

Forecasting the Future: A Modern Economics Challenge

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THE FORECASTING FUTURE

A Modern Economics Challenge

CHALLENGE DETAILS

The Bridgewater and Global Citizen “Forecasting the Future” Challenge invites you into this complex world, focusing on a key issue for today’s leaders: the rise of Modern Mercantilism, where governments actively shape economies to boost national authority, cut trade deficits, and drive industrial growth.

Part 1: Your Forecasts.

- Goal: Create a minimum of 20 binary forecasts (yes/no outcomes) with assigned probabilities.
- Length: Each forecast must be one sentence and have clear, objective resolution criteria. No page limit.
- Timeframes: Cover short and long-term timeframes (1 to 10 years).
- Focus: Focus on well-calibrated predictions—your probabilities should match outcomes over time. All forecasts must clearly relate to Modern Mercantilism.

Part 2: Your Framework and Holistic Synthesis

- Goal: Present your big-picture view of how Modern Mercantilism will shape the next decade.
- Framework: Build a coherent framework that ties together your forecasts into a broader understanding.
- Explain: Explain the key cause-and-effect dynamics you believe will drive global events.
- Reference Forecasts: Reference a few of your most impactful forecasts from Part 1 to illustrate your thinking.
- Focus: Focus on clarity and structure—this is about synthesis, not justifying each individual forecast.
- Visual Support: You may include charts or data to support your framework.

Part 3: Analytical Appendix—Back up your predictions with clear reasoning, relevant evidence, and thoughtful analysis.

- How to Use This Section is Up to You: Use this space your way—whether it's to explain the reasoning behind your forecasts, share models that support your views, or dive deeper into the most important parts of your analysis.

Part 1: The Modern Mercantilism Predictions

Education & Human Capital

1. “There is a 75% chance that by 2030, more than 50% of new US white-collar job postings on LinkedIn will no longer require a formal college degree.”
2. “There is a 85% chance that by 2030, the US’s global share of globally mobile (international) higher education students enrollment will fall below 10%, down from ~13.4% in 2023.”
3. There is a 60% chance that by 2030, alternative credential providers (e.g., Coursera, Google, edX) will issue more than 1M job-relevant certifications annually in the US, comprising at least 20% of total new workforce-entry credentials.
4. “There is a 50% chance that by 2030, at least 15% of US private colleges operating in 2024 will have closed or merged.”
5. “There is a 70% chance that the wage premium for US college degree holders over high school graduates will decline by at least 10 percentage points by 2032 compared to 2024.”

AI, Tech and the New Sovereignty Game

6. “There is a 65% chance that by 2030, at least 3 G20 countries will mandate that all AI models deployed in critical industries (defense, finance, infrastructure) must be trained exclusively on domestic data.”
7. “There is a 90% chance that by 2028, the combined public spending on AI R&D in the US, China, and the EU will exceed \$300 billion cumulatively.”
8. “There is a 70% chance that by 2029, at least one major global labor organization (e.g., AFL-CIO, IG Metall) will publish formal demands for AI algorithmic transparency and worker data rights as part of labor negotiations.”

Energy & Strategic Autonomy

9. “There is a 80% chance that by 2035, annual US electricity generation from renewables (wind, solar, hydro) will surpass fossil fuel generation.”
10. “There is a 60% chance that by 2028, the U.S. will sign at least three new bilateral strategic resource agreements with developing nations focused on securing access to rare earths and battery-critical minerals.”
11. There is a 75% chance that by 2029, at least one major US utility will impose AI-driven demand response limits: effectively rationing electricity.

The Budgetary Limits of Empire (Fiscal Policy)

12. “There is a 85% chance that by 2027, the US will implement a sovereign wealth fund-like mechanism or a special fiscal instrument such as long-duration public savings bonds or export-backed securities aimed at stabilizing debt service costs - a policy not seen since WWII war bonds.”

13. “There is a 90% chance that by 2029, US federal spending on industrial policy (e.g., CHIPS Act, clean energy subsidies) will be outpaced by interest payments on national debt by a factor of 2:1.”
14. “There is a 60% chance that by 2034, the US share of global GDP will fall below 20%, while its share of global military spending remains above 35% : a divergence last seen in the late Cold War era.”
15. “There is a 65% chance that by 2032, US CPI inflation will average above 3.5% annually, driven primarily by debt-financed industrial policy and deglobalization-induced supply chain costs.”

