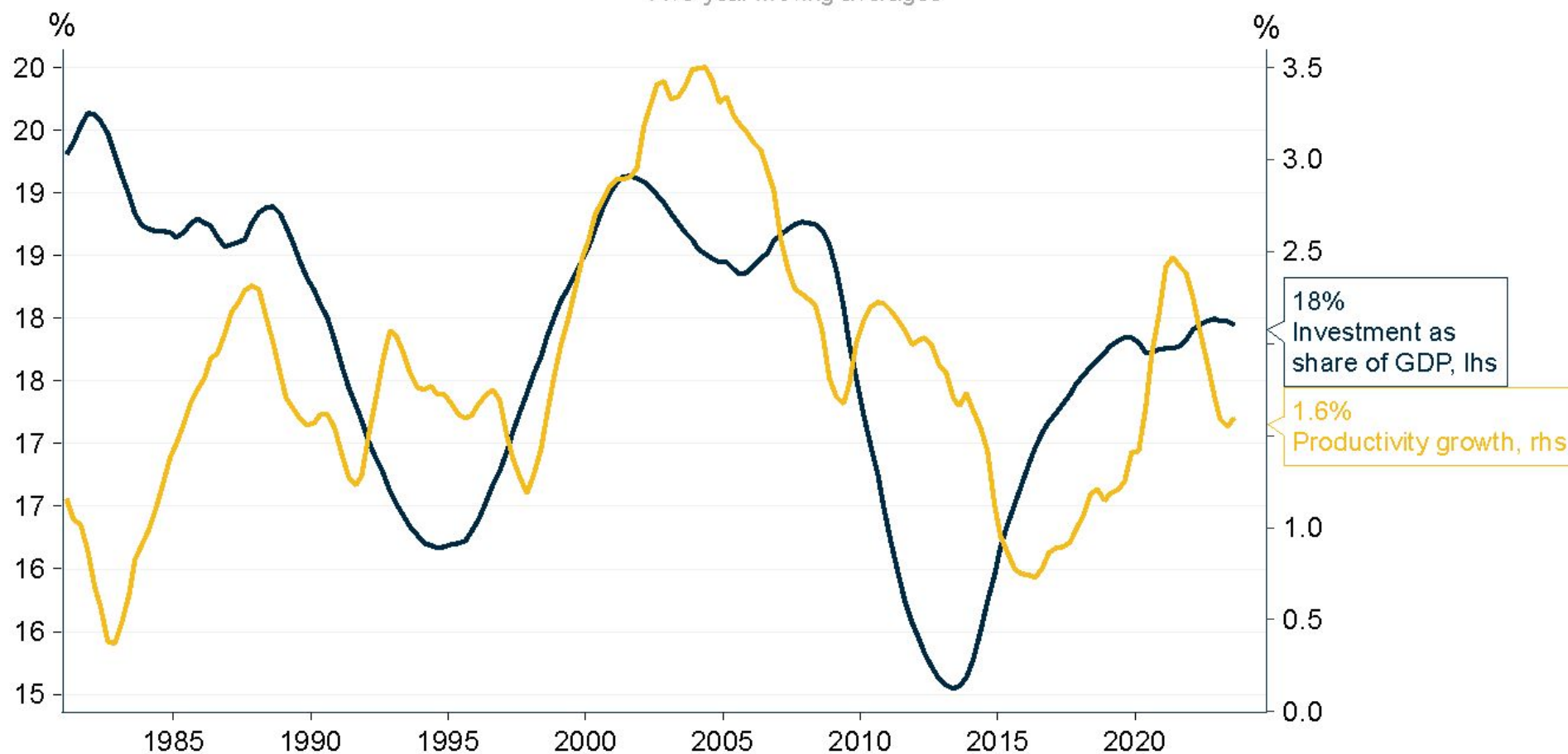
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Investment & productivity boomed as ICT technologies were developed and diffused into businesses processes

Private Domestic Investment (Share of GDP) & Productivity Growth

Five-year moving averages



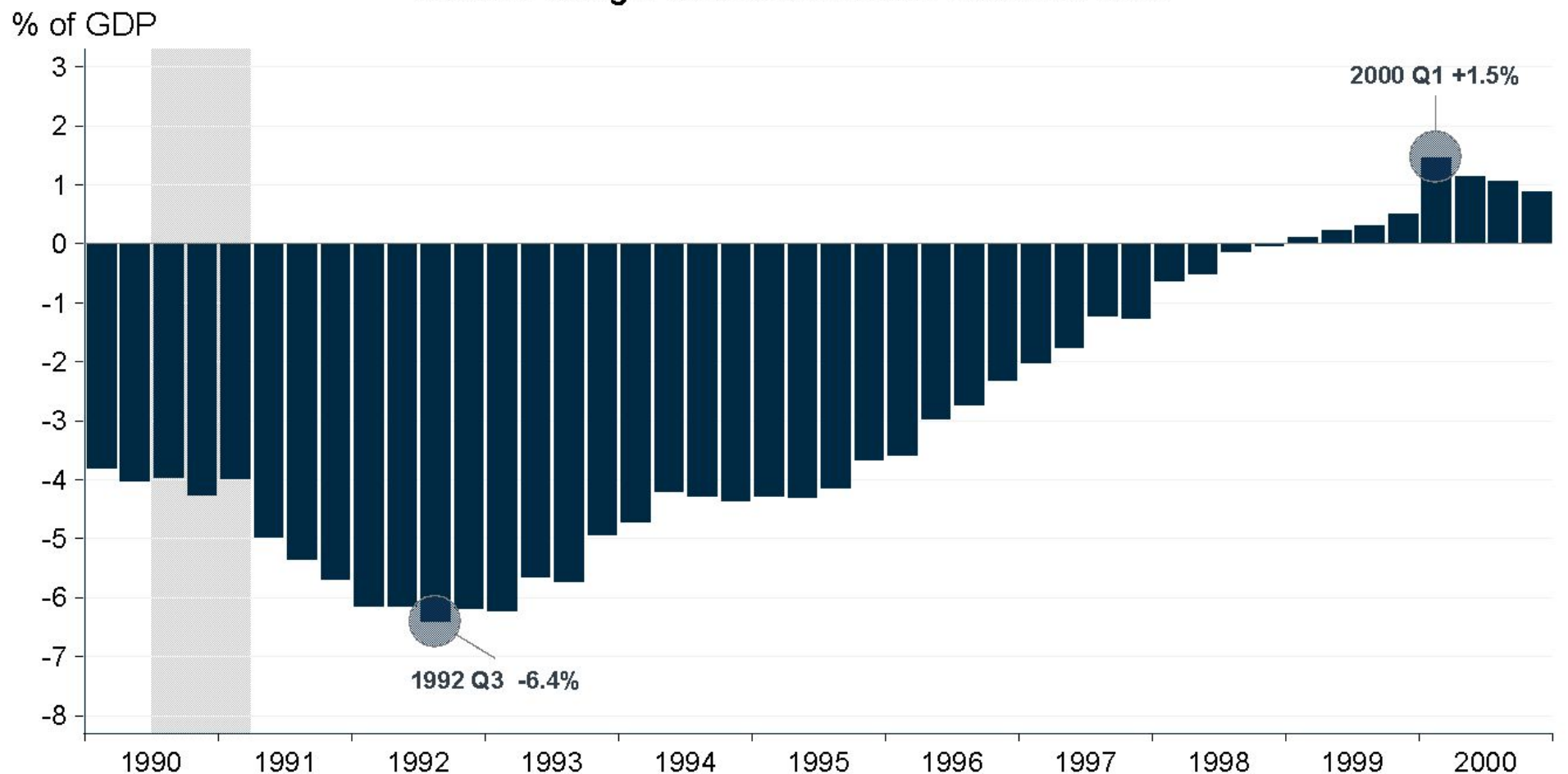
Source: PGIM Fixed Income

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Meanwhile, a bipartisan push for fiscal discipline produced budget surpluses by the turn of the century

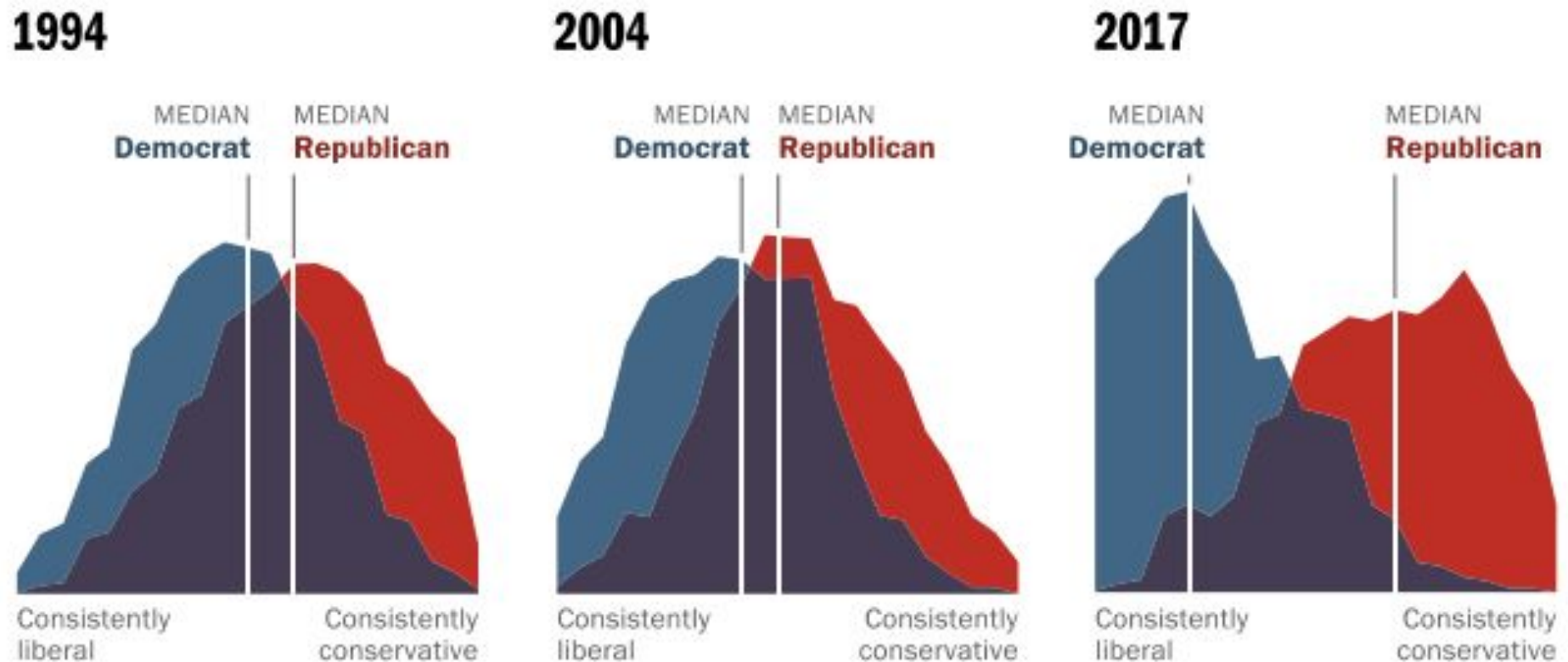
Federal Budget Balance Between 1990 and 2000



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Voting patterns in Congress differed only at the margin



Source: "The Partisan Divide on Political Values Grows Even Wider". Pew Research Center, Washington, D.C. October 2017



Most people received the same news – from the same sources – precisely twice a day

**The
Washington
Post**

**The
New York
Times**

WSJ



Source: PGIM Fixed Income; public domain photos

The unipolar moment of great moderation is over...

...it's not coming back anytime soon



We have entered a period of seismic shifts that loosen structural anchors on the global economy and our geopolitical regime

Trend		Implications
1	Intensified Great Power Competition	<ul style="list-style-type: none"> a) More frequent and disruptive conflict b) Fiscal dominance at home; intensified economic statecraft abroad c) Less scope for cross-border risk management
2	Unprecedented Political Polarization	<ul style="list-style-type: none"> a) Erosion of political center b) Less orthodox economic policy c) Institutional decay & less policy credibility
3	Bumpy Transition From Fossil Fuels □ Renewables	<ul style="list-style-type: none"> a) Shortfalls in energy supply as fossil fuels phased out b) Higher energy prices, headline inflation, and infl expectation c) Larger fiscal transfers to cushion worst off d) BoP winners & losers
4	Supply Chain De-risking	<ul style="list-style-type: none"> a) Singular focus on supply chain efficiency is “out” b) Resilience is “in” as an organizing principle b) Smaller markets □ lower econ of scale □ higher costs
5	Distinct Technological Ecosystems	<ul style="list-style-type: none"> a) More public investment in foundational technologies, but... b) Dimensions of “yard”/“fence” will expand □ less tech diffusion c) Two sided risk: new forms of hybrid warfare using AI, biotech, etc

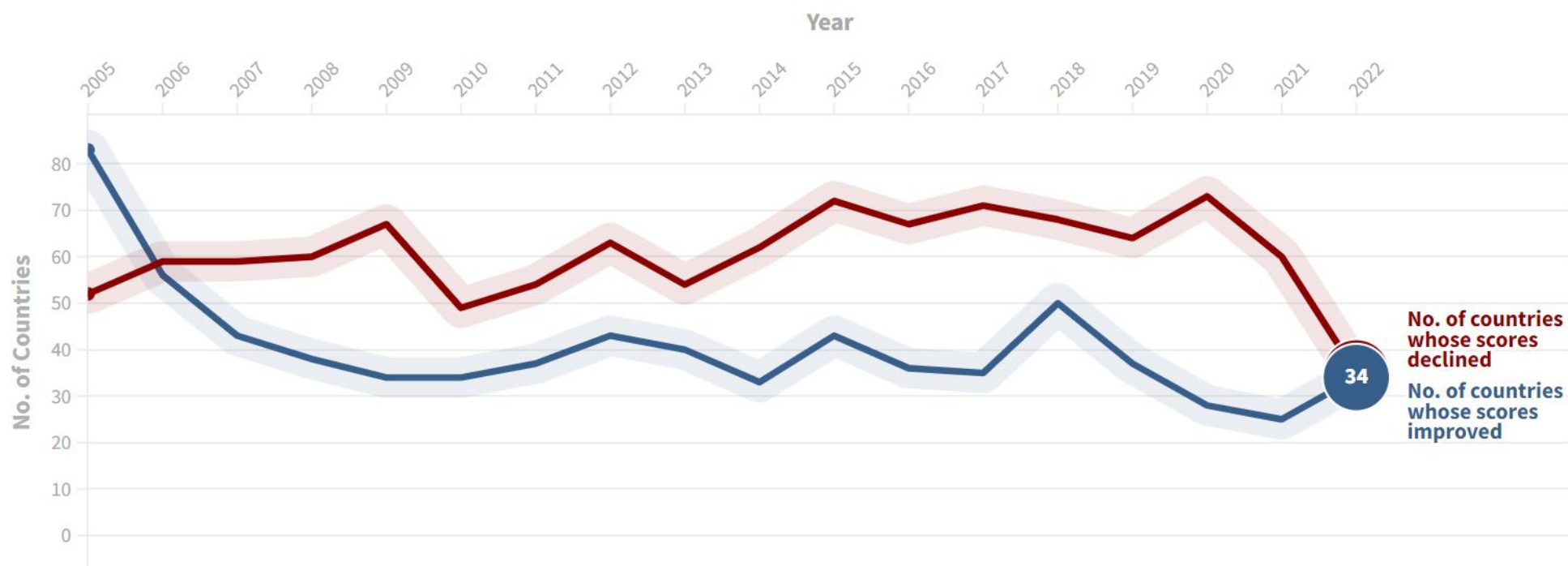
Intensified Great Power Competition



Unlike during the unipolar era, democracy has been in retreat for much of this century

17 YEARS OF DEMOCRATIC DECLINE

Countries with aggregate score declines in *Freedom in the World* have outnumbered those with gains every year for the past 17 years. However, events in 2022 generated the smallest margin—and the smallest number of countries with declines—since the negative pattern began.

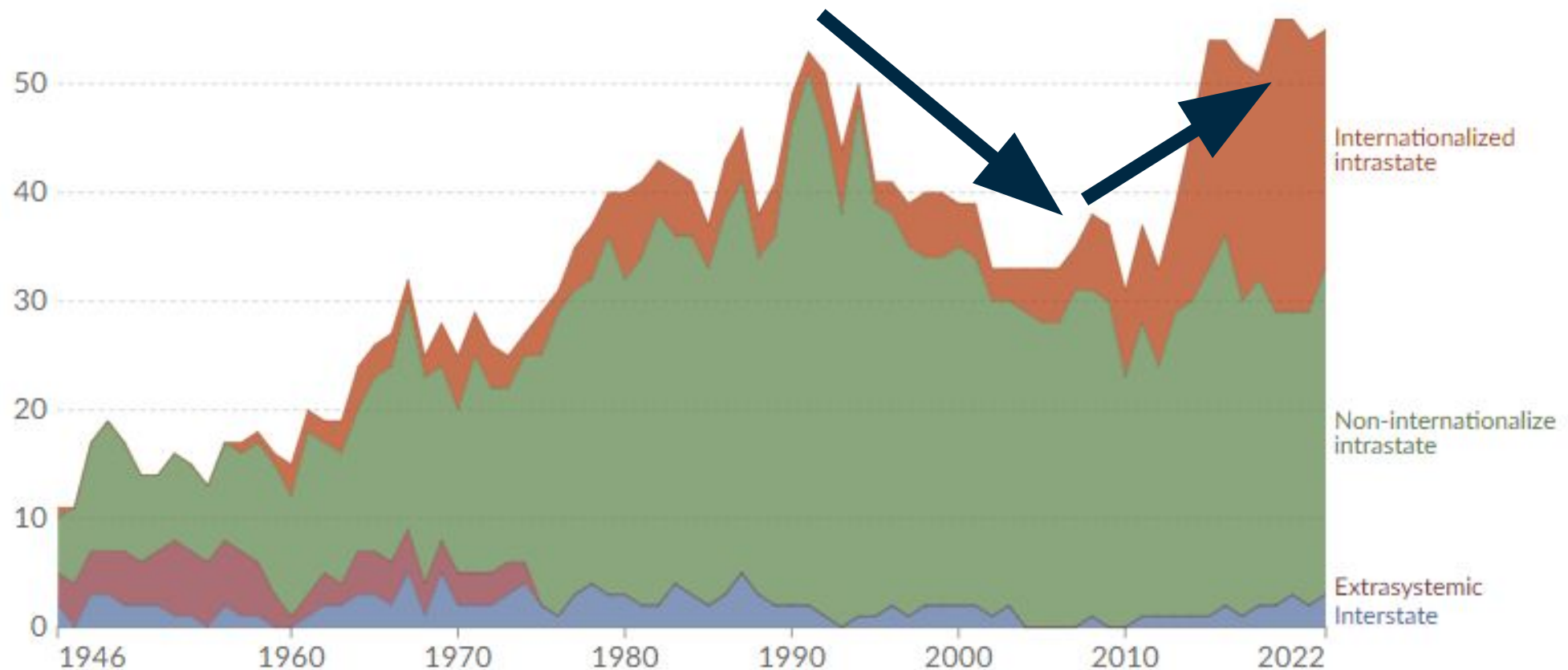


Source: Freedom House. As of March 2023. Note: Countries whose scores were unchanged are not included in this comparison. Freedom in the World assesses 195 countries and 15 territories.



Intensified great power competition implies more frequent conflict, either directly or via proxies

State-Based Conflicts from 1946 to 2022



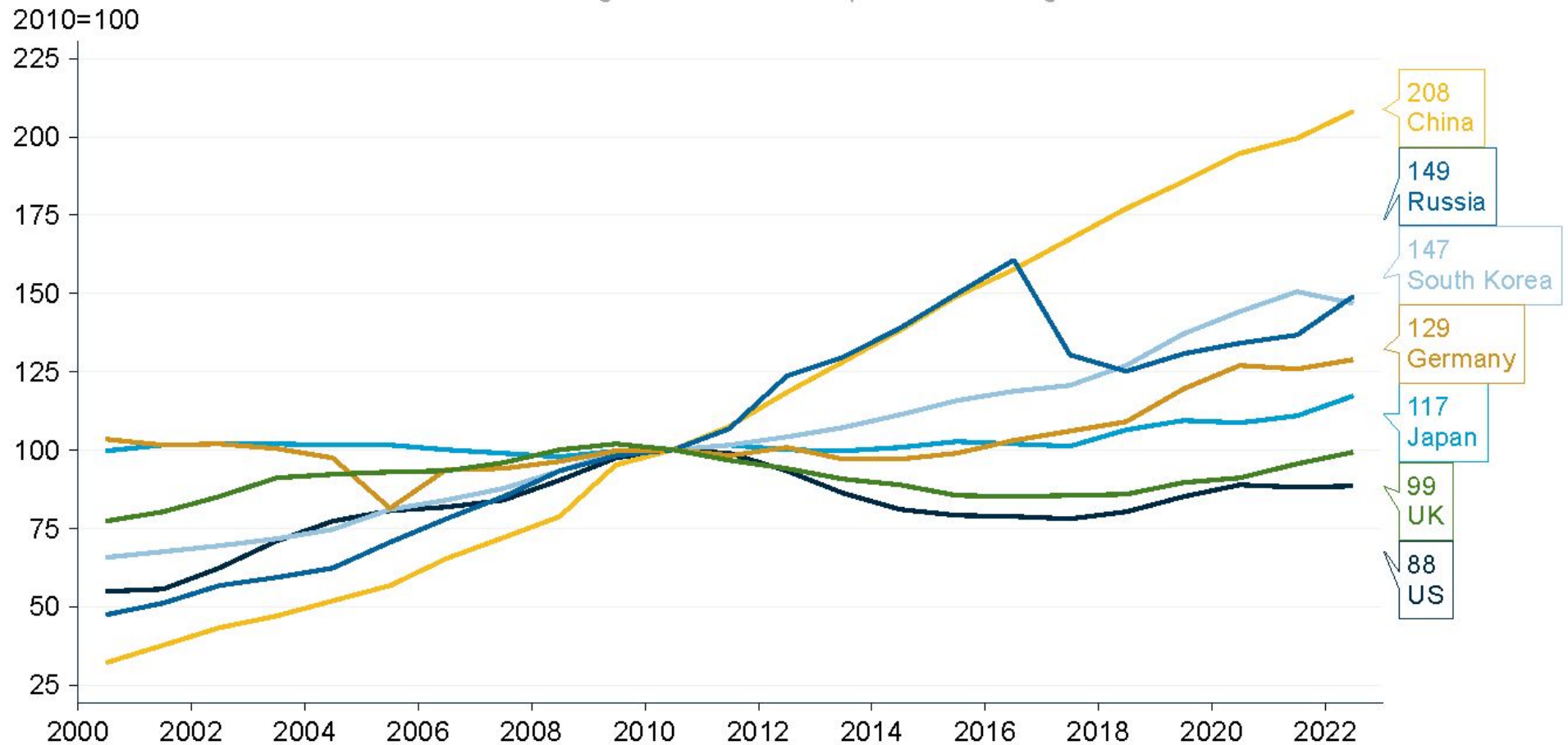
Source: UCDP and Our World in Data. Measures conflicts that cause at least 25 deaths during the year. As of October 2023.



Military expenditures across the world are broadening and rising sharply...

Military Expenditure by Country

Derived from figures in constant 2021 prices and exchange rates

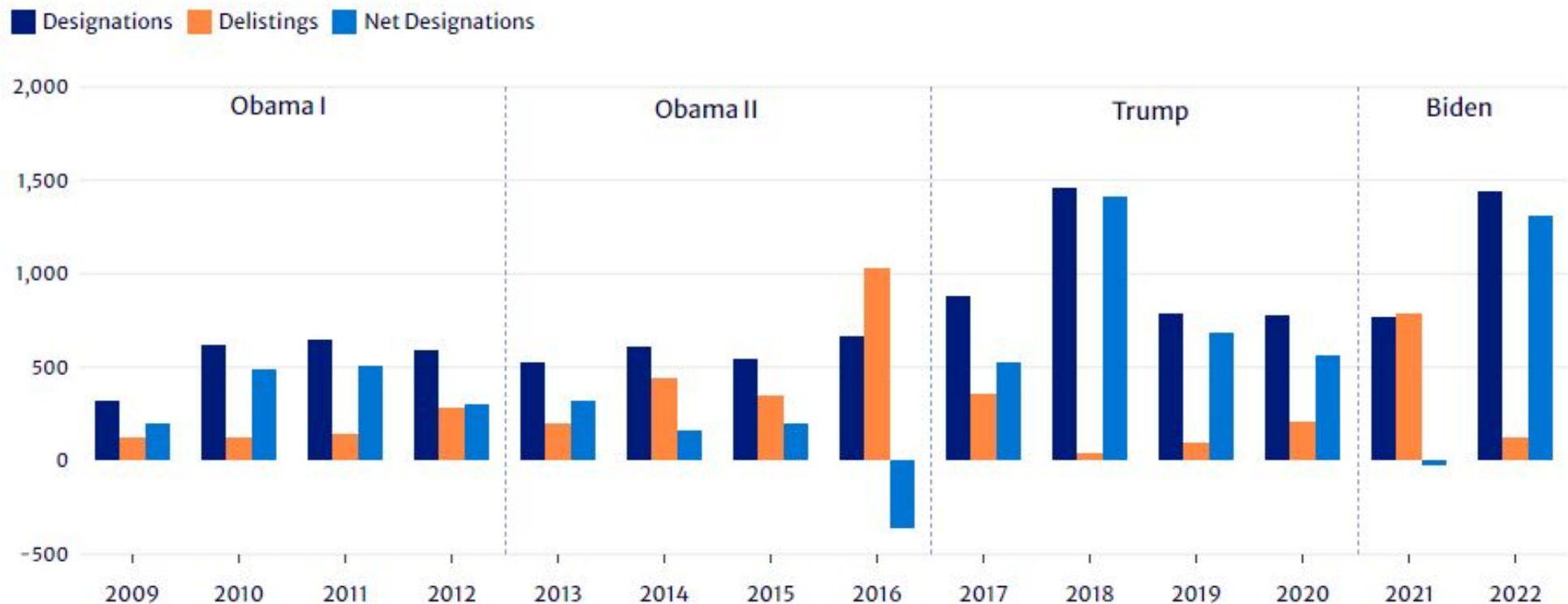


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...but because “great” powers = nuclear powers, there is a strong deterrent against military confrontation.
Implication? Economic statecraft = foreign policy of first resort

US Sanctions Designations, 2009-2022



Source: CEPR author's calculations based on Dorshimer and Shin (2021), US Department of the Treasury (2023). As of May 2023.

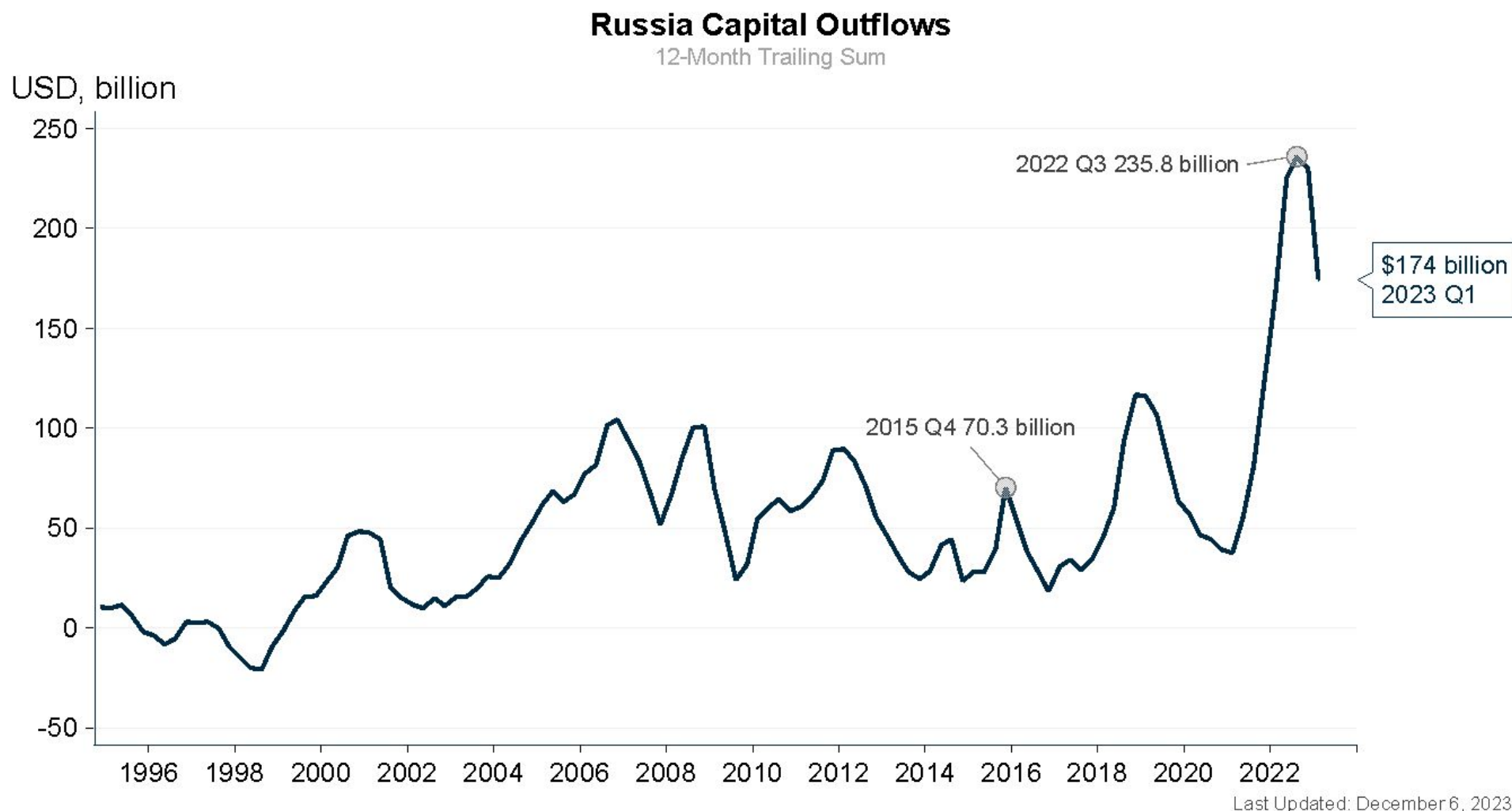


By construction, sanctions are designed to break trade, capital, and technology linkages in the global economy. See Russia 2022





The wave of capital outflows in Russia was more than 2x the outflows during the GFC and COVID...





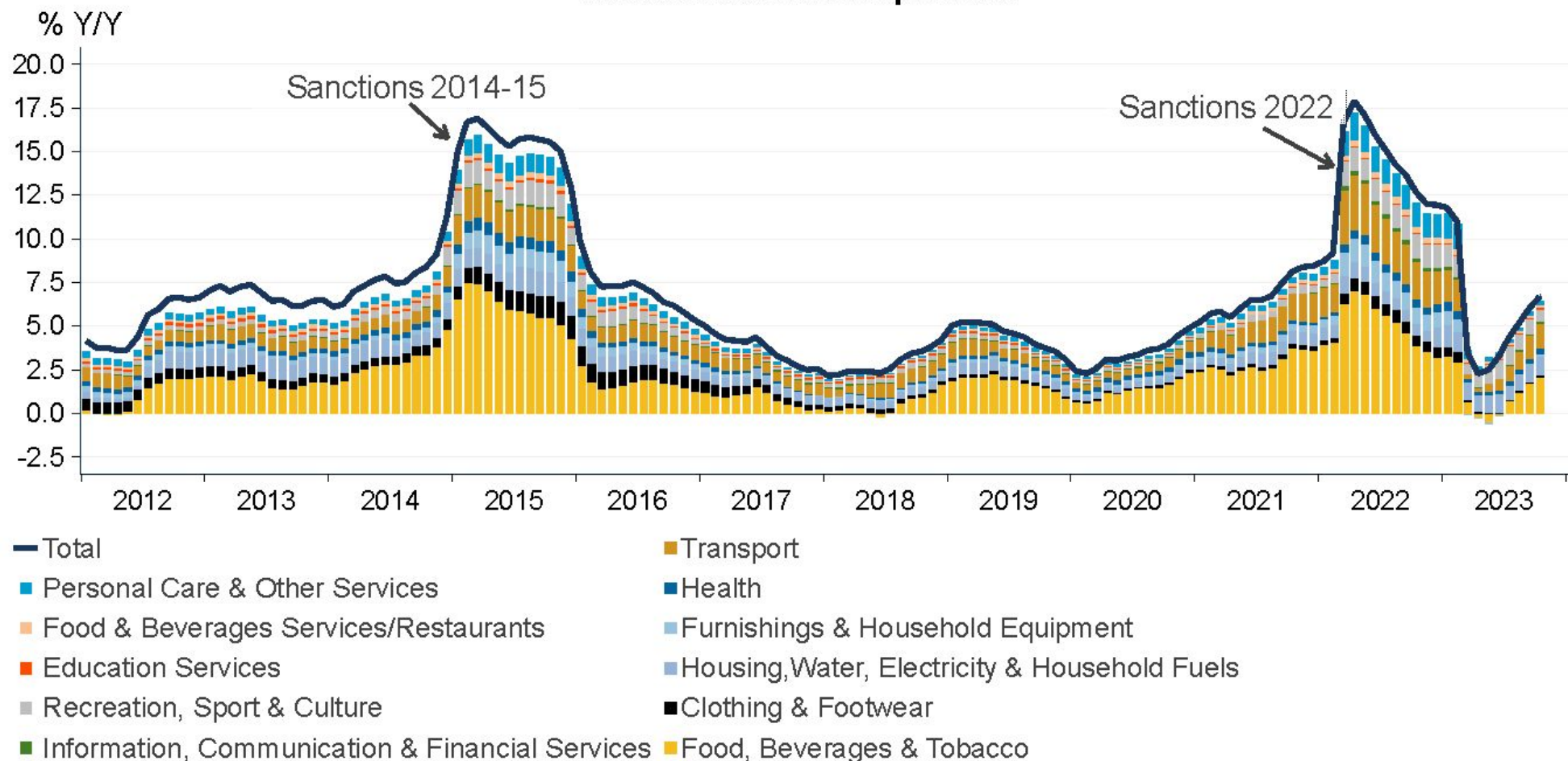
...triggering an initial freefall in the value of the Ruble...





...a spike of import prices and inflation...

Russia Inflation Components

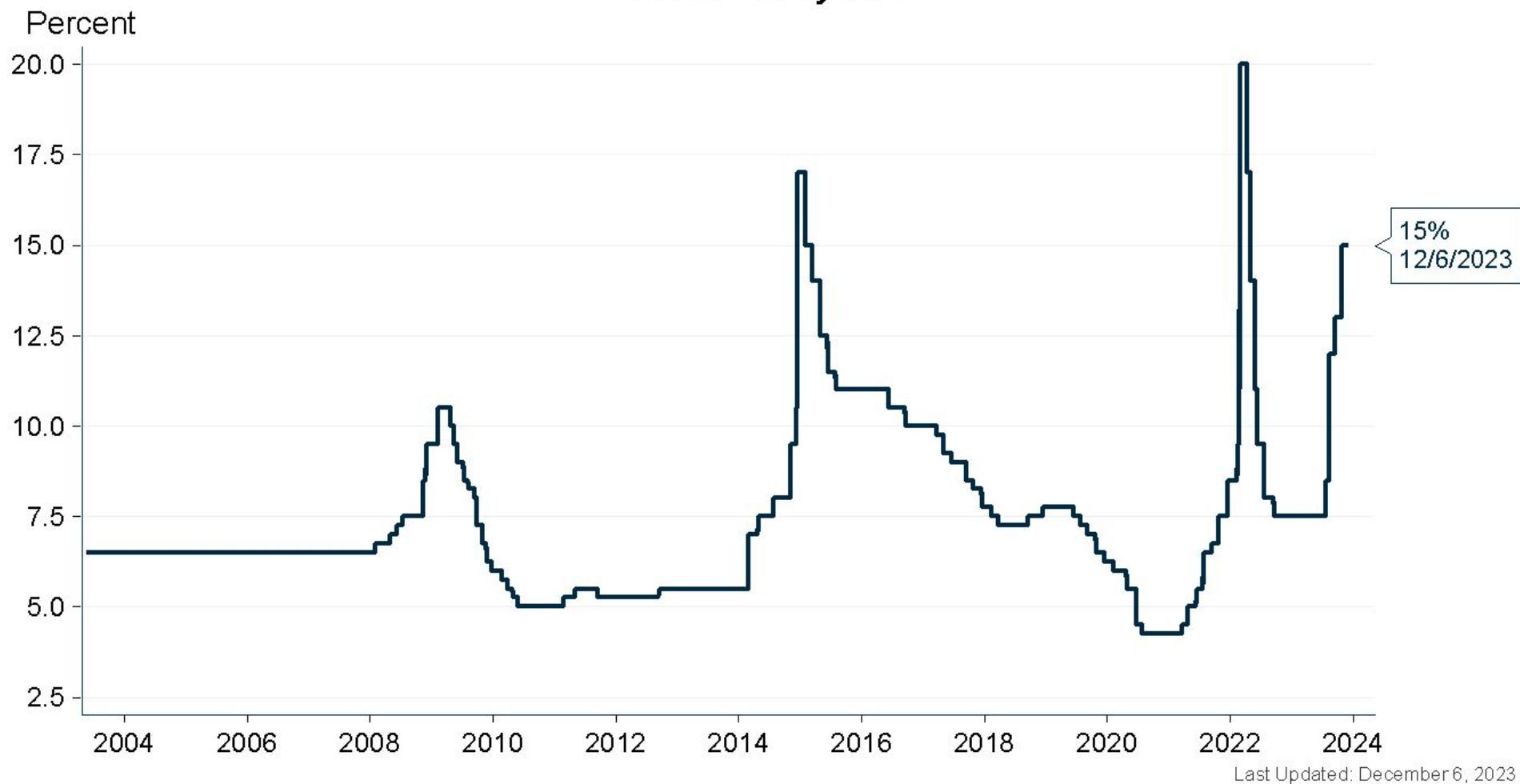


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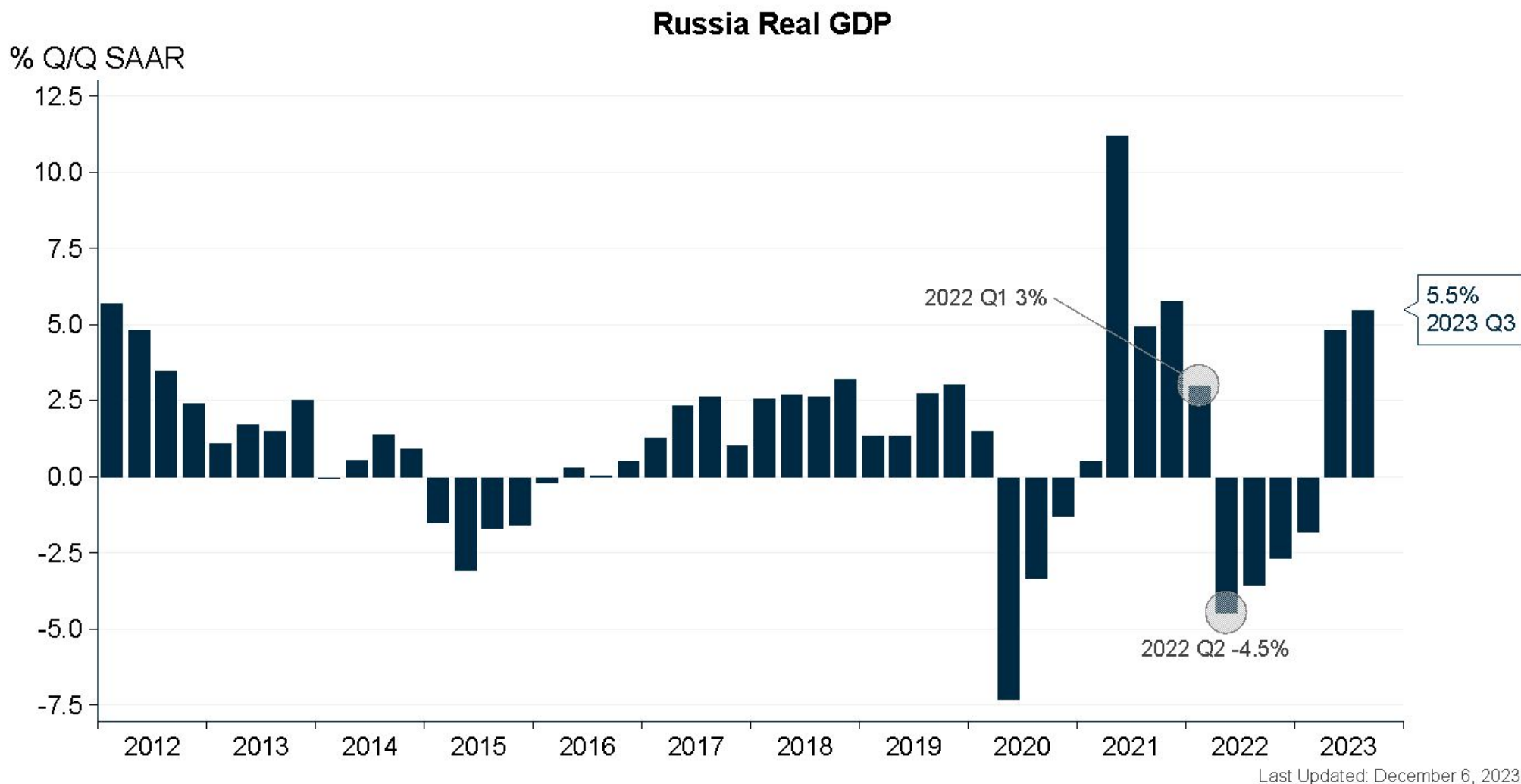
...nosebleed policy rates from the central bank...