Monetary Power in a Multipolar World

16. “There is a 65% chance that by 2029, more than 40% of global oil trade volume will be settled in non-USD currencies, up from ~25% in 2023.”
17. “There is a 85% chance that by 2030, China will surpass Germany to become the world’s second-largest holder of gold reserves.”
18. “There is a 70% chance that by 2032, a BRICS+ nation-led digital currency will be formally backed by a basket of commodities (e.g., gold, oil, rare earths).”
19. There is an 80% chance that by 2030, USD-backed stablecoins issued under U.S. regulatory frameworks, will account for over 25% of all global cross-border digital payments, effectively cementing the U.S. dollar’s dominance in the post-Bretton Woods digital era.

India and the Strategic Ascent of the Global South

20. “There is a 90% chance that by 2029, India will become the world’s third-largest consumer market by total consumption expenditure, surpassing Germany and Japan.”
21. “There is a 80% chance that by 2027, India will be recognized (via formal alliances, G20 leadership outcomes, or UN voting blocs) as the primary geopolitical representative of the Global South.”

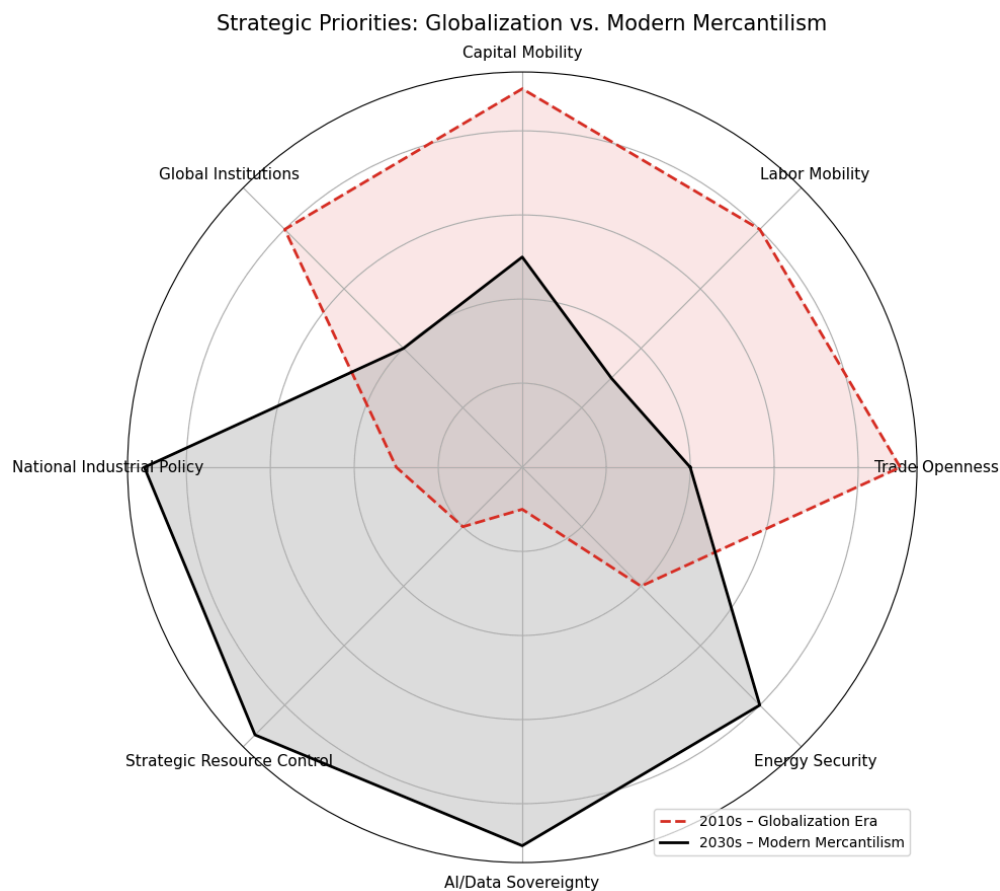
Part 2: Framework Explanation – Building a Forecasting System

Big Picture View: The Rise of Competitive Sovereignty

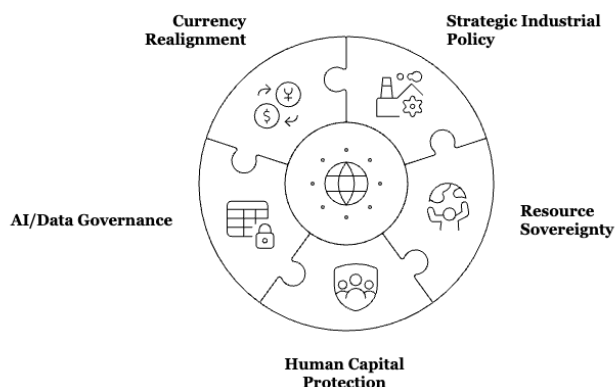
Modern mercantilism is the new global operating system: a shift from free-market openness to state-engineered advantage, where nations weaponize debt, data, and demographics to secure future power. In this world, states operate like firms, securing the building blocks of power: energy, data, labor, capital, and trust. The global economy is fragmenting into strategic zones, and beneath the surface of fiscal policies, AI regulations, and education reforms lies one central idea: protect your edge, or lose your future.

Over the next decade, we will not see the continuation of globalization as we know it. Instead, we will enter an era of **competitive sovereignty**: a geopolitical battleground where nations act ruthlessly to preserve autonomy in production, talent, technology, and resources. From the U.S. re-industrializing with debt-financed policies, to India asserting itself as the voice of the Global South, every major policy trend signals a shift from open systems to fortified ecosystems.

This thesis anchors my forecasts. Each prediction, whether in energy, education, digital currency, or AI, is a reflection of how modern mercantilism will reshape national priorities. This isn't a story of inevitable cooperation; it's one of selective decoupling, sovereign toolkits, and pragmatic protectionism. The race ahead isn't just economic...it's existential.



Pillars of Modern Mercantilism

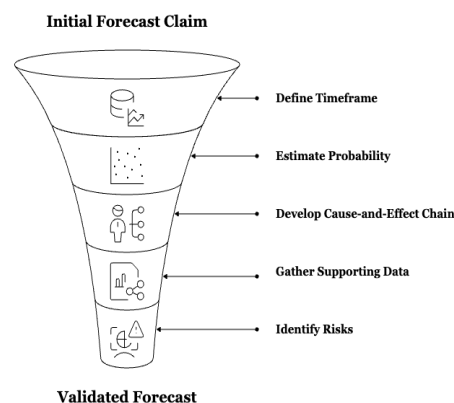


At the outset of this project, I focused on identifying a set of themes that I believe are central to understanding the future trajectory of economic, technological, and geopolitical power. These included:

- Human capital and the changing value of education
- Fiscal pressure and sovereign debt sustainability
- The shifting foundation of reserve currency status and de-dollarization
- Energy independence and resource nationalism
- The role of artificial intelligence in national strategy and labor markets
- India's emergence as a major consumer and geopolitical force

These topics form the frontlines of modern mercantilism. They are not isolated, they are strategically entangled arenas where states assert control over growth, security, and influence. Rather than viewing markets as self-correcting and globally integrated by default, modern mercantilism assumes states will increasingly shape economic activity through industrial policy, strategic protectionism, and the control of technological and natural resources. This orientation guided how I constructed each forecast, emphasizing policy choices, national incentives, and global asymmetries rather than treating outcomes as purely market-driven.

Forecasting Process Funnel



To structure my predictions consistently and with clarity, I developed a modular forecasting template that each prediction adheres to. This framework includes:

- **Forecast Statement:** A clear, testable claim about a major structural shift, expressed probabilistically and anchored in data.
- **Timeframe:** A defined resolution window appropriate for the trend or structural change in question.
- **Probability Estimate:** An explicit numerical probability, chosen based on historical precedent, trend velocity, and uncertainty bounds.
- **Cause-and-Effect Chain:** A detailed sequence of factors that explain how the predicted outcome might materialize, including upstream drivers and downstream results.
- **Supporting Data Sources:** Credible empirical sources that either currently support the forecast or will enable its future validation (e.g., EIA, OECD, IMF, World Bank, LinkedIn, etc.).
- **Risks and Alternative Paths:** A set of plausible counterforces or reversals that could invalidate the prediction, promoting analytical humility.

This structure allowed me to treat each forecast not just as a hypothesis, but as part of a broader system of

interconnected drivers, much like a policy planner or strategist would. By breaking each prediction into these components, I could ensure internal coherence, testability, and a clear logic of emergence.