Russia Policy Rate



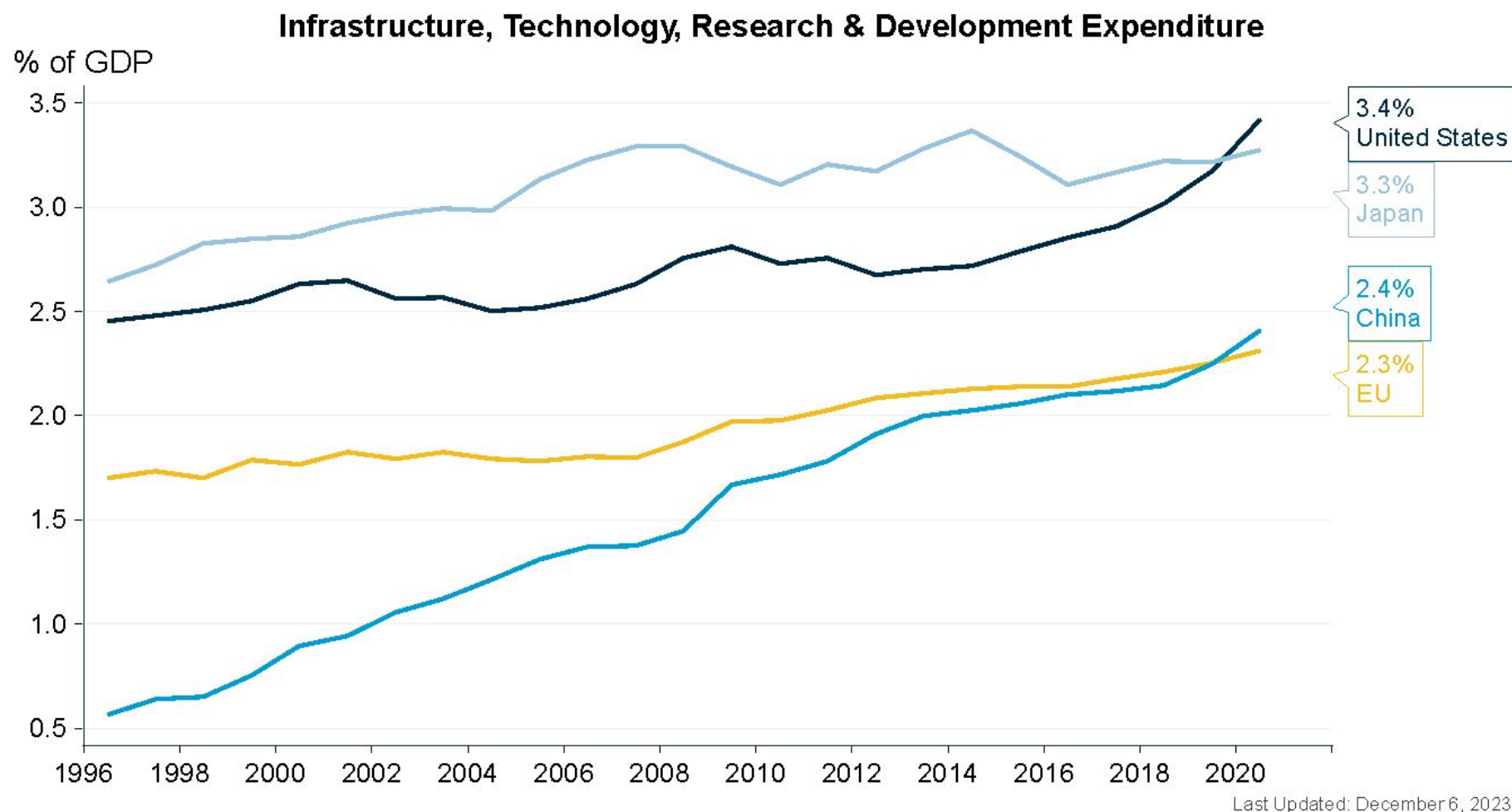


...and recession





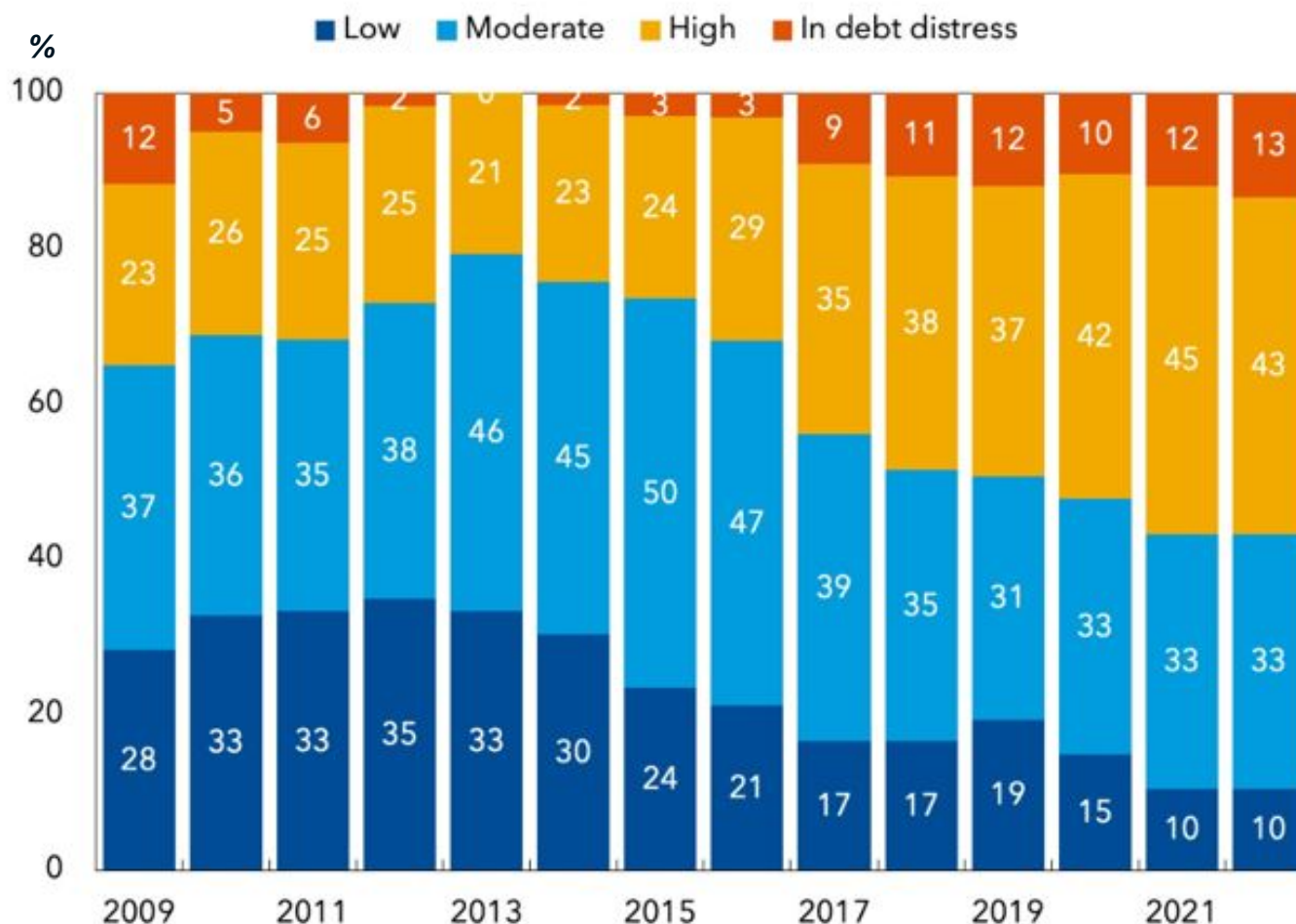
On a positive note, great power competition may induce more active use of fiscal policy to sustain or generate new competitive advantages





But the scope for cross-border cooperation to address cross-border risks is undeniably smaller

The proportion of countries in debt distress, or at high risk of debt distress, has doubled to 60% from 2015 levels.



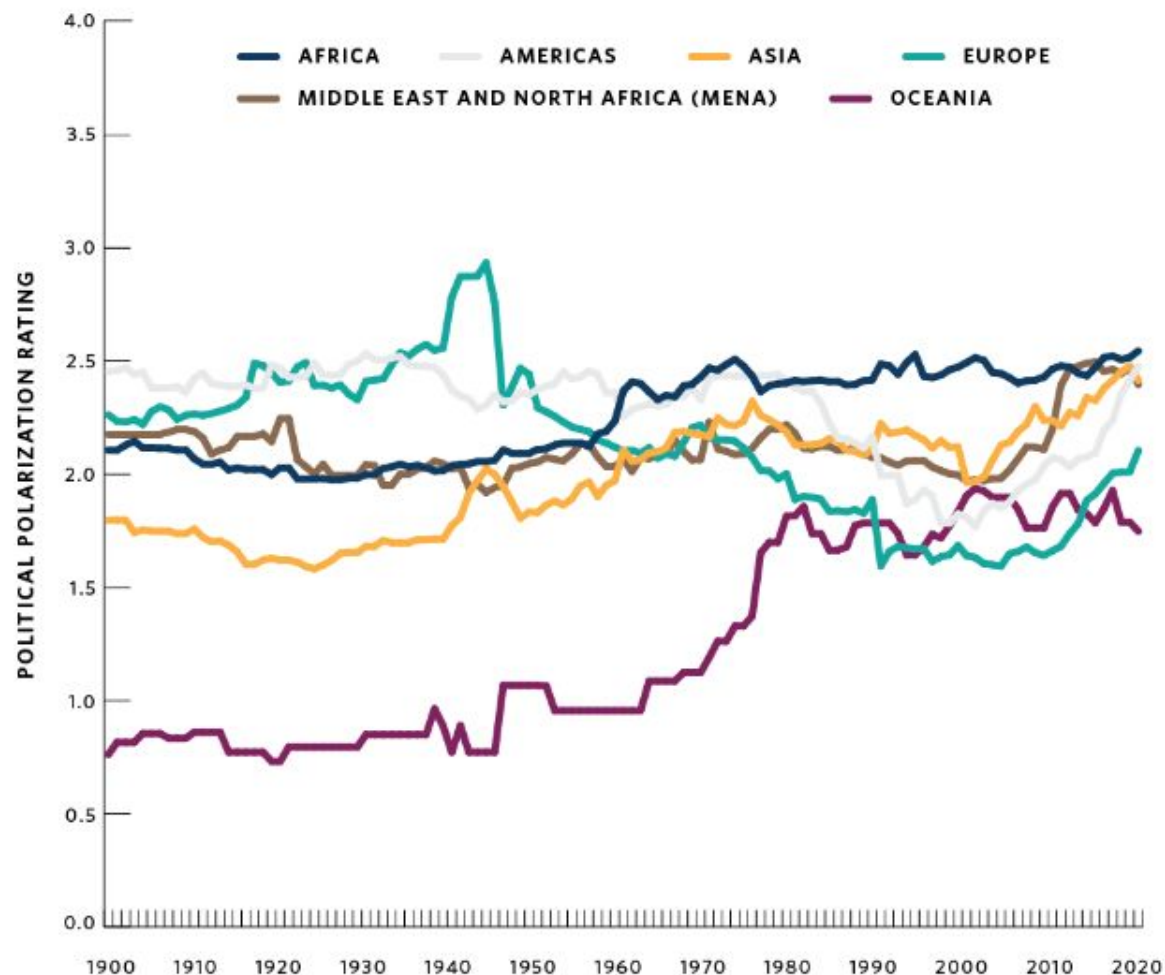
Source: IMF as of March 21, 2022

(Almost) Unprecedented Polarization



Just as we're competing more intensely across countries, political polarization is pulling us apart from within

Political Polarization by World Region Since 1900



Source: Carnegie Endowment for International Peace. As of May 2022



By some measures, the United States is now more polarized than Latin America

Polarization in Latin America and the United States Since 1900

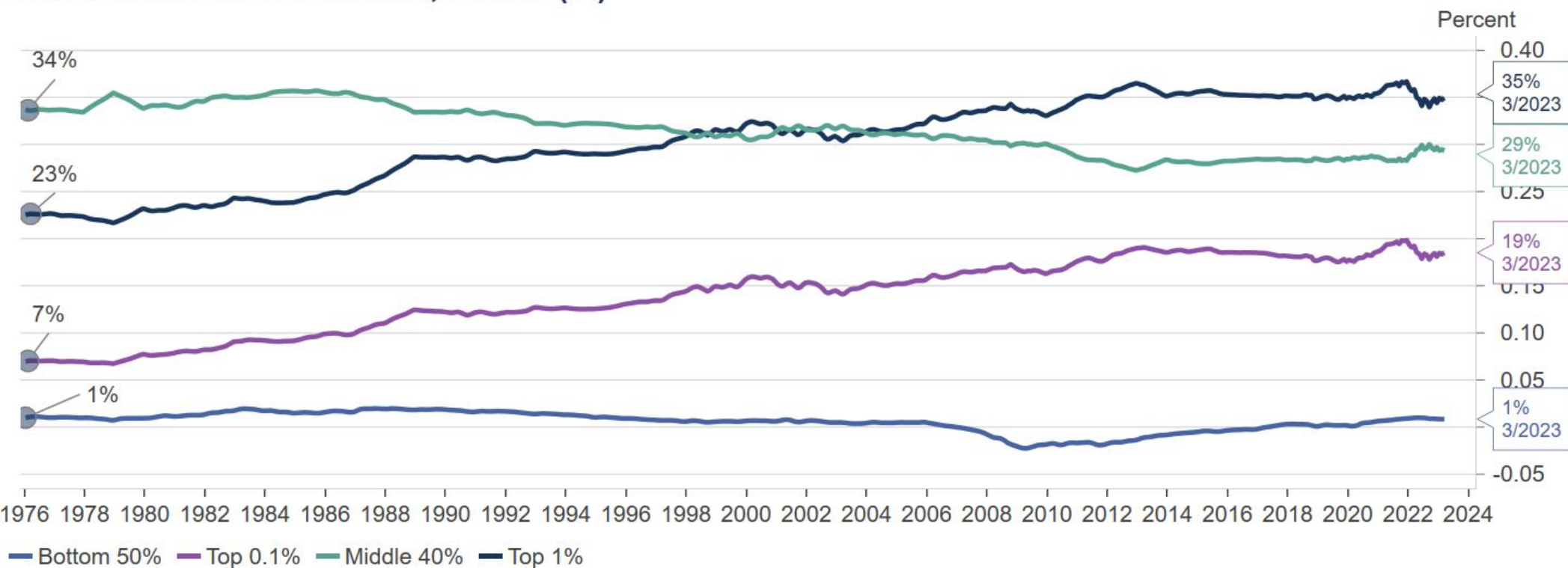


Source: Carnegie Endowment for International Peace. As of May 2022



Why? Extreme inequality

Share of Household Wealth, Adults (%)



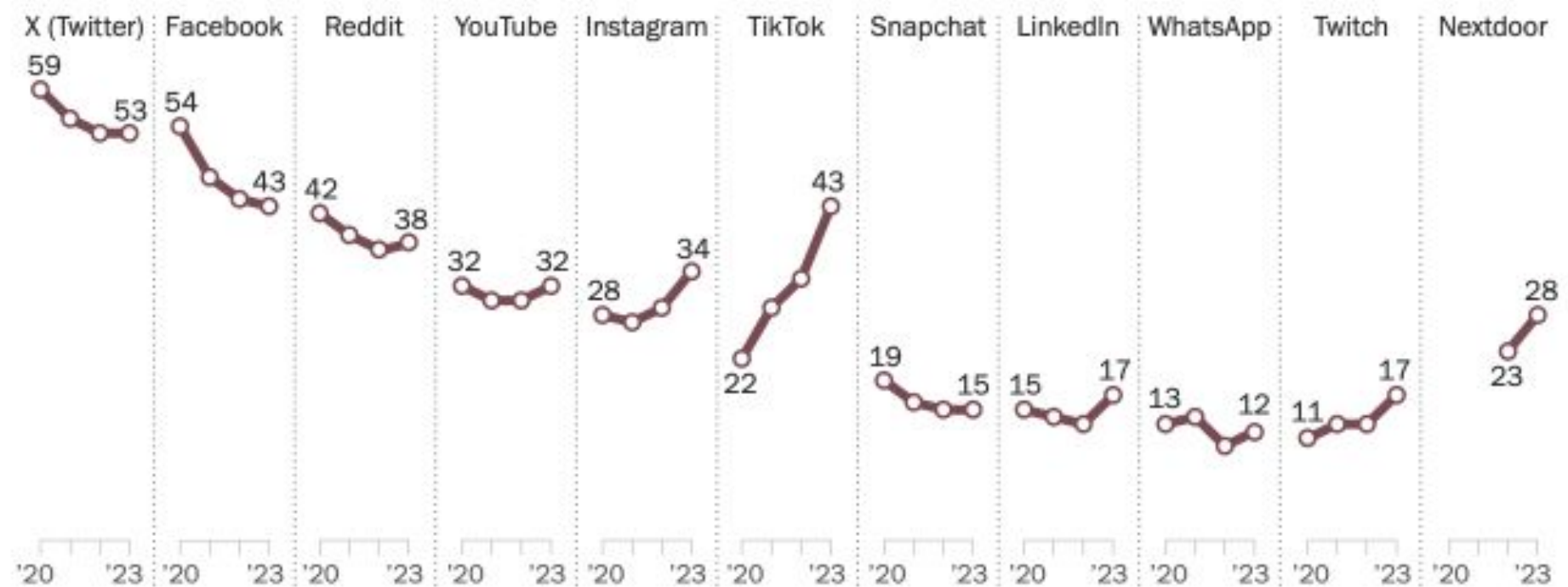
Source: [Realtimeinequality.org](https://realtimeinequality.org). As of March 2023



Why? Atomization of the media

Social media sites by portion of users who regularly get news there

% of each social media site's users who *regularly* get news there



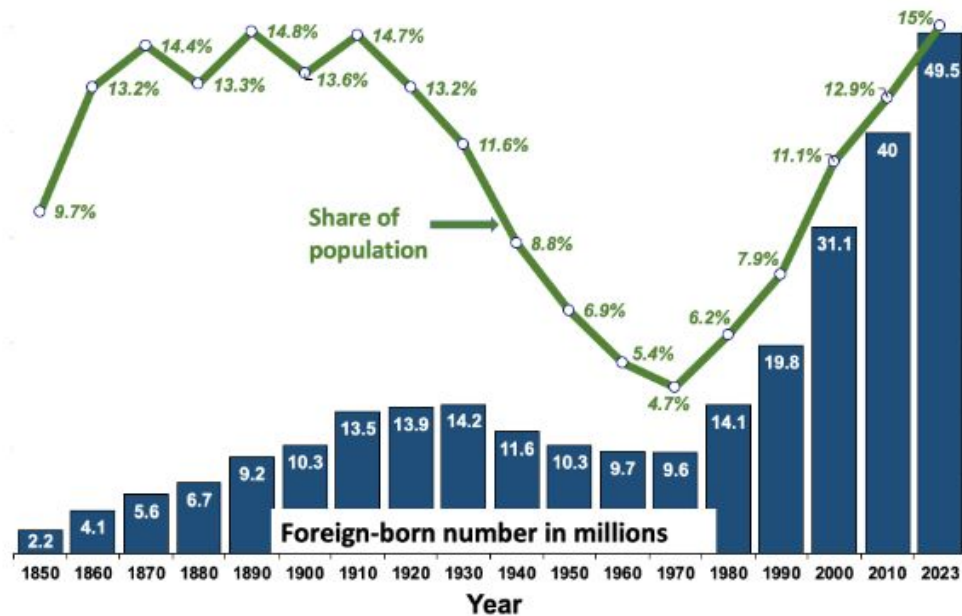
Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023.

PEW RESEARCH CENTER



Why? Historic levels of migration

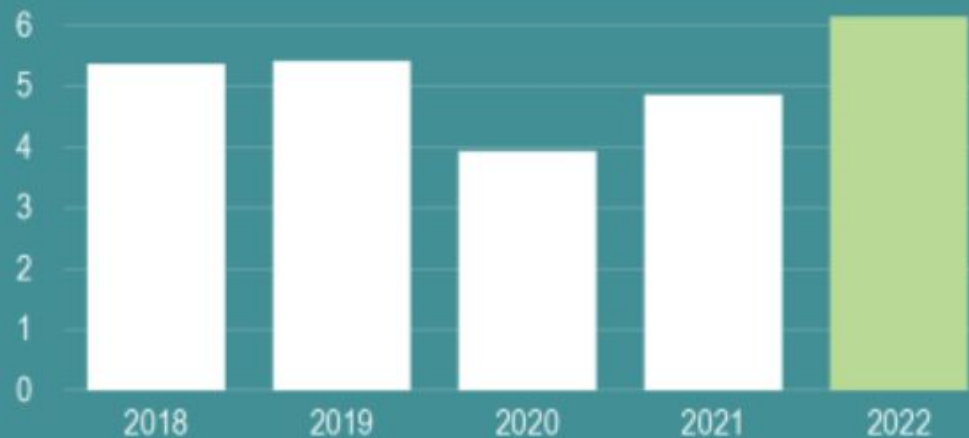
Figure 3. The foreign-born number and share are higher now than at any time in American history.



Sources: Decennial Census for 1850 to 2000, American Community Survey for 2010, October Current Population Survey (CPS) for 2023. The CPS does not include the institutionalized.

Migration to OECD countries is at a record high

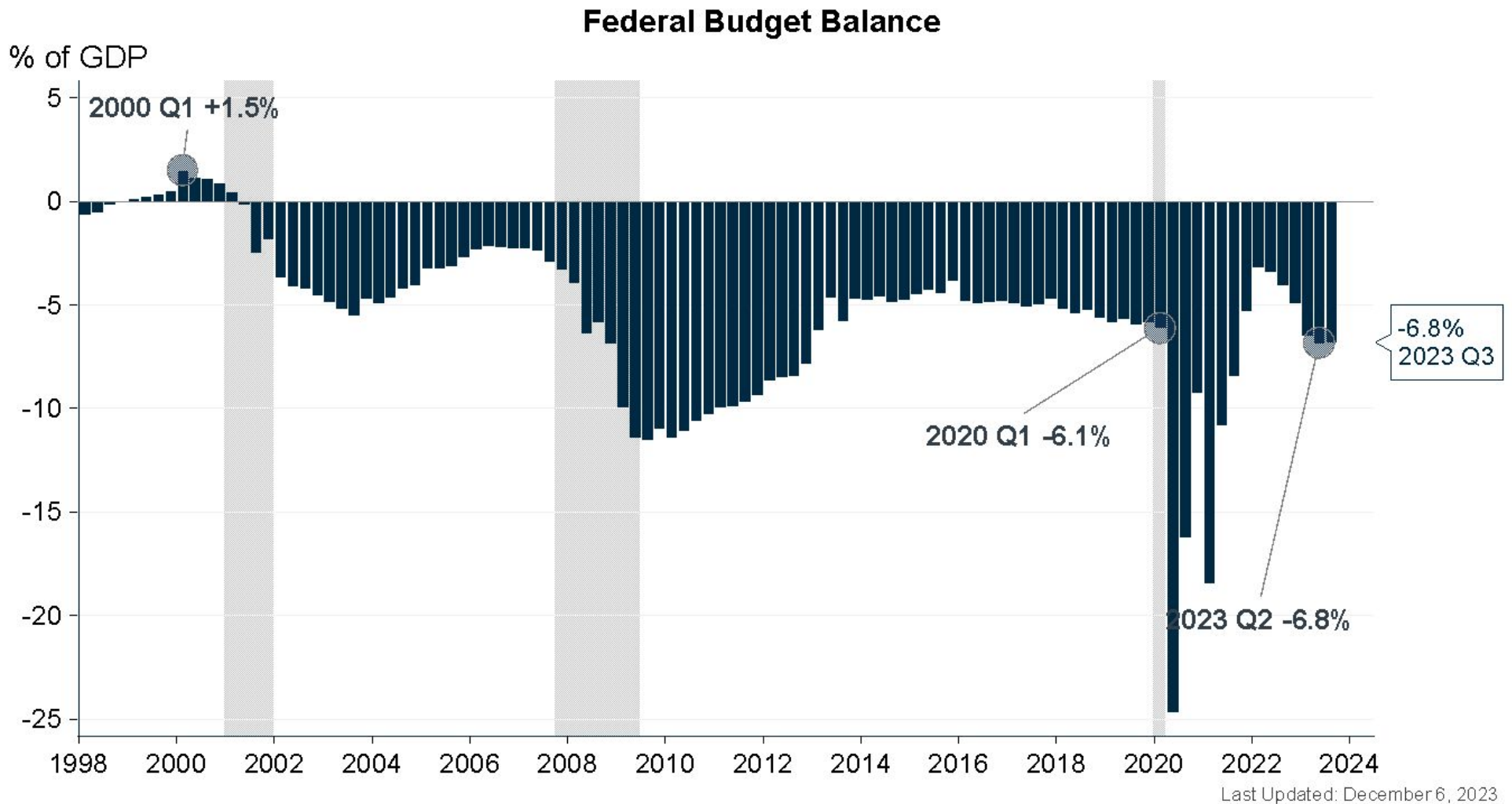
Permanent migration to the OECD, 2018-22, in millions



With more than 6 million new permanent immigrants (not including Ukrainian refugees), permanent-type migration to OECD countries reached a record level in 2022.

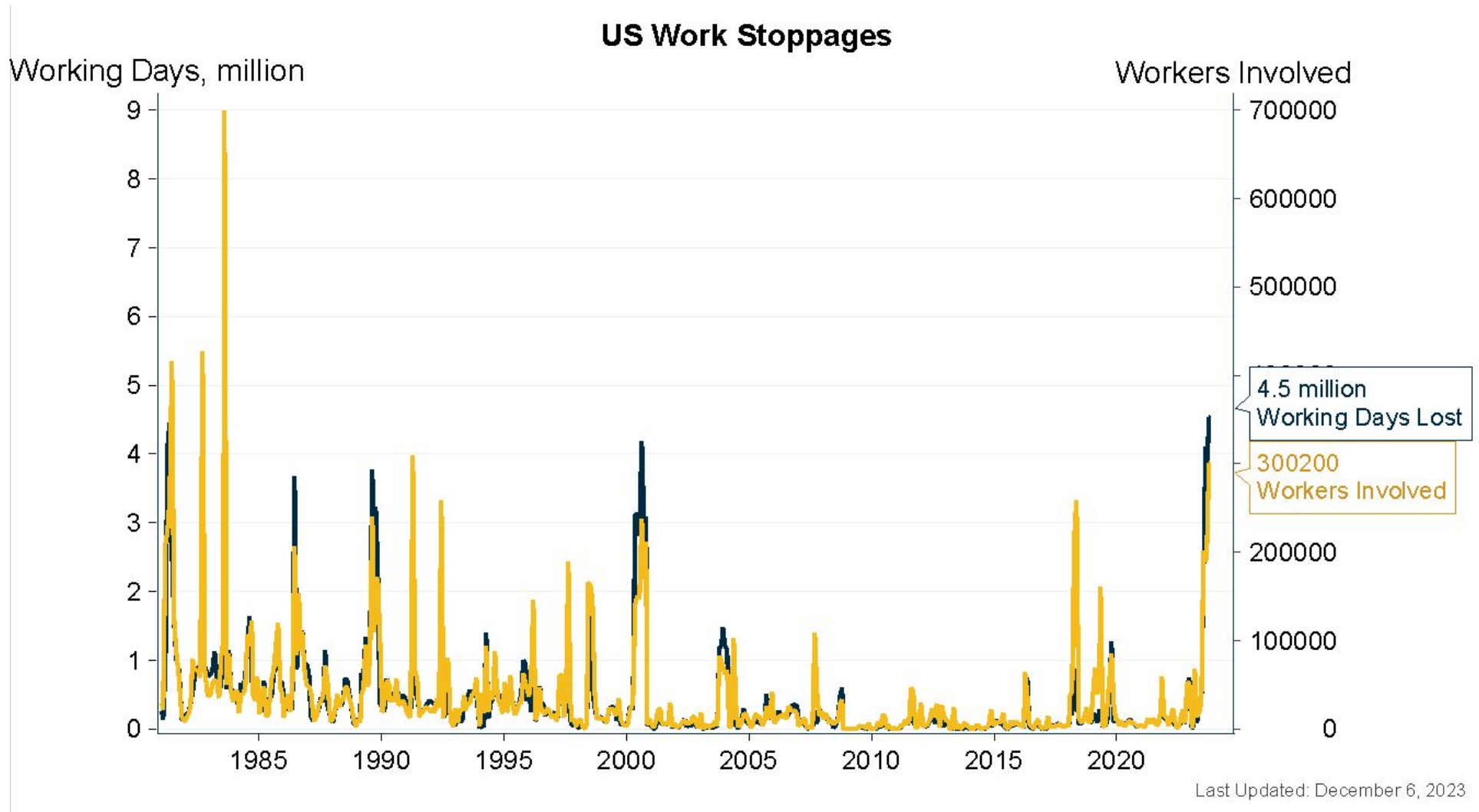


With less weight in the political center, fiscal expansion is the path of least political resistance...



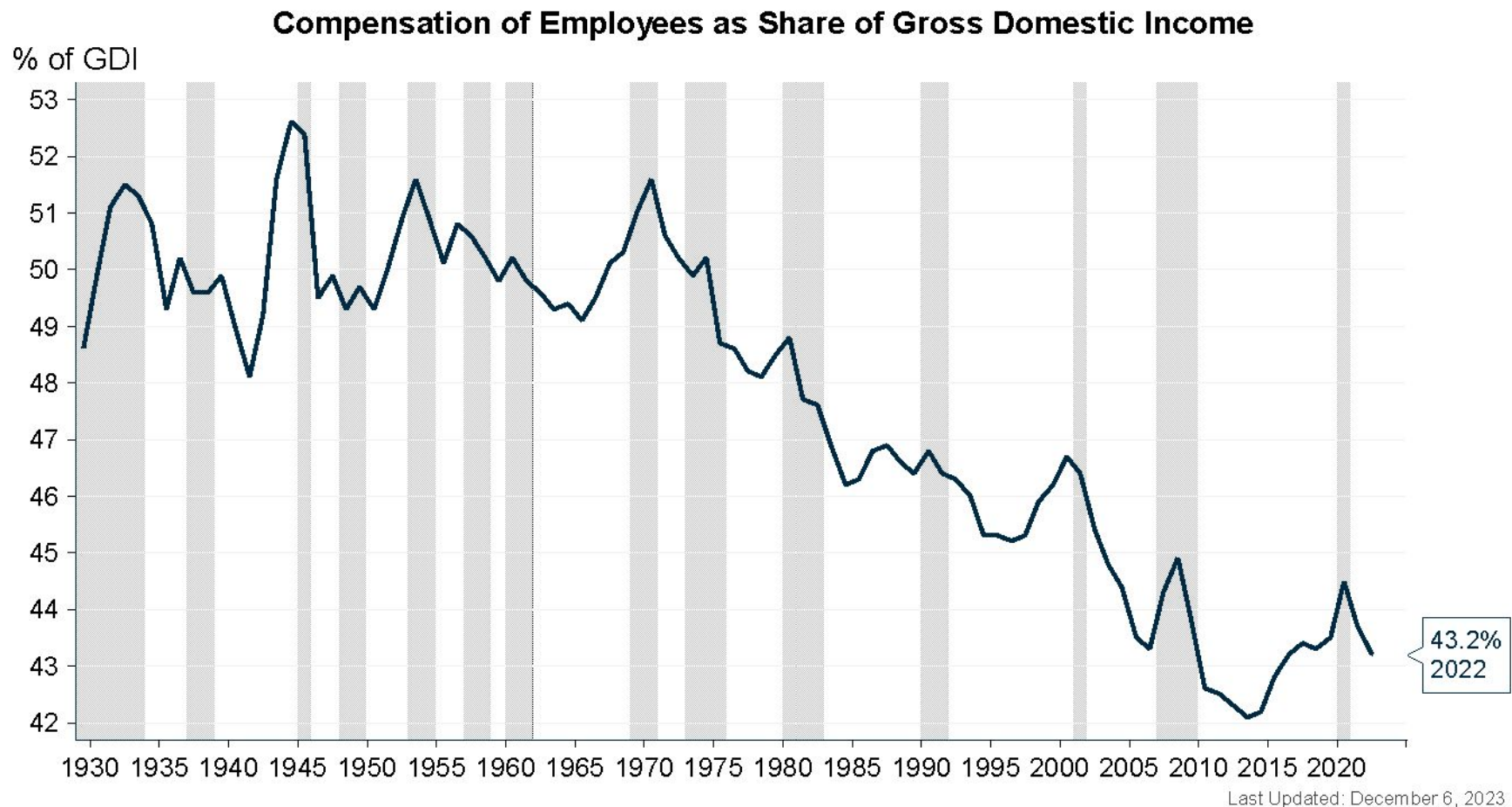


Perhaps so is the rise of labor bargaining power...





...after almost half a century of declining labor share of national income

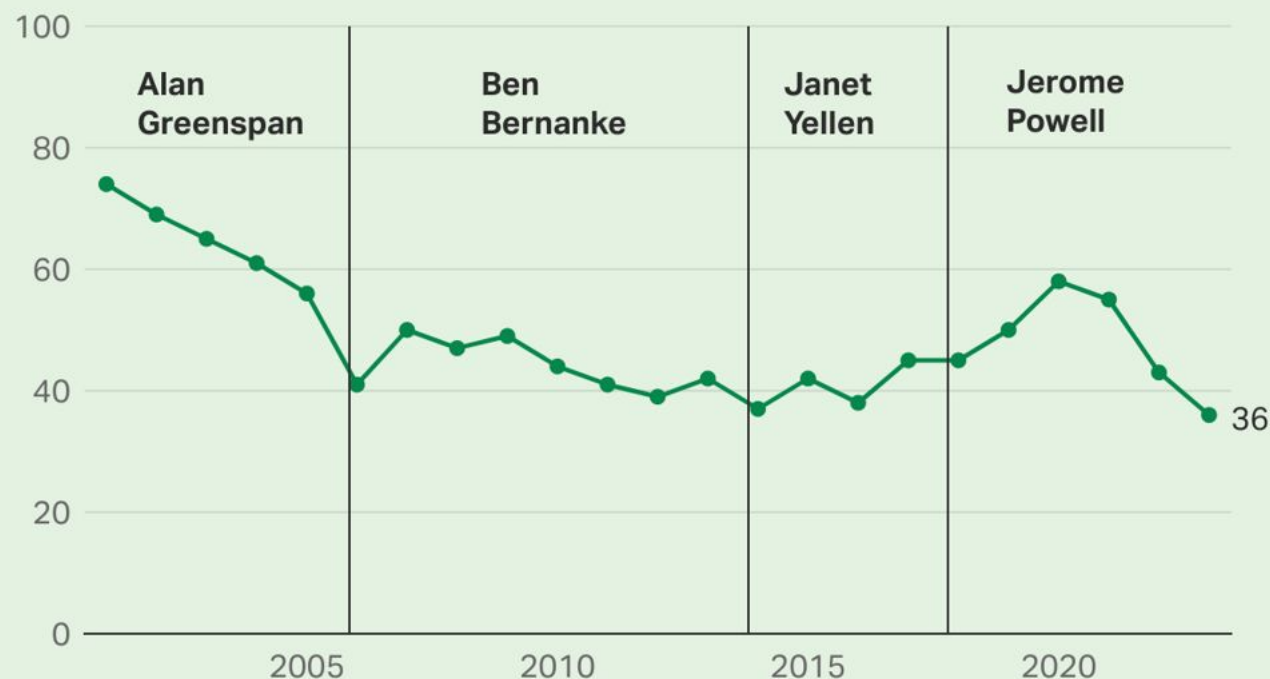




Less orthodox policy – and lower policy credibility - implies a higher risk premium on any cash flow-producing asset

Confidence in Federal Reserve Chair to Do/Recommend the Right Thing for the U.S. Economy

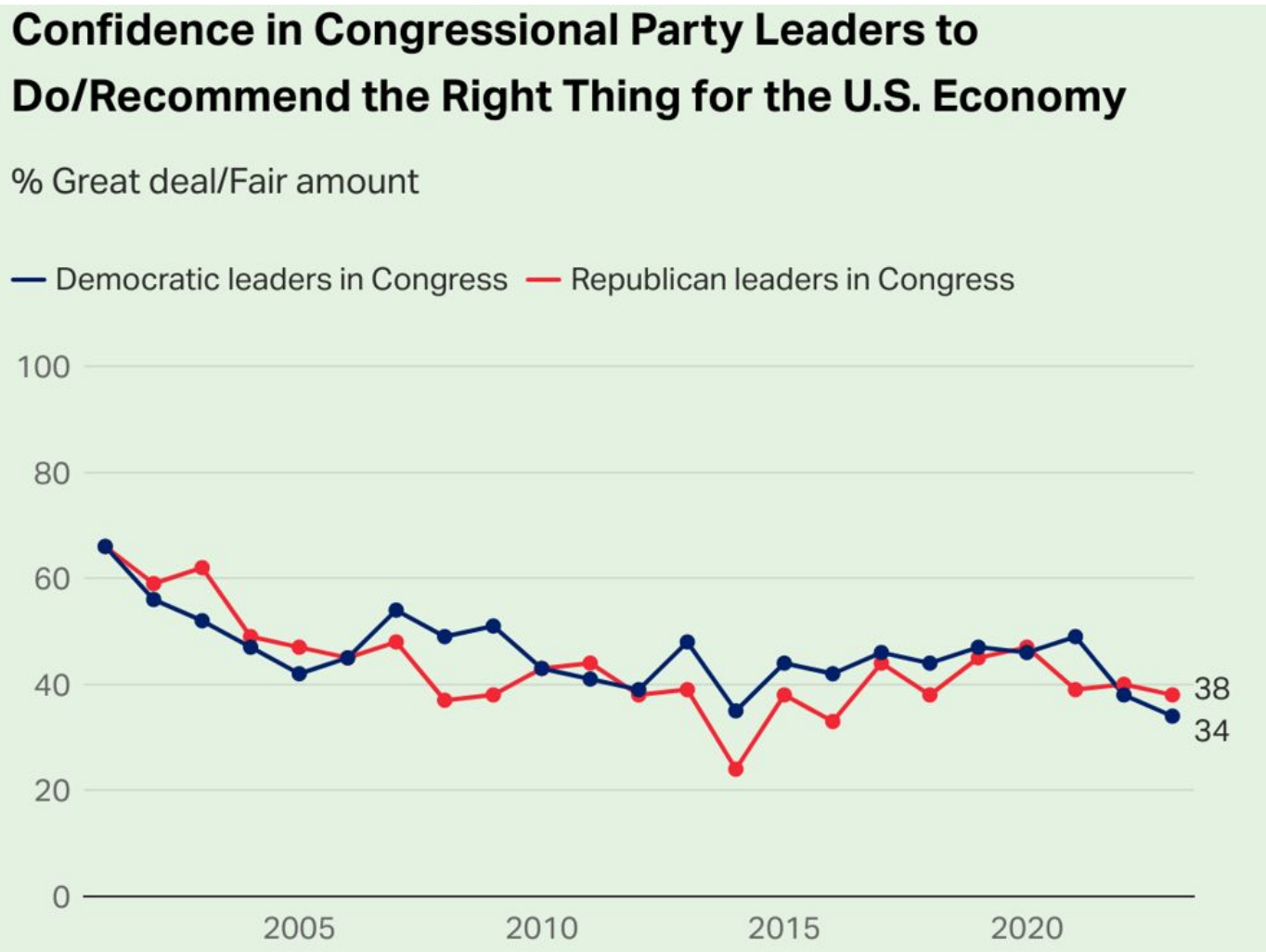
— % Great deal/Fair amount



Source: Gallup. As of May 2023



Less orthodox policy – and lower policy credibility - implies a higher risk premium on any cash flow producing asset (cont'd)



Source: Gallup. As of May 2023



Less orthodox policy – and lower policy credibility - implies a higher risk premium on any cash flow-producing asset (cont'd)

Changes in Confidence in Economic Leaders, 2022-2023

Figures are the percentage with a great deal or fair amount of confidence in each to do or to recommend the right thing for the economy

	2022	2023	Change
	%	%	pct. pts.
Federal Reserve Chairman Jerome Powell	43	36	-7
President Joe Biden	40	35	-5
The Democratic leaders in Congress	38	34	-4
The Republican leaders in Congress	40	38	-2



It also implies a structural decline in consumer “vibes” about the state of the economy

University of Michigan Consumer Sentiment: Republicans vs. Democrats

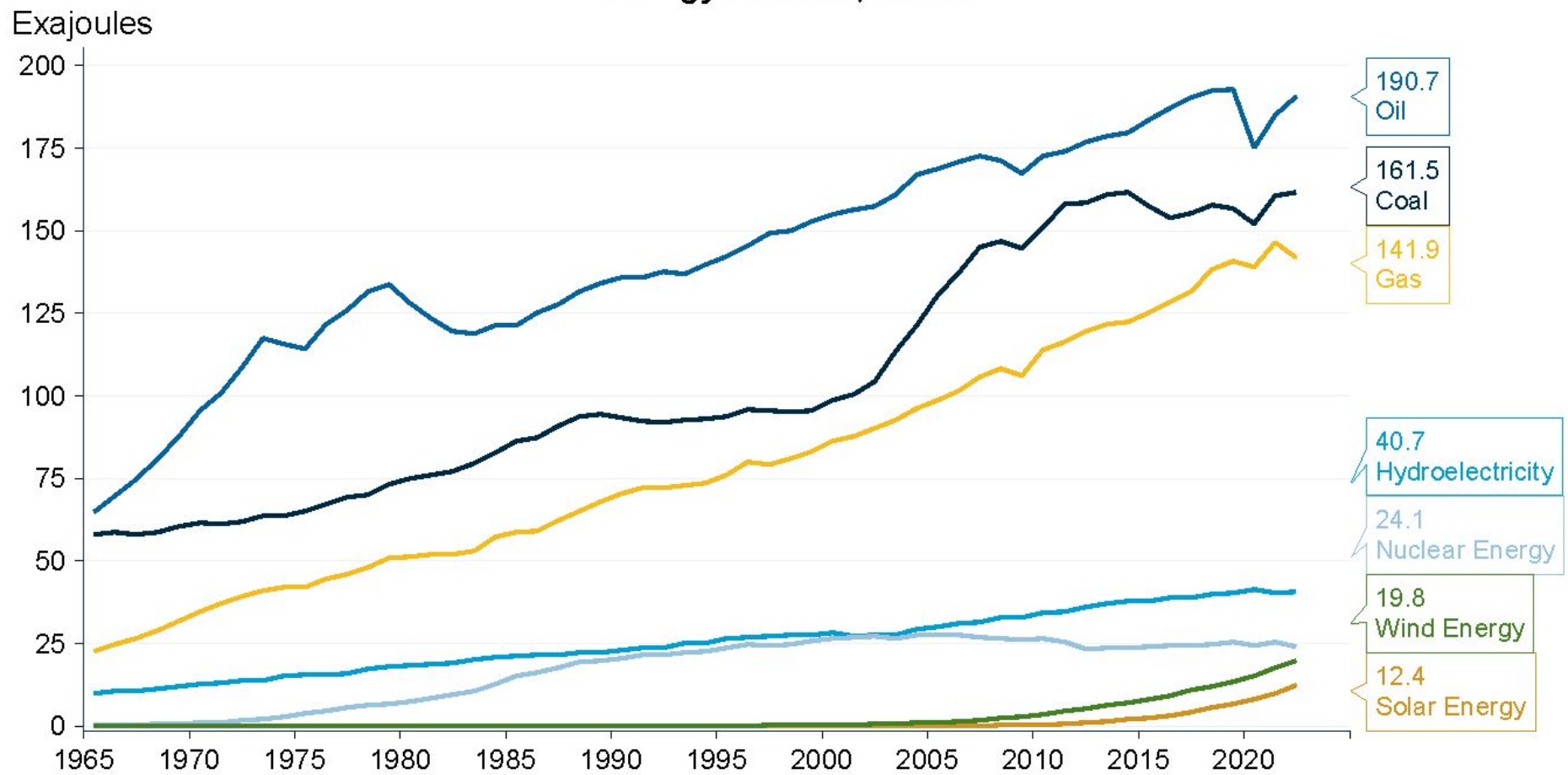


Bumpy Energy Transition to Renewables



Despite the parabolic growth in recent years, energy production from renewable sources is still only about 20% of the total