Applying the Framework to Modern Mercantilism

Every prediction developed within this framework links back to a core idea: the return of economic nationalism through modern mercantilist logic. Whether it's the reconfiguration of labor markets via alternative credentials, the crowding out of industrial investment by debt servicing, or strategic resource deals to secure energy independence: these are not random developments. They reflect deliberate efforts by nations to assert control over production, consumption, and innovation within their borders and spheres of influence.

For example, predictions on education and credentialing are not merely observations about technology and labor trends, they reflect how countries may try to re-skill their populations in response to automation and maintain productive advantage. Fiscal predictions point to a world where growing debt constraints limit traditional stimulus, forcing governments into more interventionist industrial strategies. AI and data sovereignty forecasts highlight how national security and economic policy are becoming intertwined. And India's rising role as a representative of the Global South reflects how multipolarity and demographic power are reshaping global institutions. I will tie each topic through the lens of modern mercantilism in the next section

Ensuring Forecast Quality and Practical Relevance

The intent behind each forecast is not to chase headlines or overfit to short-term data. Instead, the goal is to identify *structural shifts*, developments that change the underlying rules of the game. I ensured every prediction:

- Was grounded in available data and logical reasoning
- Had a clear resolution pathway through public metrics

- Represented a meaningful change, not just a continuation of trend
- Tied back to a broader theory of state behavior under global constraint

This method gave me confidence that the forecasts are not only credible but strategically useful, whether for investors, policymakers, or institutions navigating global uncertainty.

The framework I built reflects a strategic approach to forecasting that integrates probabilistic thinking, system-level reasoning, and policy-oriented analysis. By selecting themes that align with the principles of modern mercantilism and applying a disciplined structure across all predictions, I was able to construct a set of forward-looking hypotheses that are not only testable, but also meaningful in the context of long-term global change.

As part of this submission, I am attaching a comprehensive table that includes all of my predictions alongside the full framework I developed. Each row in the table corresponds to a forecast and is populated with key analytical elements: probability, timeframe, cause-and-effect logic, resolution criteria, supporting data sources, potential risks, and implications. This structured forecast matrix is not just a record of predictions, it is a strategic tool. It enables decision-makers to scan for early signals, evaluate second-order effects, and simulate policy impacts in a fragmented world.

This era marks the end of globalization by default. The world is no longer cooperating to grow together but it's competing to survive apart.

No	Prediction	Core Theme	Cause-Effect Chain	Risks / Uncertainties	Resolution Criteria
1	>50% of new US white-collar job postings won't require college degrees	Education & Labor	Rising education costs + skills-first hiring by tech firms → alternative credentials gain legitimacy → employers drop degree requirements	Reversal in skills-first trends; employer litigation/regulation on hiring standards	LinkedIn or BLS data showing degree requirement share drops below 75% for new white-collar postings
2	US share of globally mobile higher ed students falls below 10%	Education & Global Talent	Visa constraints + rising US tuition + rise of UK/Canada/Asia as student destinations → fewer choose US → loss of soft power	Change in visa policy or global instability driving students back to US	IIE Open Doors or UNESCO data showing US share <10%
3	Alt credential providers issue >1M job-relevant certifications/year	Education & Training	Tech hiring needs + employer buy-in + low cost of alt credentials → large-scale adoption	Government crackdowns or loss of credibility in alt credentials	Coursera/edX/Google Certs annual issue data crossing 1M + US DoE data showing >20% of workforce-entry credentials
4	≥15% of US private colleges close or merge	Higher Ed & Institutional Survival	Enrollment cliffs + high tuition + student debt pushback → unsustainable finances → closures or M&A	Federal bailout programs or new revenue models	Department of Education + accreditation status showing ≥15% closure/merger rate from 2024 baseline
5	Wage premium for college degrees drops ≥10 pp	Labor Market ROI	Non-degree skill paths + AI productivity tools + reduced ROI → degree value premium narrows	Tight labor markets may preserve college wage gaps	BLS data shows decline in wage differential between BA and HS grads from 2024 baseline
6	≥3 G20 nations require AI models in critical infra trained on domestic data	Data Sovereignty	AI in defense/infra raises national security concerns → AI stack protection	Compliance enforcement difficulties; MNC lobbying	Legal or regulatory mandates for training on domestic-only data for AI models in critical sectors
7	AI R&D public spend in US/EU/China >\$300B cumulative	Industrial AI Race	State-led tech arms race → national AI funding surge → cumulative investment buildup	Recession or budget reallocations	National budget documents or OECD reports showing cumulative public spend crossing threshold
8	Major labor union demands AI transparency rights	AI + Labor	Labor fears around job automation + opaque AI systems → unions demand model audits in negotiations	Weak union leverage in gig/tech sectors	Union documents (AFL-CIO etc.) publicly citing algorithmic transparency as negotiation demand
9	Renewables surpass fossil in US electricity generation	Energy Transition	Utility decarbonization + IRA + tech cost curve → renewables dominance	Grid reliability issues or storage bottlenecks	EIA annual energy report showing renewables > fossil in net MWh generation
10	US signs ≥3 new rare earth/battery mineral agreements	Resource Mercantilism	China supply risk + EV/AI demand + friend-shoring push → LatAm/Africa deals	Geopolitical instability in partner regions	US trade announcements or State/Commerce data on signed bilateral mineral MoUs
11	AI-driven	AI-Energy	AI strain (data centers, EVs) +	Public backlash	Utility filings + state bills

	demand response leads to state clean energy protectionism	Feedback	grid stress → utility rationing → local policy retaliation to secure clean energy	over rationing; misfiring AI predictions	subsidizing domestic generation in response
12	US creates sovereign wealth-style mechanism to stabilize debt service	Fiscal Innovation	Soaring interest burden + precedent from war bonds + IMF signaling → innovative financial instruments	Political gridlock or short-term focus may block policy	Publicly announced federal debt instrument with long-duration or asset-backed structure
13	Interest payments >2x industrial policy spending	Fiscal Prioritization	\$1T+ annual interest + CHIPS & IRA scale limits → debt service overtakes strategic investment	Revenue windfall or defense cuts freeing up funds	CBO budget data: actual interest spending >2x major industrial policy allocations
14	US GDP share <20%, but >35% of military spend	Global Power Imbalance	Economic stagnation + sustained defense budgets + global South growth → divergence in GDP vs military	Unexpected US growth or major defense cuts	IMF/World Bank + SIPRI or DoD data confirming <20% GDP share, >35% military spend share
15	Avg. US CPI inflation >3.5% from 2025–2032	Inflation + Industrial Strategy	Debt-financed industrial policy + reshoring + constrained supply chains → structural inflation	Energy breakthroughs or productivity surges	BLS 7-year CPI average >3.5% across time period
16	>40% of global oil trade in non-USD currencies	Dedollarization	China/Russia oil trade + SWIFT alternatives + dollar weaponization → countries opt out	Renewed dollar diplomacy or oil price volatility may delay	OPEC and BIS data showing >40% oil traded in non-USD units
17	China surpasses Germany in gold reserves	Dedollarization & Reserve Shift	China's diversification away from USD + trade surpluses + BRICS aspirations → gold buildup	Unreported gold holdings; audit opacity	IMF/World Gold Council data on official reserves
18	BRICS+ commodity-backed digital currency launches	Currency Competition	Search for USD alternative + commodity security + tech rails → BRICS-led stablecoin	Governance friction or lack of adoption in trade	BRICS declaration + central bank documentation showing launch of asset-backed digital currency
19	USD-backed stablecoins will be 25% of all global cross-border digital payments	De-dollarization and Digital Currency Strategy	U.S. regulatory clarity + institutional trust in USD + demand for efficient cross-border payments → rapid adoption of U.S.-issued stablecoins (e.g., USDC, PayPal USD) → U.S. dollar remains dominant settlement unit globally despite de-dollarization pressures.	Regulatory fragmentation across countries; rise of CBDCs or BRICS-aligned digital currencies; tech platform bans in key regions.	Confirmed if >25% of global cross-border digital payments volume (as tracked by BIS, IMF, or major payment networks) is conducted using USD-backed stablecoins regulated in the U.S.
20	India becomes 3rd-largest consumer market	India Consumption Boom	Middle class expansion + digital payments + urbanization → global consumption rank up	Rural inequality or external shocks	World Bank/OECD data on household consumption by country
21	India recognized as Global South voice via major bloc actions	Geopolitical Rebalancing	G20 presidency + non-aligned diplomatic posture → India central in South coalition	Fragmentation among emerging markets	Formal declarations or bloc votes confirming India-led agenda or representation

Part 3: Analytical Appendix

Education & Human Capital

Education is no longer just a social good: it is strategic infrastructure.