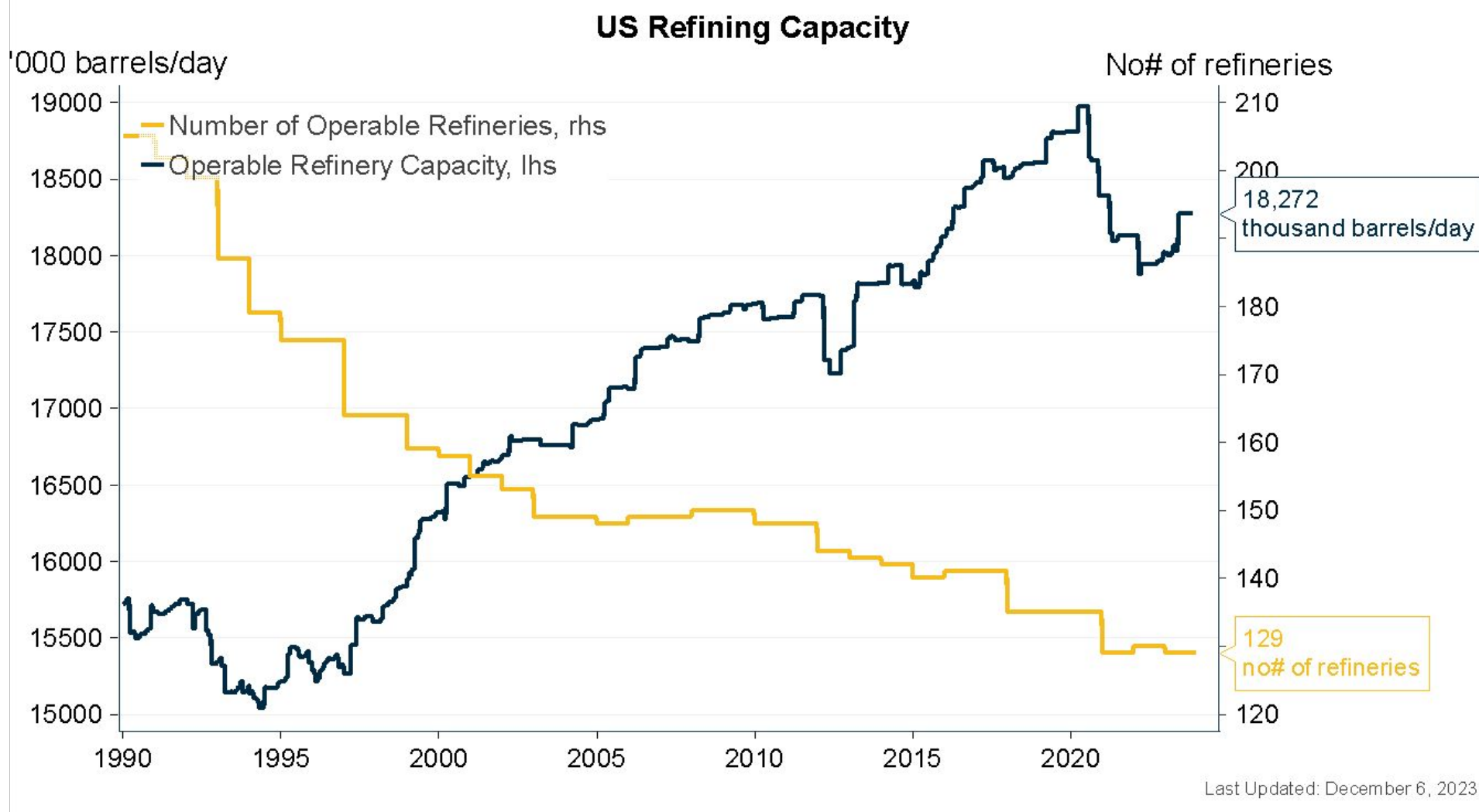
Energy Sources, Global



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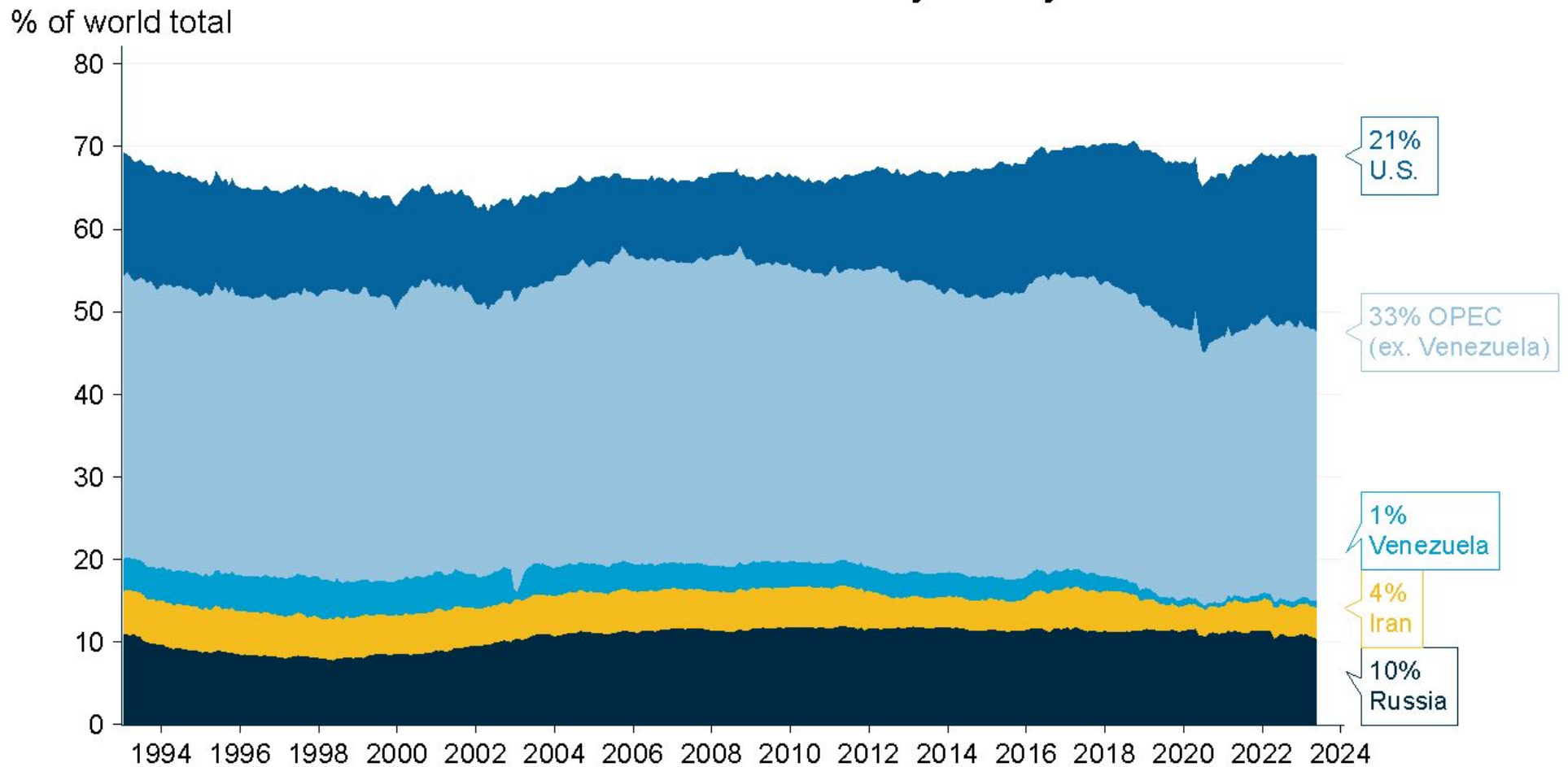
Meanwhile, the legacy fossil fuel infrastructure is losing productive capacity...





...while almost half of global oil and gas production is arguably at risk of weaponization

Oil and Gas Production by Country

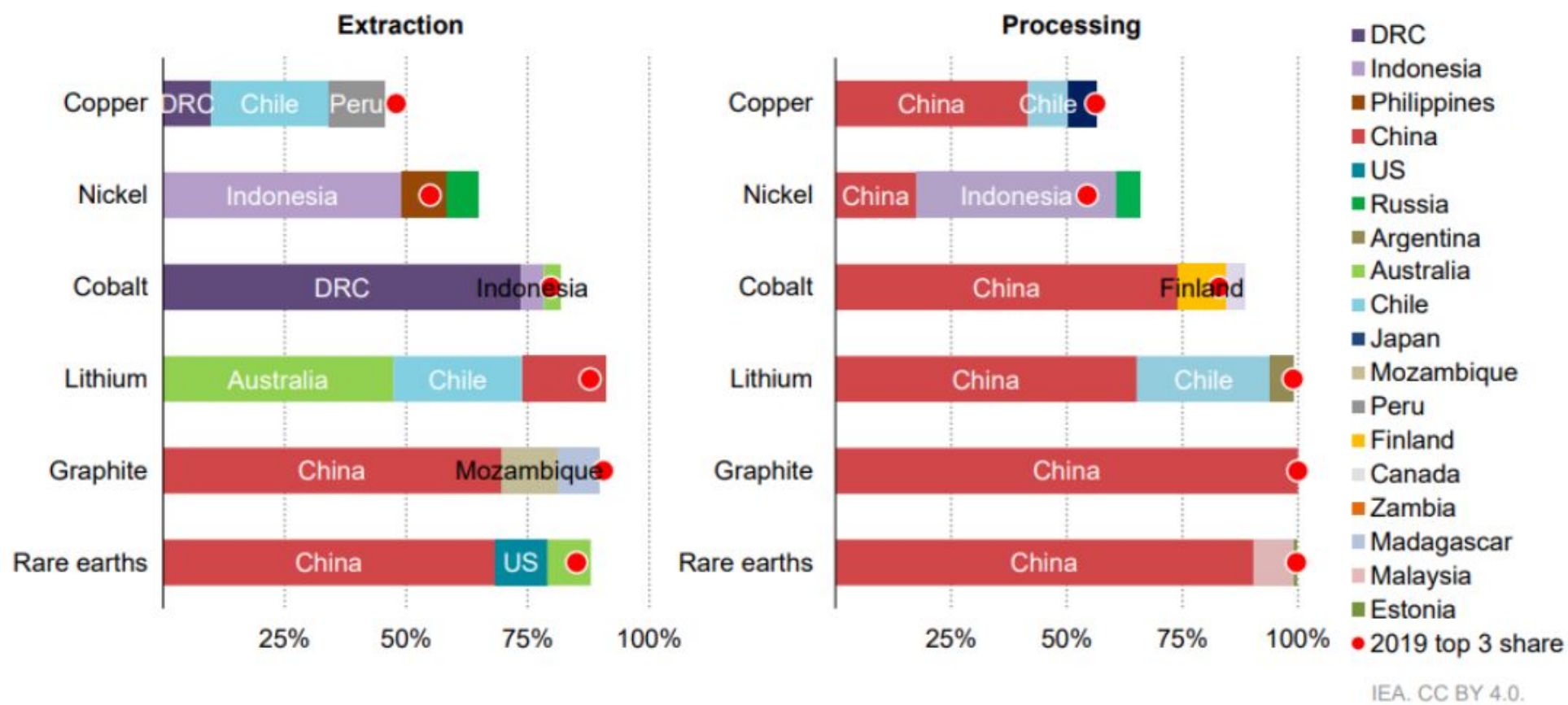


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Unfortunately, fossil fuels aren't the only energy source that might get weaponized

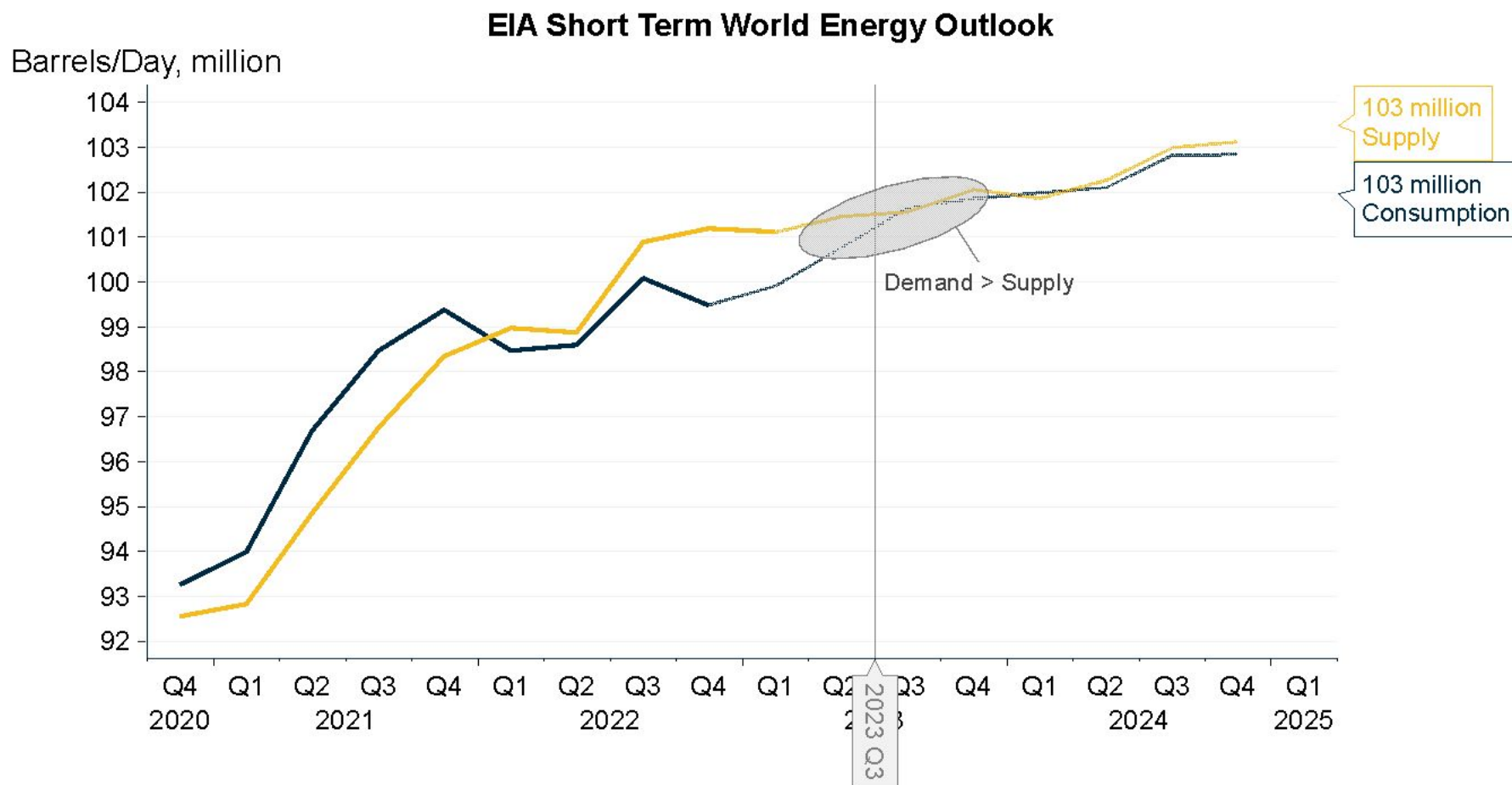
Share of Top Three Producing Countries in Total Production for Selected Resources and Minerals, 2022



Source: IEA analysis based on S&P Global, USGS, Mineral Commodity Summaries as of June 2023. Notes: DRC stands for the Democratic Republic of the Congo. Graphite extraction is for natural flake graphite. Graphite processing is for spherical graphite for battery grade.



We must brace for bumpy periods of imbalance between global energy supply and demand during the transition



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Reorientation of Global Supply Chains



Not many people read G7 statements, but the Hiroshima communique was genuinely important

MAY 20, 2023

G7 Hiroshima Leaders' Communiqué

- Our policy approaches are not designed to harm China nor do we seek to thwart China's economic progress and development. A growing China that plays by international rules would be of global interest. We are not decoupling or turning inwards. At the same time, we recognize that economic resilience requires de-risking and diversifying. We will take steps, individually and collectively, to invest in our own economic vibrancy. We will reduce excessive dependencies in our critical supply chains.

2023 mentions of China: 20

2022 mentions of China: 14

2021 mentions of China: 4

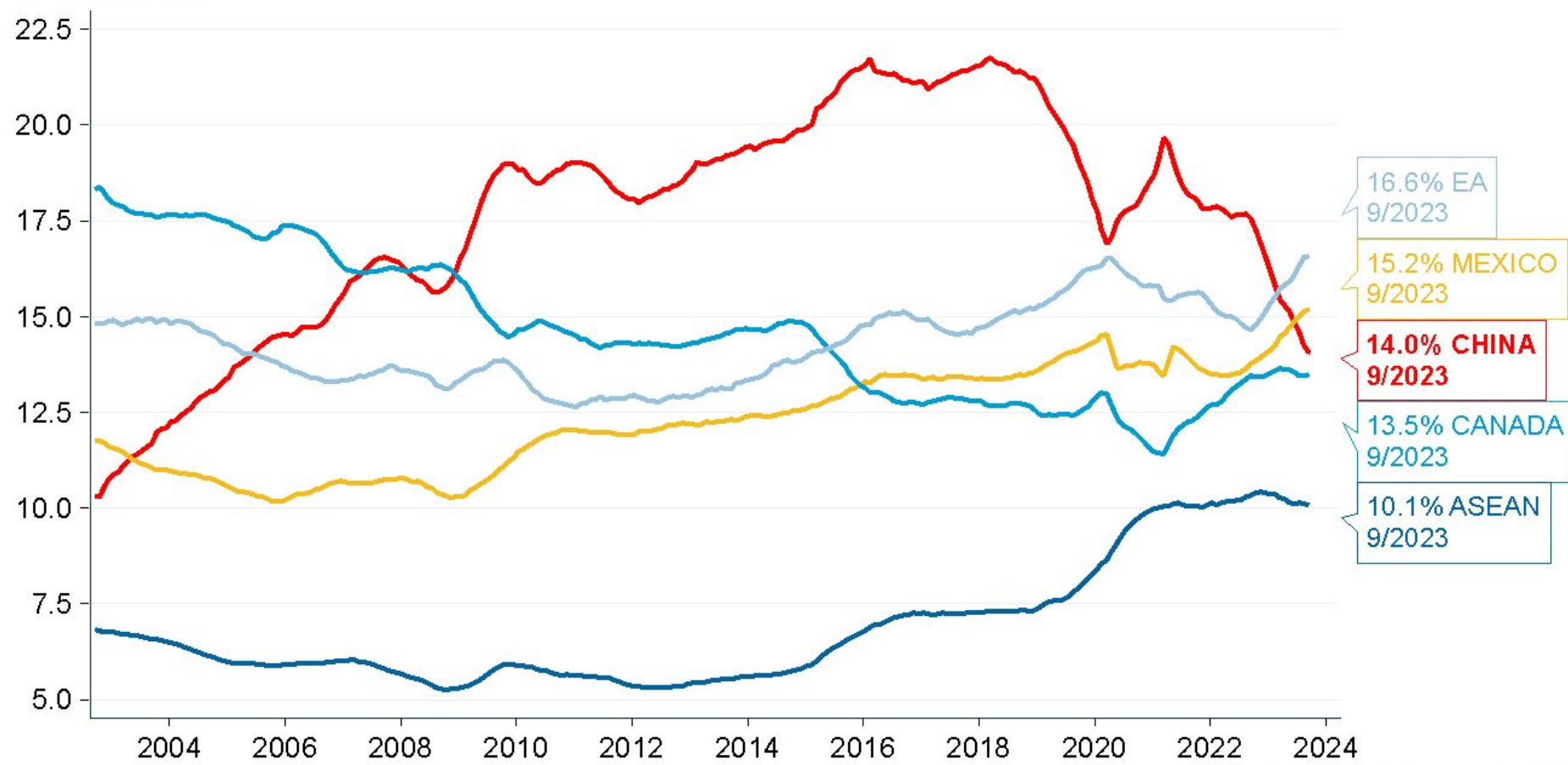
2020 mentions of China: 0



There is growing evidence of de-risking from China in global supply chains

Countries' Share of US Imports

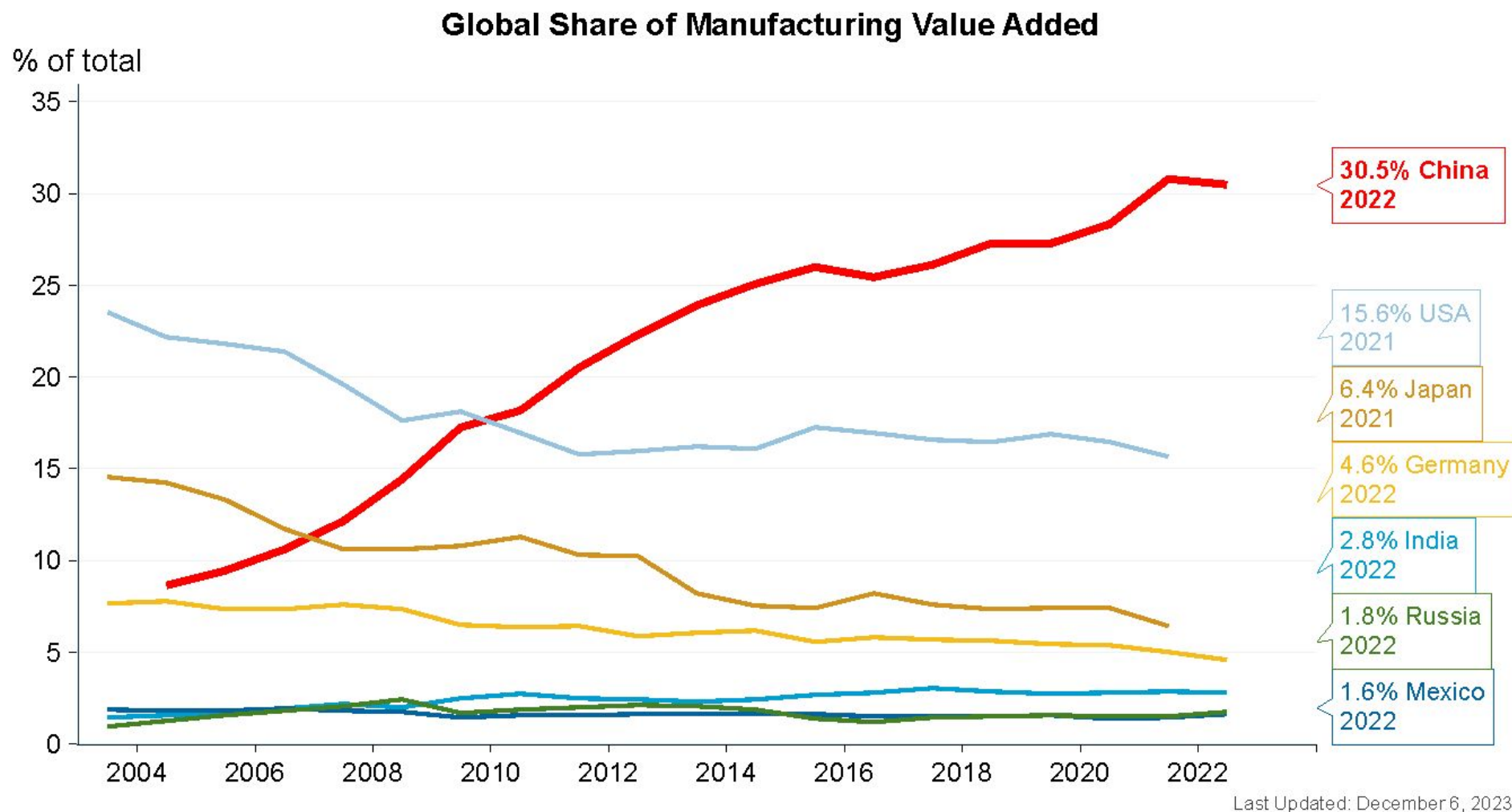
%, 12-month MA



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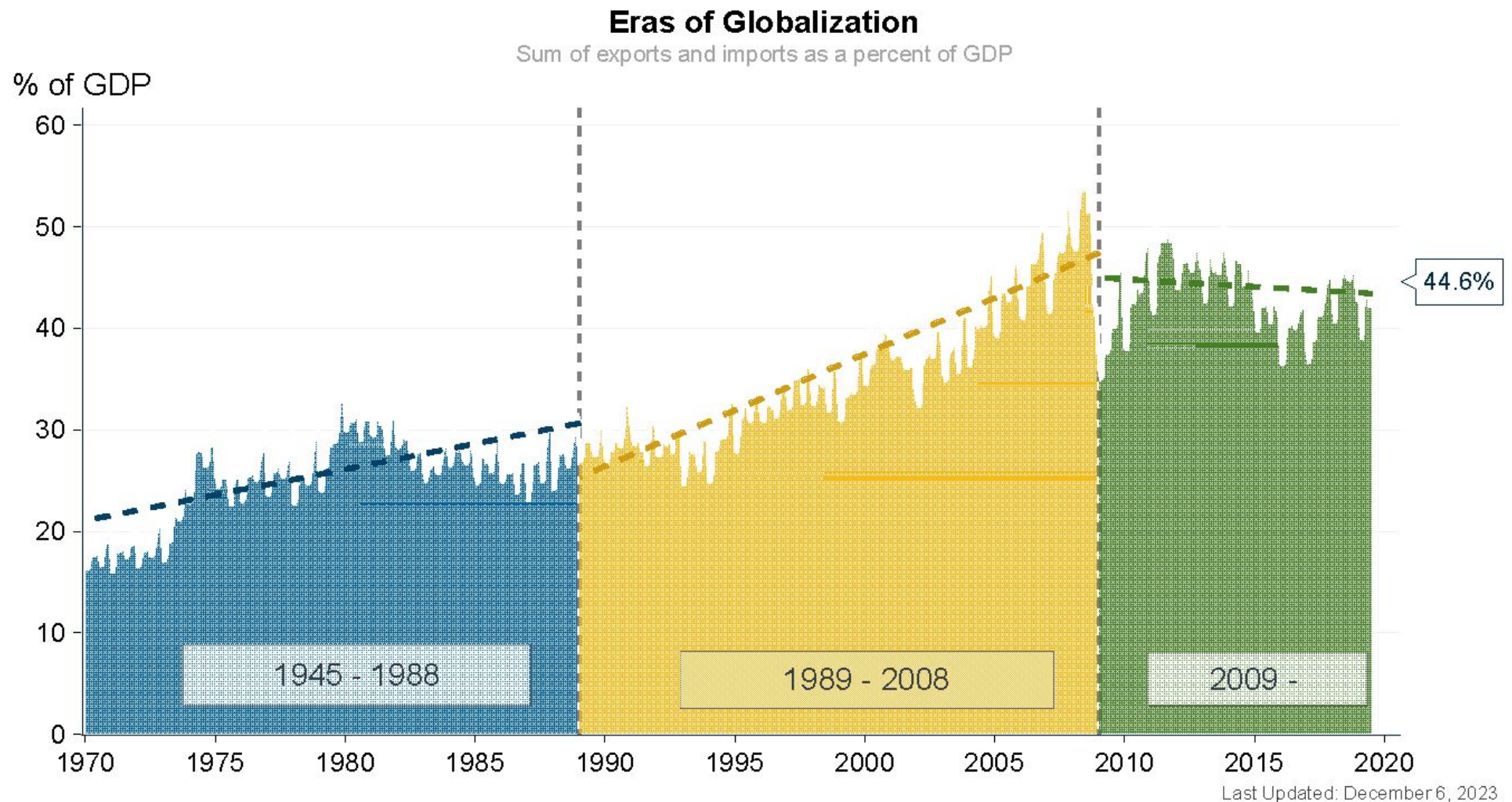


The implications for efficiency, economies of scale, and productivity will be sizeable across the global economy





Globalization isn't dead, but we have entered an era of “slowbalization”



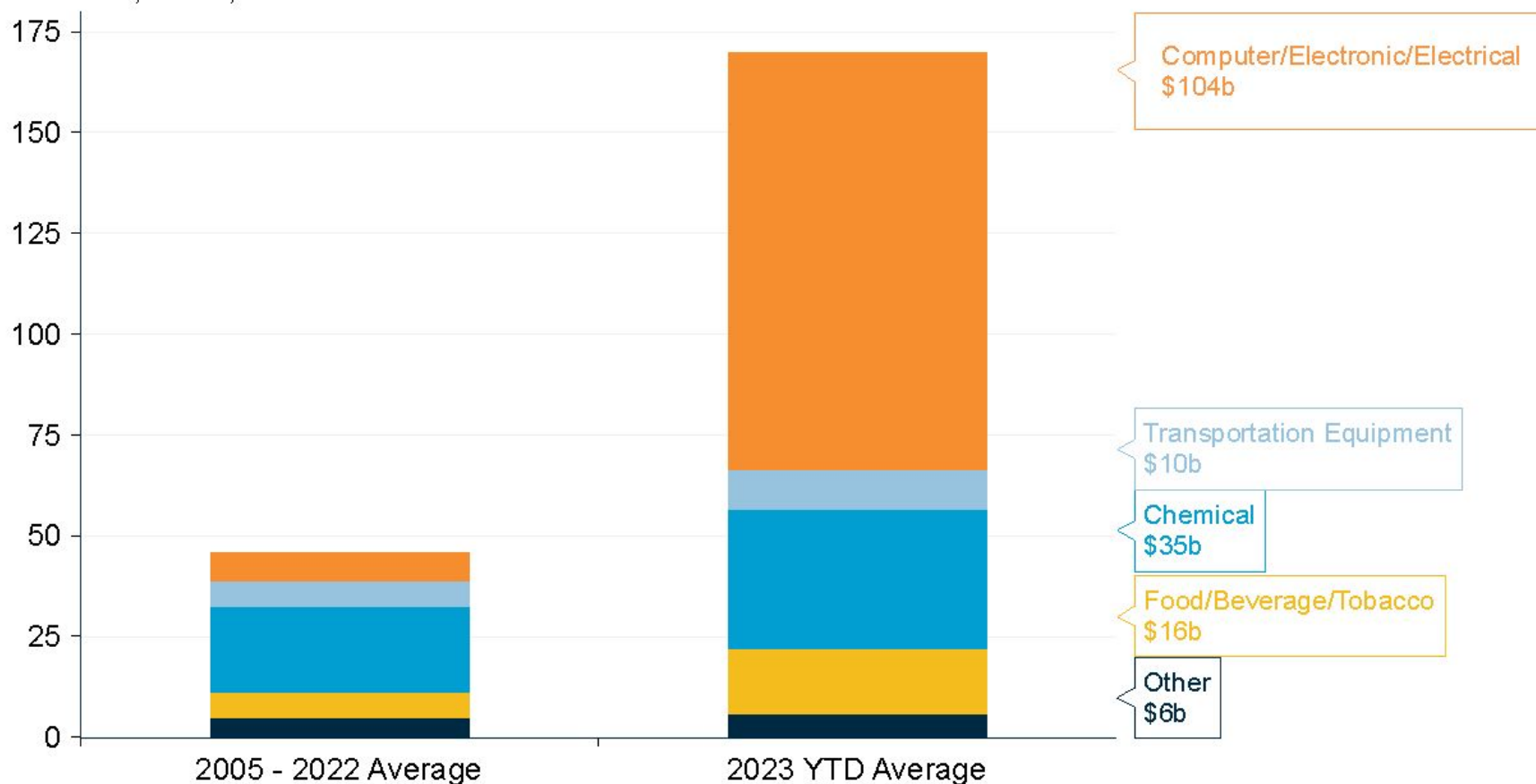


“Slowbalization” is the corollary of a return to industrial policy – the causality runs both ways

Real Manufacturing Construction Spending by Industry

Deflated by the PPI for intermediate demand materials and components for construction.

\$ Billion, in 2022 terms, SAAR, billion

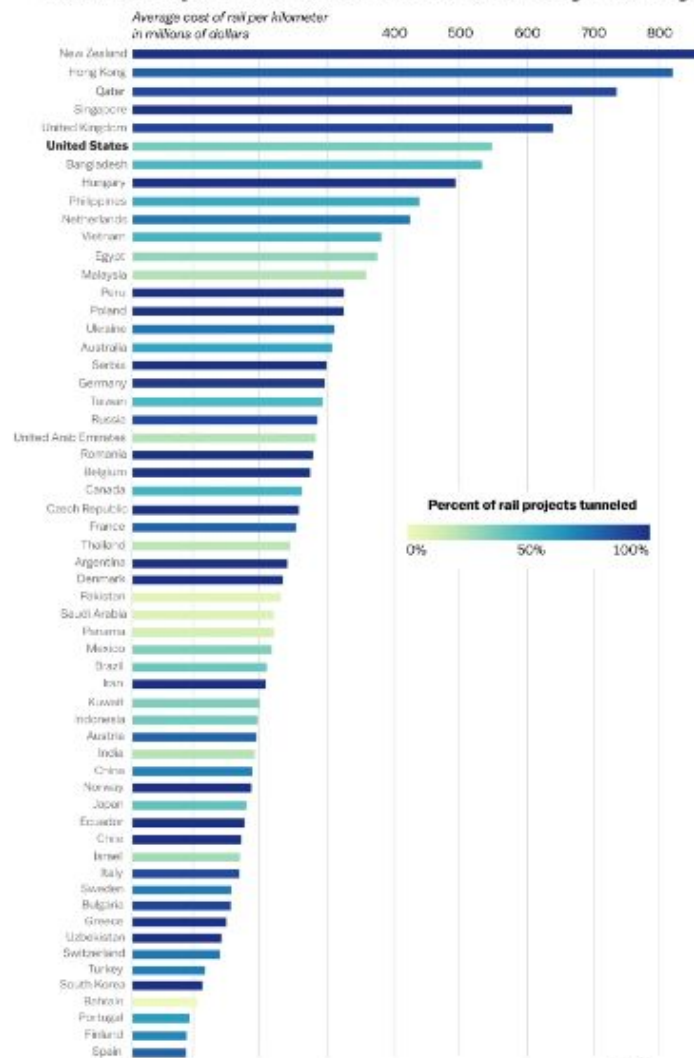


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Execution is everything...the difference between a productivity boom and bust

Costs of rapid rail transit infrastructure by country

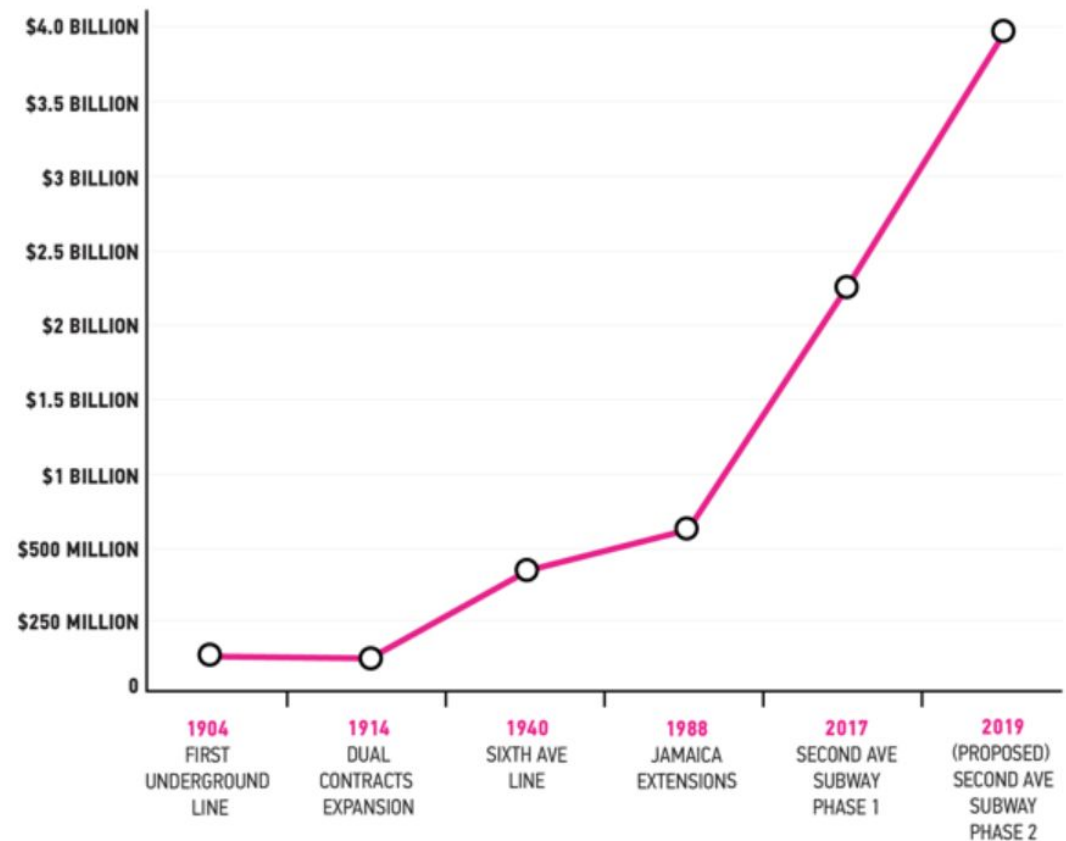


Source: Transit Costs Project

Vox

Christina Animashun/Vox; Transit Costs Project

Subway construction cost per mile, in 2017 dollars



Distinct Technology Ecosystems



Technology has emerged as the main theater of geopolitical competition

US list of 14 emerging technologies

Artificial intelligence (AI)
and machine learning
technology

Additive
manufacturing
(3D printing)

Position, Navigation
and Timing (PNT)
technology

Microprocessor
technology

Quantum information
and sensing
technology

Advanced computing
technology

Data analytics
technology

Logistics
technology

Brain-computer
interfaces

Robotics

Advanced
Materials

Advanced
surveillance
technologies

Biotechnology

Hypersonics



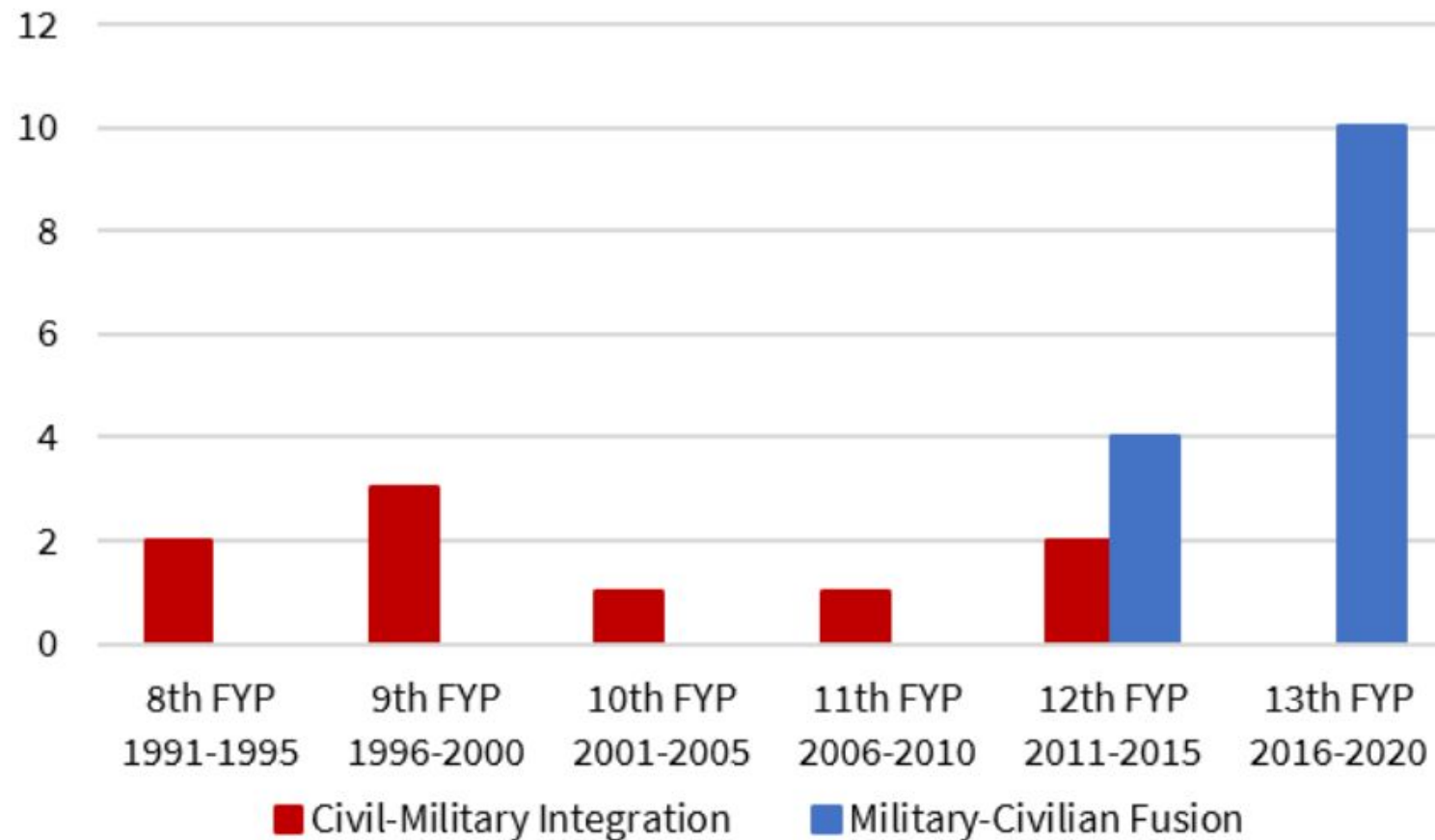
Source: U.S. Federal Register – Review of Controls for Certain Emerging Technologies





Technologies like AI, semiconductors, biotech, and quantum are foundational for military pre-eminence

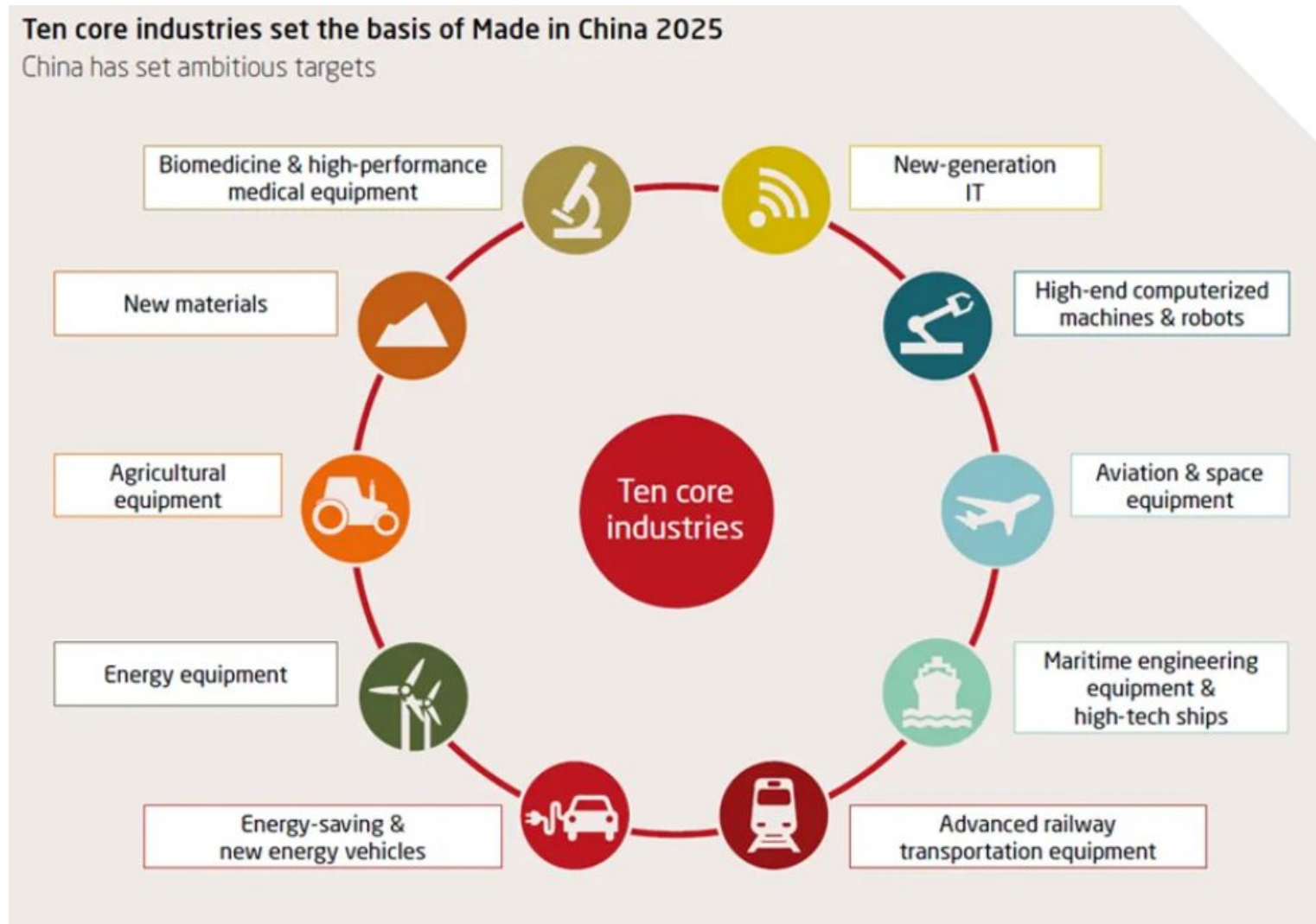
Mentions of “Military-Civil Fusion” in China’s Five-Year Plans



Source: People's Daily, Center for Strategic and International Studies. As of August 2019



The announcement of “Made in China 2025” in 2015 was a watershed moment in shaping today’s tech competition



Source: People's Daily, Center for Strategic and International Studies. As of August 2019



At best, global tech competition could motivate a “race to the top” on innovation with positive global spillovers

Government Commitments to Develop Domestic Semiconductor Capabilities

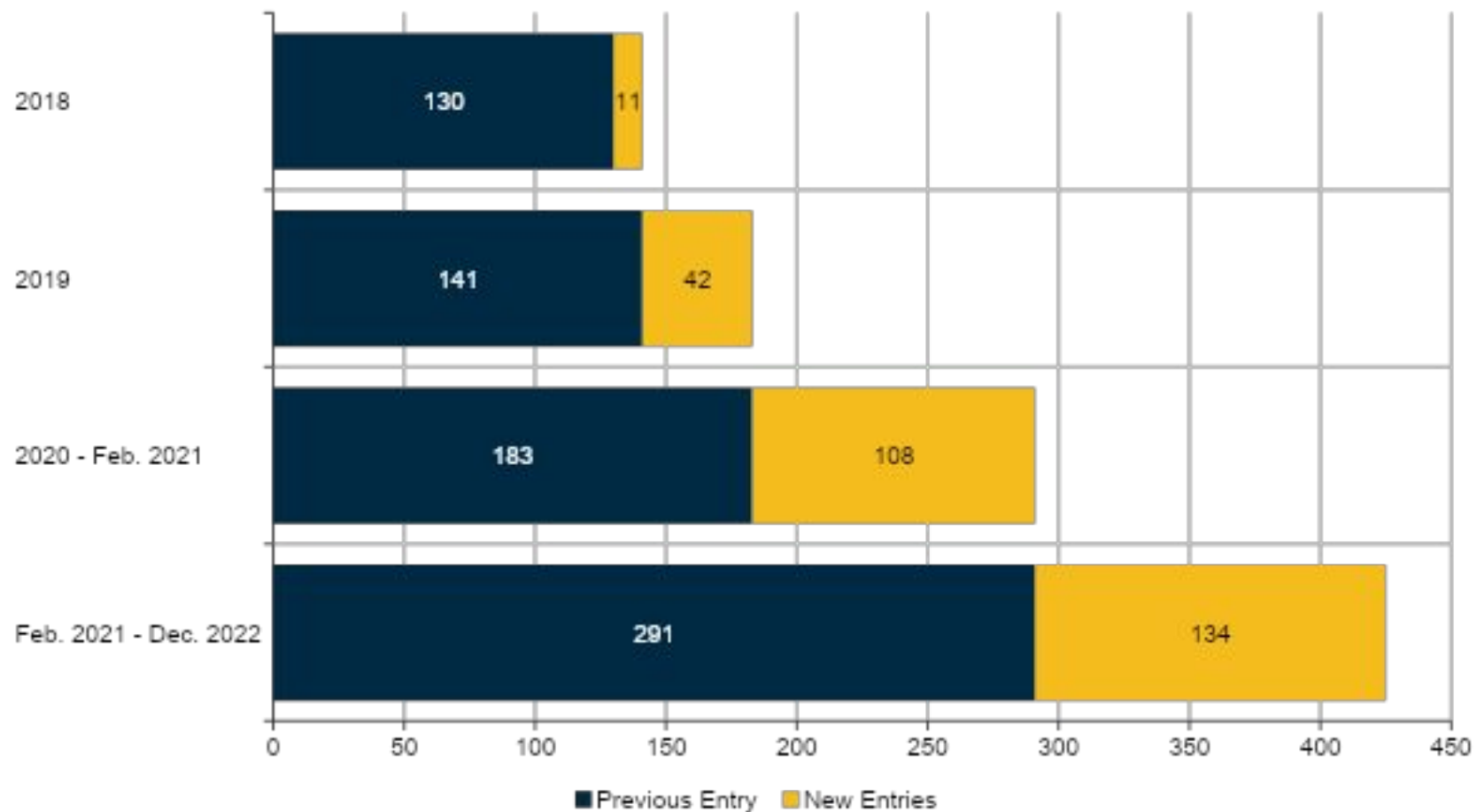
	Incentives	Year announced	Stated Goals
U.S.	\$52 billion	2022	Fortify the economy and national security
China	\$150 billion over 10 years	2015	Raise domestic chip production to 70% of total demand by 2025, from ~10% in 2017 and ~18% currently
	~\$140 billion	2023	
EU	\$47 billion	2023	Raise global share of chip production to 20% by 2030 from ~7% currently
Singapore	\$25 billion over 5 years	2020	Match global capacity growth at minimum
Taiwan	Tax credits on R&D and equipment procurement as much as 50% of total taxes owed	2023	Keep cutting-edge technology at home and maintain the island's leadership in chips
Japan	\$6.8 and \$2.8 billion for 2022 and 2023 budget, respectively	2023	Strengthen economic security by taking on supply chain vulnerabilities and gain control over advanced technologies and infrastructure
South Korea	up to \$65b over 3 years	2021	Build the world's largest semiconductor supply chain by 2030
India	\$10 billion	2022	Build a semiconductor ecosystem to enhance national security

Source: PGIM Fixed Income, Local News Reports, official government releases, SIA, ESIA as of August 2023



But the dominant impact will be a rapid increase in export controls: the dimensions of a “small yard, high fence” will expand

Number of Chinese Companies on the Department of Commerce Entity List





Because capital travels with know-how, FDI (and possibly portfolio flows) will remain under heavy scrutiny

FDI into China (Source: SAFE), in \$ billions

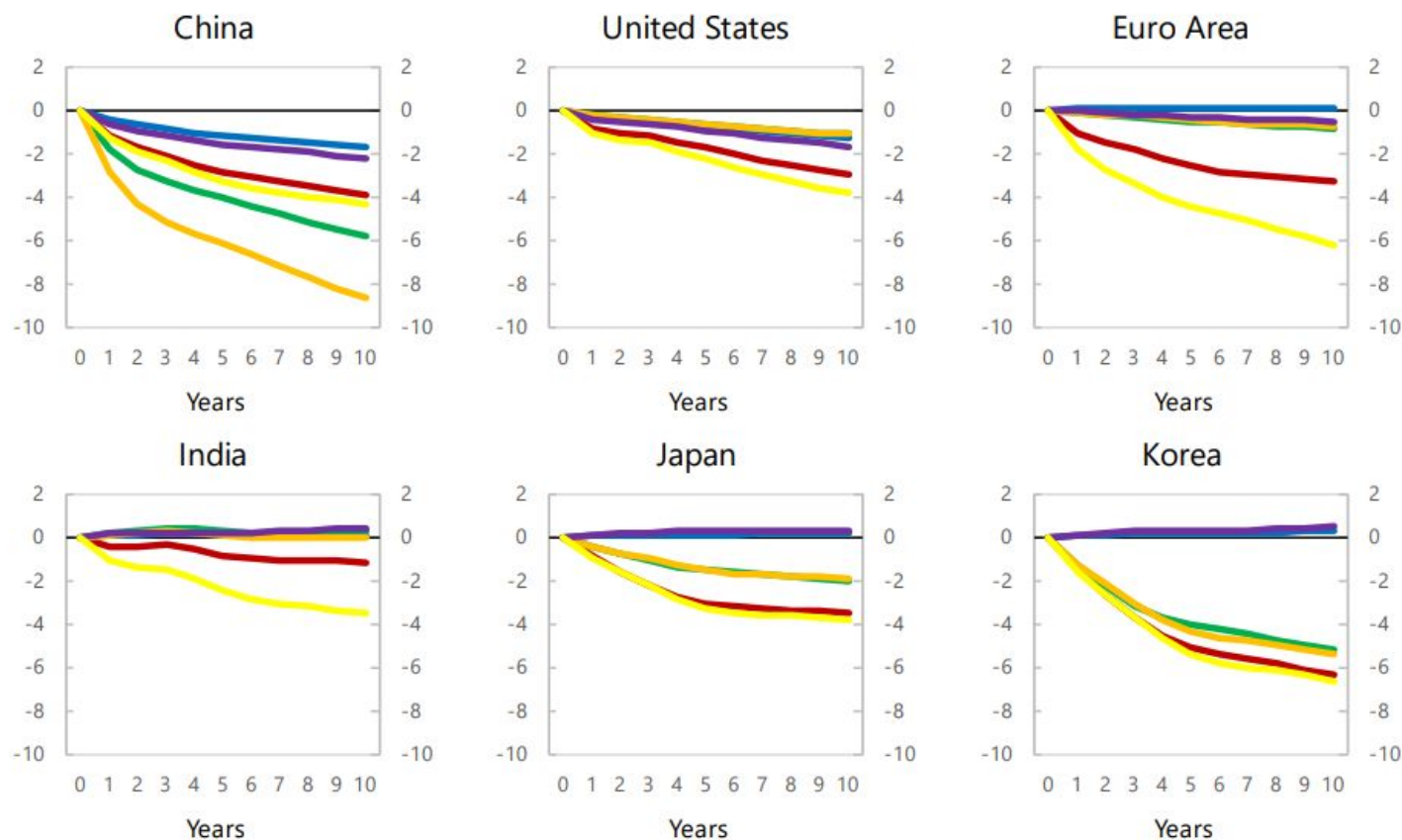




A full tech war could reduce US GDP by as much as 4% over a decade, with Europe, China, and EMs bearing heavier costs

Technological Decoupling Scenarios: Real GDP for Selected Regions (IMF)

- Scenario 1: China-U.S. w/o preferential attachment
- Scenario 2: China-U.S. with preferential attachment
- Scenario 3: China-OECD w/o preferential attachment
- Scenario 4: China-OECD with preferential attachment
- Scenario 5: China-U.S.-Germany w/o preferential attachment
- Scenario 6: China-U.S.-Germany with preferential attachment



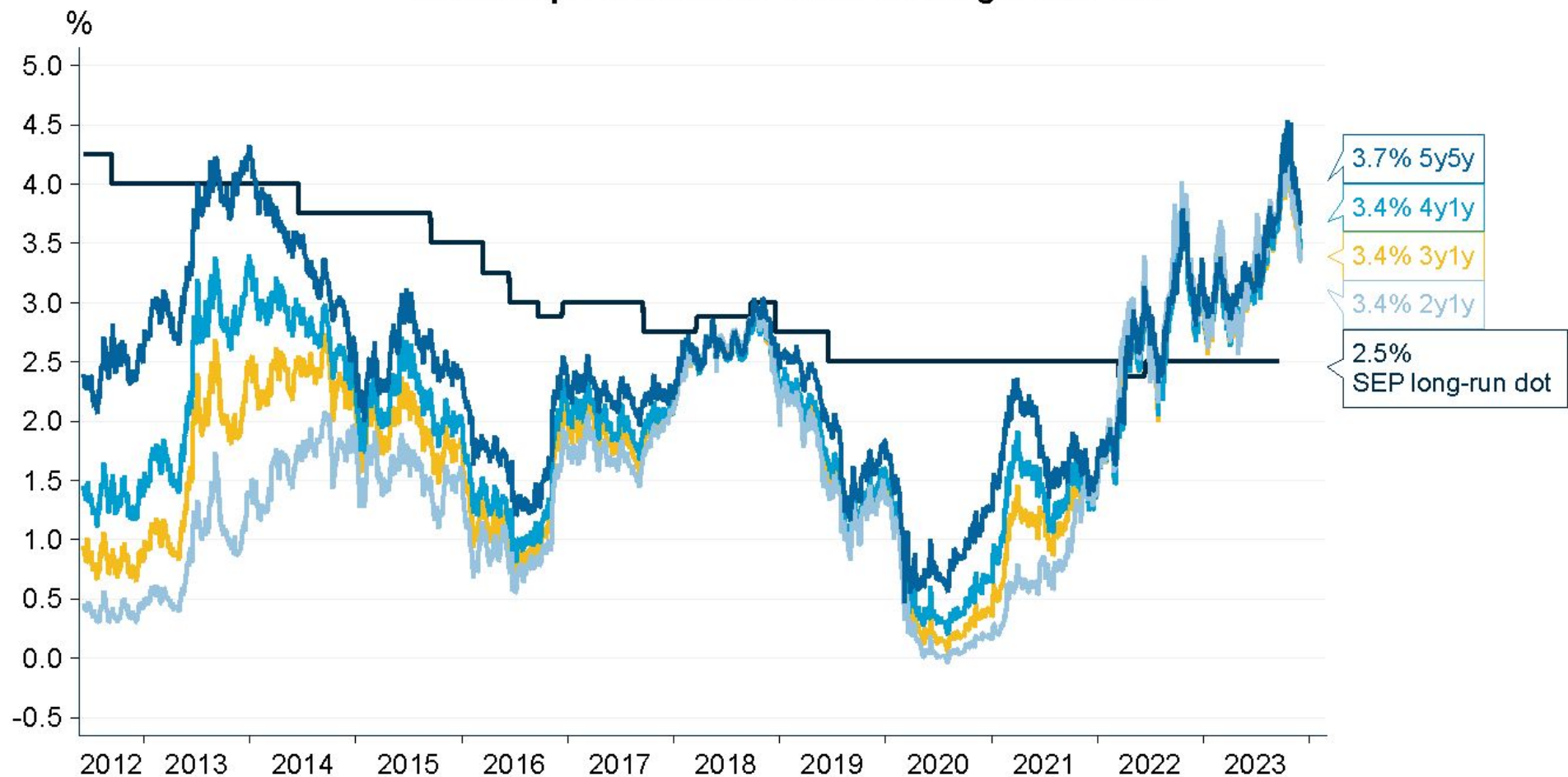
Source: IMF. As of March 2021.

Implications for Markets & Economic Policy



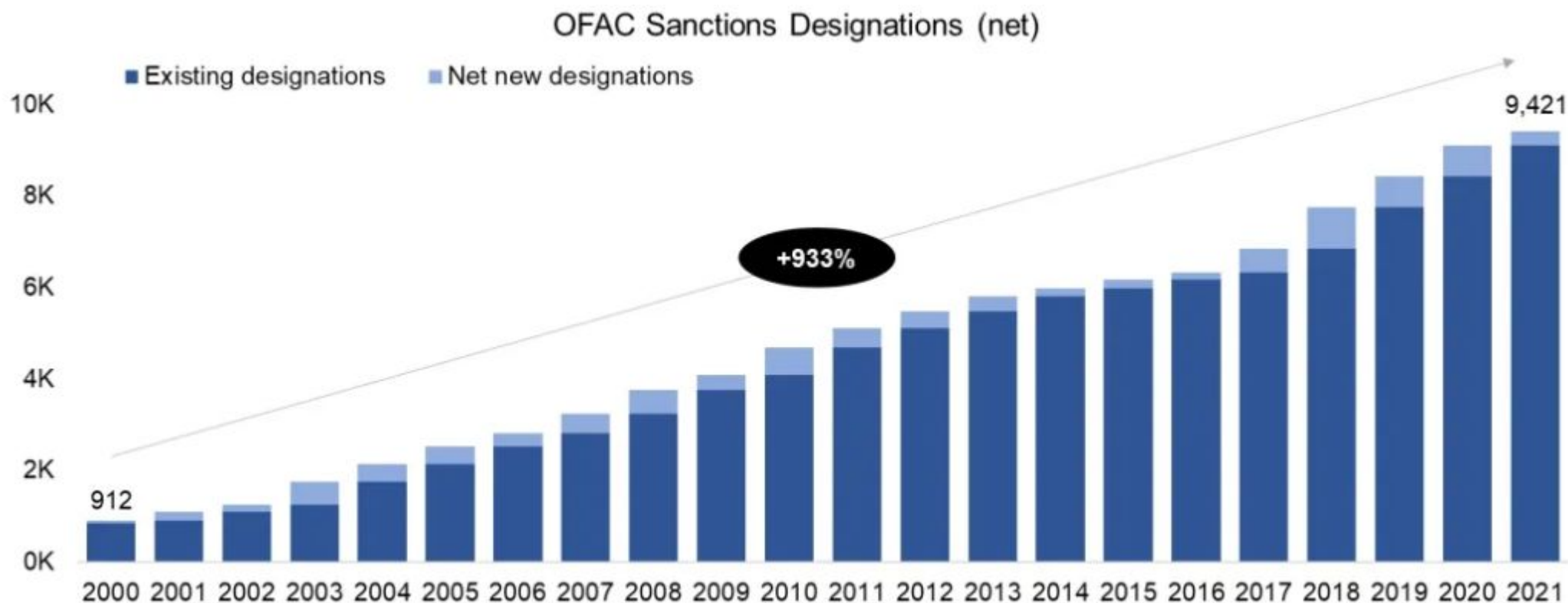
Past is prologue: markets have correctly discounted a regime of structurally higher neutral rates (inflation, growth, uncertainty, and/or risk premium)

OIS Swaps vs. Federal Reserve Longer Run Dot





The frequency and potency of deploying economic statecraft - in all its forms - has never been higher





Unprecedented use of economic statecraft: a reflection of **danger**, risk, and opportunity

US National Security Strategy, 2022

The most pressing strategic challenge facing our vision is from powers that layer authoritarian governance with a revisionist foreign policy. It is their behavior that poses a challenge to international peace and stability—especially waging or preparing for wars of aggression, actively undermining the democratic political processes of other countries, leveraging technology and supply chains for coercion and repression, and exporting an illiberal model of international order. Many non-democracies join the world's democracies in forswearing these behaviors. Unfortunately, Russia and the People's Republic of China (PRC) do not...

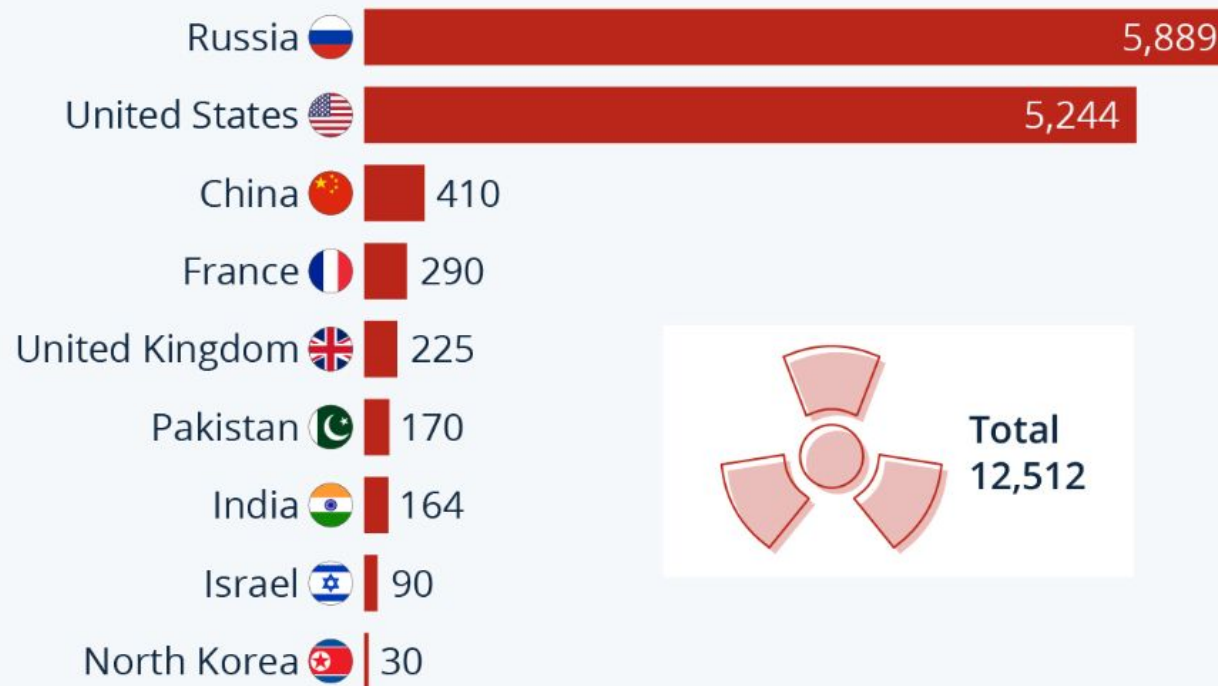
Russia poses an immediate threat to the free and open international system, recklessly flouting the basic laws of the international order today...The PRC, by contrast, is the only competitor with both the intent to reshape the international order and, increasingly, the economic, diplomatic, military, and technological power to advance that objective.



Unprecedented use of economic statecraft: a reflection of danger, **risk**, and opportunity

The Countries Holding The World's Nuclear Arsenal

Estimated global nuclear warhead inventories (Jan. 2023)*

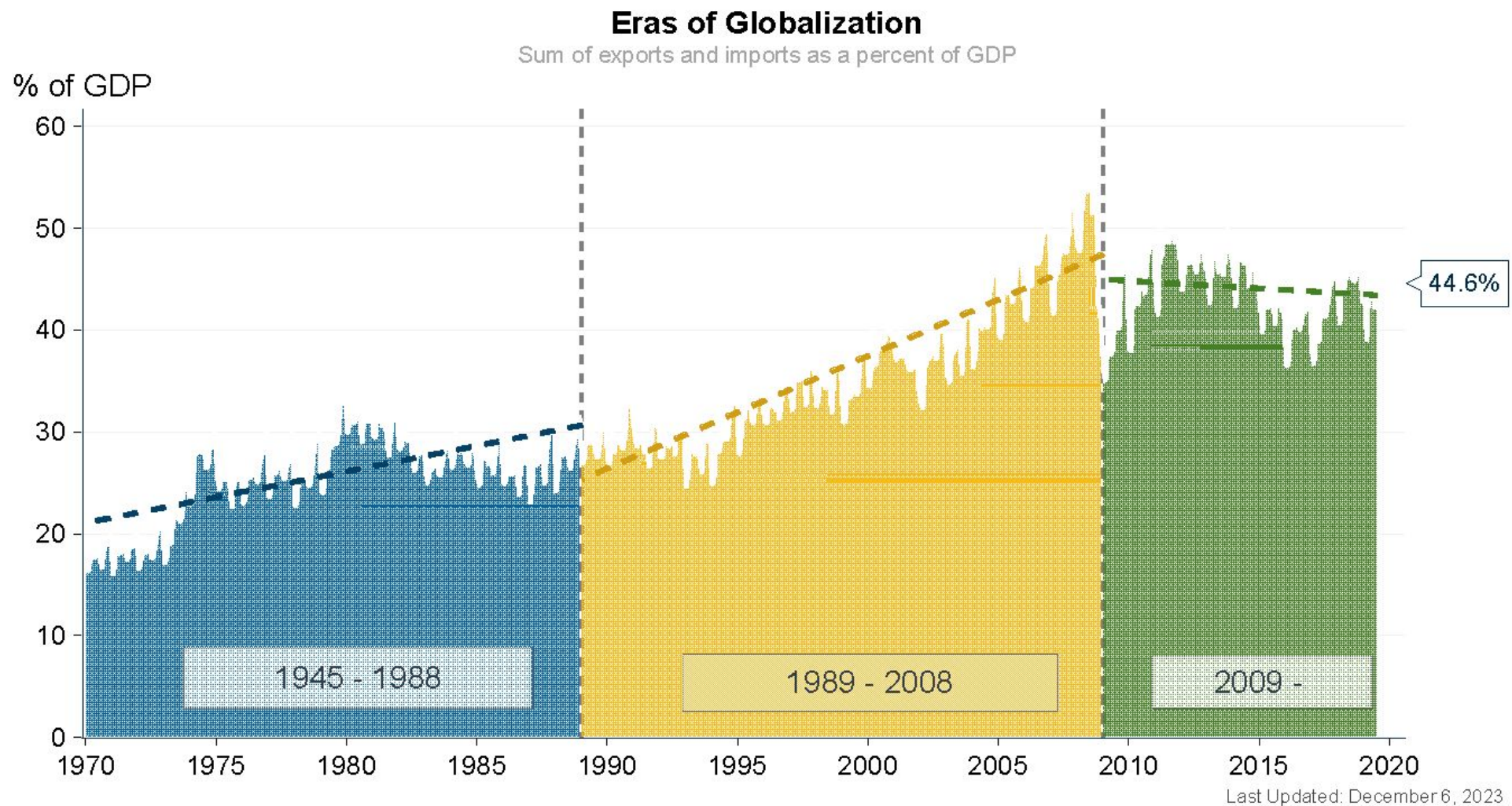


* Includes deployed, stockpiled and retired warheads awaiting disarmament

Source: SIPRI



Unprecedented use of economic statecraft: a reflection of danger, risk, and opportunity

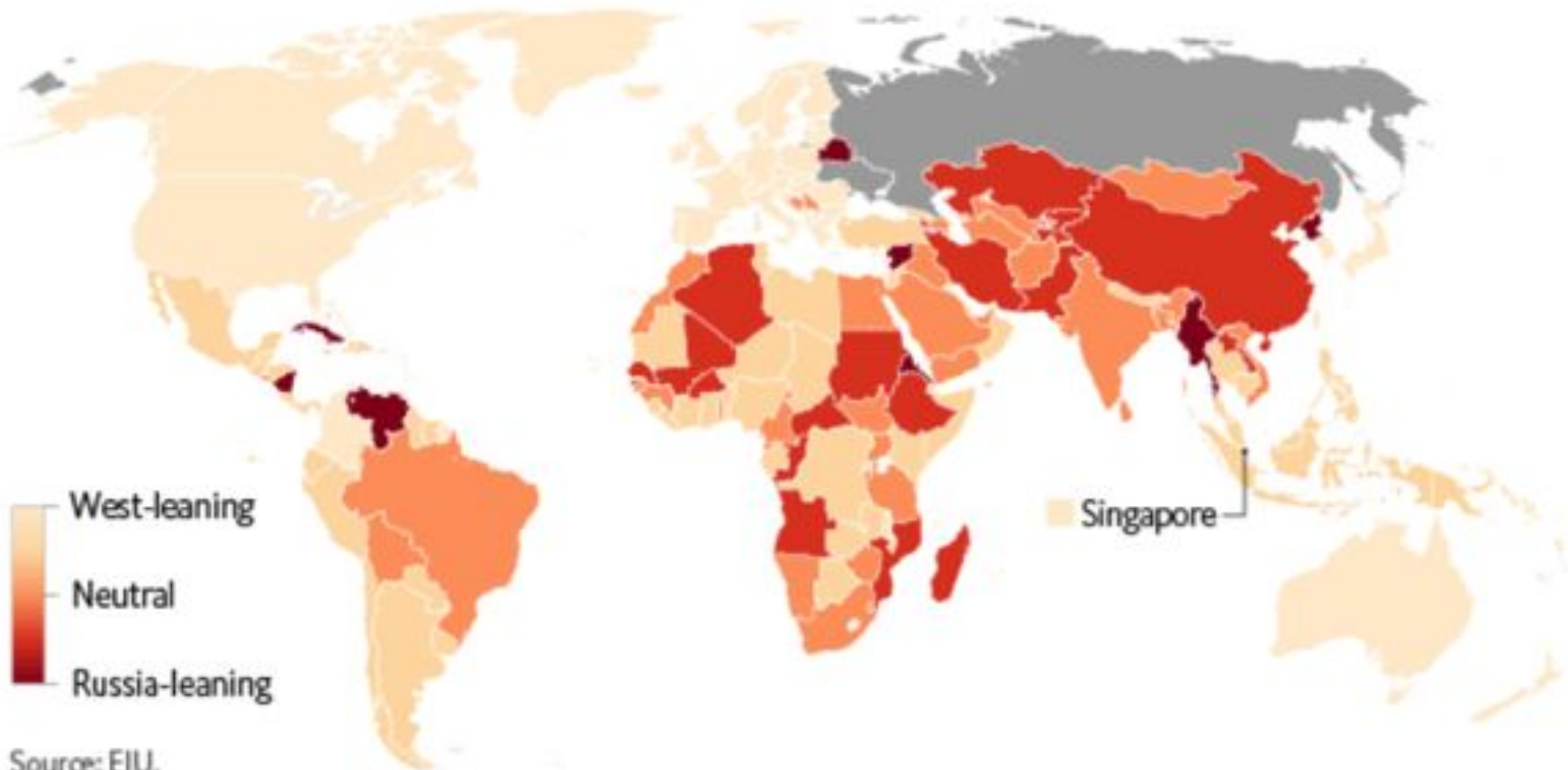


Source: PGIM Fixed Income, Macrobond



Net: economic statecraft will continue to fill the policy space between war and words. Is the ROW with us?

Two-thirds of the world's population live in countries that are neutral or Russia-leaning regarding the war in Ukraine





What to do?

1/ POTUS must articulate a doctrine of economic statecraft, starting with guiding principles:

- **Judicious:** Coercive tools used sparingly, and only in response to threats that might undermine global peace and stability
- **Responsible:** Avoid unintended spillovers to civilians, third countries, and the US/global economy
- **Coordinated:** Calibrated to maximize likelihood of coordination with like-minded partners
- **Flexible:** Retain optionality to ratchet costs higher or lower depending on impact and target's response
- **Sustainable:** Must be sustainable over the medium-term to ensure appreciable impact
- **Efficacy:** Geopolitical impact delivered must be judged as sufficient to justify economic costs and risks, relative to next best alternative
- **Humility:** Unintended consequences are inevitable; must be willing to change our mind, to course correct, and to admit when we're wrong



What to do?

2/ A doctrine of economic statecraft should also include rules of engagement that sets forth the outer bounds:

- **Why:** *A clearly defined geopolitical objective that statecraft is designed to serve*
- **When:** *The standards for deploying statecraft before, during, or after a trigger event*
- **What:** *The limits of what we'll do with statecraft, and what we won't contemplate. E.g., sanctions on food; seizing property w/o due process*
- **How:** *Circumstances in which we'd be willing to deploy sanctions unilaterally if we're unable or unwilling to build a coalition*
- **Against whom:** *Delineates how we think about deploying sanctions on private citizens and private companies, as opposed to technocrats, government officials, military personnel, and political leadership*



What to do?

3/ Finally, doctrine must include a ‘code of conduct’ for practitioners of economic statecraft

- ***Commitment to uphold standards of behavior*** set forth in guiding principles and rules of engagement
- ***Commitment of caution to “do no unnecessary harm”*** to civilians in the target population and third countries
- ***Commitment of humility*** to follow an evidence-based and unsentimental approach that challenges lazy narratives, imagines the full distribution of possibilities, and helps policymakers to see their blind spots!



What to do?

4/ Taking doctrine seriously requires an upgrade to the USG's analytical infrastructure. Start by mimicking the FRBNY

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New York Fed

Markets & Policy
Implementation

Economic
Research

Financial Institution
Supervision

Financial Services
& Infrastructure

Community Development
& Education

Markets & Policy Implementation

MARKETS & POLICY IMPLEMENTATION

DATA

Reference Rates

- Effective Federal Funds Rate
- Overnight Bank Funding Rate
- Secured Overnight Financing Rate
- SOFR Averages & Index
- Broad General Collateral Rate
- Tri-Party General Collateral Rate

Desk Operations

- Treasury Securities
- Agency Mortgage-Backed Securities
- Repos
- Reverse Repos
- Securities Lending
- Central Bank Liquidity Swaps

System Open Market Account Holdings

Primary Dealer Statistics

Historical Transaction Data

DOMESTIC MARKET OPERATIONS

Monetary Policy Implementation

- Treasury Securities
- Agency Mortgage-Backed Securities
- Agency Commercial Mortgage-Backed Securities
- Agency Debt Securities
- Repos & Reverse Repos
- Securities Lending

Discount Window

Treasury Debt Auctions & Buybacks as Fiscal Agent

INTERNATIONAL MARKET OPERATIONS

Foreign Exchange

Foreign Reserves Management

Central Bank Swap Arrangements

ACROSS MARKETS

Statements & Operating Policies

Market Intelligence

- Survey of Primary Dealers
- Survey of Market Participants

Annual Reports

Counterparties

- Primary Dealers
- Standing Repo Facility Counterparties
- Reverse Repo Counterparties
- Foreign Exchange Counterparties
- Foreign Reserves Management Counterparties

Operational Readiness

Central Bank & International Account Services

Programs Archive



What to do?

5/ At regular intervals – not just once ! - we should assess the historical efficacy and spillovers of these tools



THE TREASURY 2021 SANCTIONS REVIEW

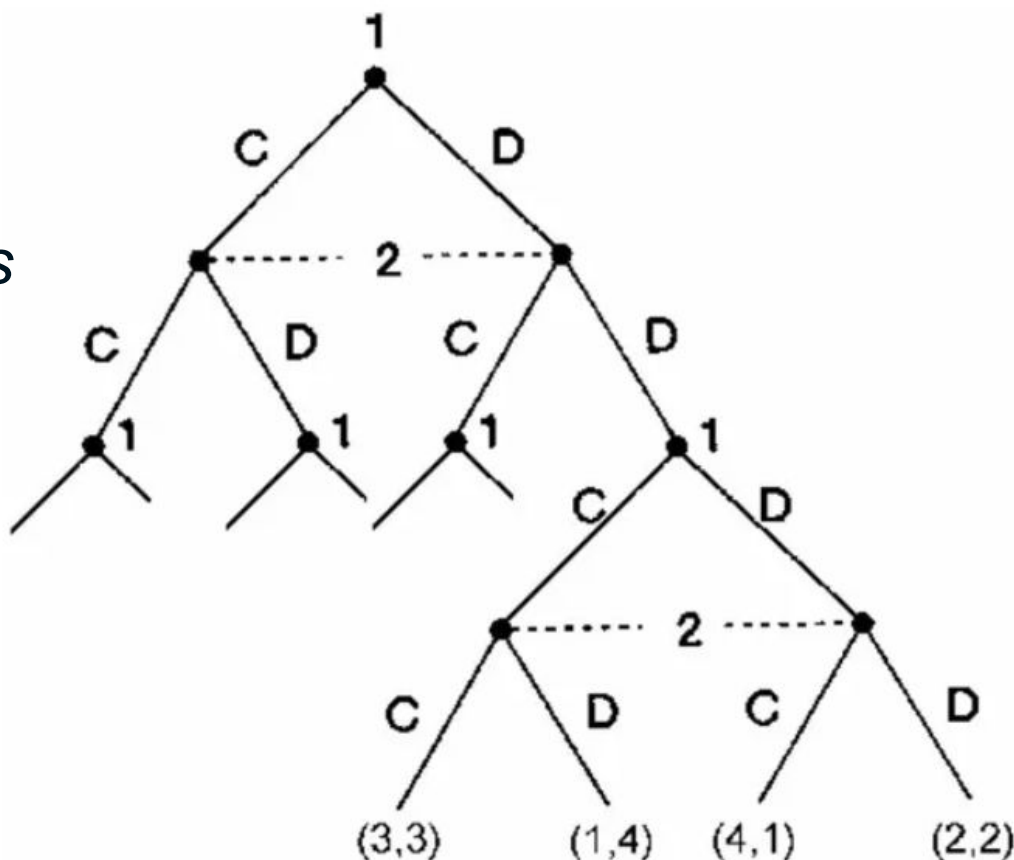


What to do?

6/ Even more importantly, we must imagine multistage, multiplayer conflicts that play out globally in a repeated game

- *“Stress tests” and wargames: reveal where collective strengths intersect with target’s vulnerabilities + vice versa.*

- *Must evolve into a continuous process that identifies where we need to strengthen or invent new tools, new defenses, and new forms of coordination to prevail*





What to do?

7/ “Necessity is the mother of invention”: We must anticipate how and where evasion is likely to occur and build readiness to respond in real-time, whether by:

- *Tightening the screws on enforcement*
- *Making an example out of evaders via outsized penalties*



Foreign Policy

<https://foreignpolicy.com> › 2023/10/26 › russia-oil-price... ⋮

How Russia Evaded the Oil Price Cap

Oct 26, 2023 — The third proposal is the most powerful: It entails **imposing sanctions on Russian oil firms and international businesses helping Russia** to dodge ...



The Economist

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Russia's sanctions-dodging is getting ever more sophisticated

How banks are greasing the wheels of the growing grey trade | Finance & economics. Expand your perspective on 2024 with our best price subscription—50% off annual digital.



What to do?

8/ Executing an ambitious buildout of analytical infrastructure requires a step change in personnel...a multidisciplinary SWAT team....not two economists

Economics

US Treasury Hires Economists to Study Consequences of Sanctions

- Unit will conduct analysis before sanctions are imposed
- Critics say penalties are imposed too much and hard to remove



By [Daniel Flatley](#)
May 17, 2023 at 9:45 PM EDT

Listen 1:40



The US Treasury Department hired two economists to study the effects and unintended consequences of sanctions, the financial tools that have come to play a central role in US foreign policy.

The Sanctions Economic Analysis Unit will research the collateral damage of sanctions before they're imposed, and after they've been put in place to see if they should be adjusted. Treasury announced last September it was creating the new positions.



What to do?

9/ The team will need sufficient scale, scope, and absorption capacity to execute at pace even amid multiple crises at once

To do so, it must build connective tissue with allies and partners – both existing and potential ones – as well as stakeholders in the private sector and regulatory community



INTERNATIONAL MONETARY FUND





What to do?

10/ Ultimately, though, boosting the credibility of economic statecraft requires more than just doctrine and analysis.

We must strike a deliberate balance in the practice of statecraft that conveys a standing preference for positive inducements that attract and induce geopolitical swing states via the prospect of mutual gain.... rather than punitive devices that coerce behavior by inflicting economic pain



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discoursemagazine.com

<https://www.discoursemagazine.com/a-u-s-sovereign-w...>

A U.S. Sovereign Wealth Fund? - Discourse Magazine

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the private sector's undersaving problem



Axios

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Daleep Singh is the Chief Global Economist and Head of Global Macroeconomic Research at PGIM Fixed Income. Mr. Singh is responsible for oversight of the Firm's Global Macroeconomic Research team, leading the formulation of the global macroeconomic outlook across developed and emerging economies, analyzing key structural shifts, and synthesizing the implications for global interest rate, currency, sovereign, and credit markets. He is a member of the senior investment team and provides thought leadership on global policy and macroeconomic trends. Prior to joining the Firm in 2022, Mr. Singh served as Deputy National Security Advisor for international economics and Deputy Director of the National Economic Council for the Biden Administration. In this capacity, he coordinated the Administration's policymaking process for a range of issues at the intersection of economic policy and national security, including economic statecraft, supply chain resilience, innovation policy, infrastructure finance, digital assets, global health security, and climate finance. As the U.S. Sherpa to the G7 and G20, he also acted as President Biden's representative in major international fora. Previously, Mr. Singh was an Executive Vice President and Head of the Markets Group at the New York Federal Reserve, where he led the implementation for most of the Fed's emergency facilities launched during the COVID-19 pandemic. Earlier in his career, Singh served as an acting assistant secretary for financial markets at the Treasury Department during the Obama-Biden Administration, as well as a deputy assistant secretary for international affairs. Before and after his time in government roles, Mr. Singh held positions in the private sector and academia, including when he taught a popular graduate course on geoeconomic strategy. Mr. Singh earned a BA from Duke University and graduate degrees from MIT and Harvard University, with a focus on international economics. Additionally, Mr. Singh was named one of the 2022 Bloomberg 50, an annual list of innovators, entrepreneurs, and leaders who have changed the global business landscape.



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