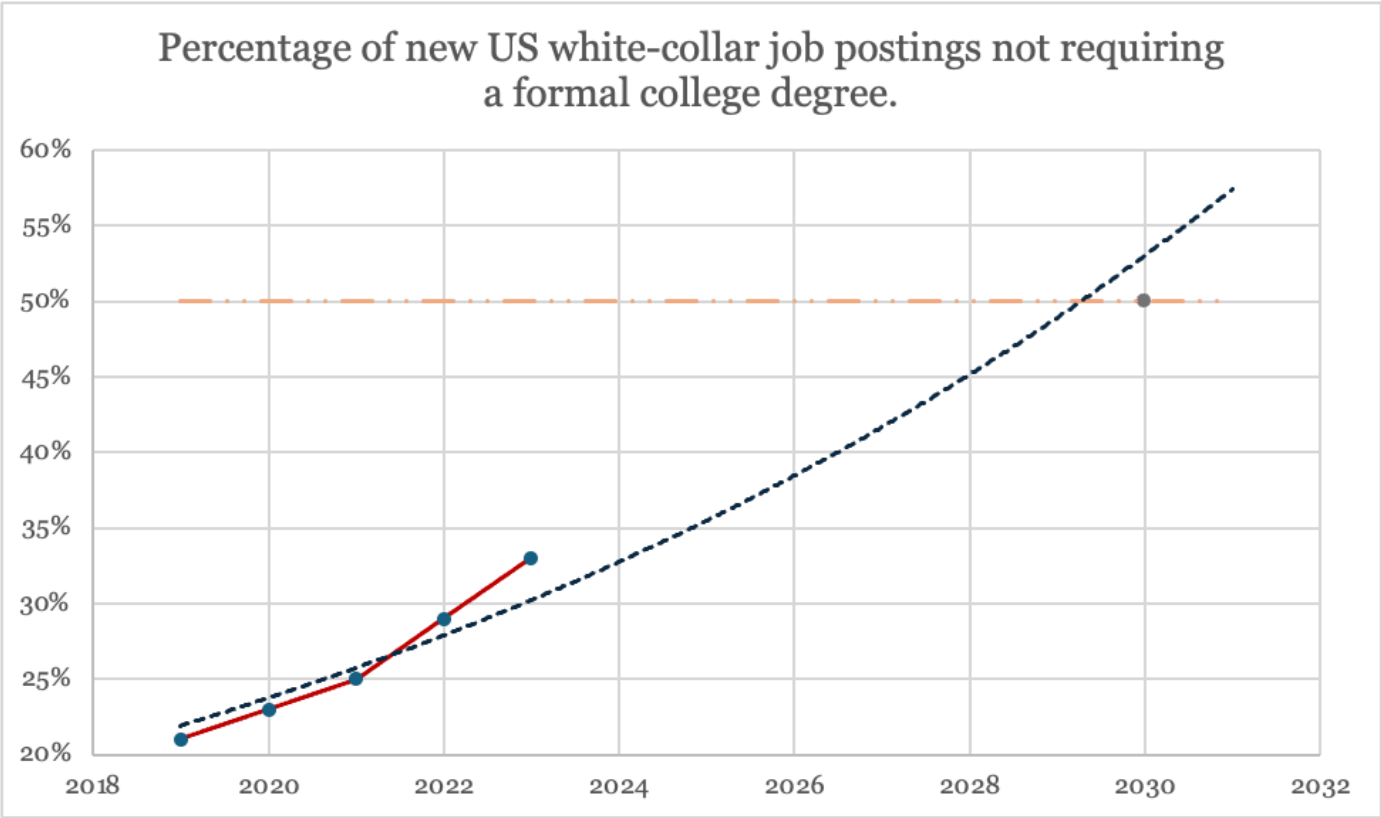
In the age of modern mercantilism, where states behave like firms and economic power is inseparable from geopolitical influence, education systems have become the foundation of national competitiveness. Unlike classical mercantilism’s emphasis on reserves and trade surpluses, modern mercantilist logic prioritizes intellectual capital, talent flows, and skill pipelines as the currency of power.

This section explores a core thesis:

The slow decline of the US higher education system (measured through its global appeal, affordability, signaling power, and institutional resilience) represents one of the most overlooked national vulnerabilities of the next decade.

Education underpins nearly every strategic domain: AI, defense technology, advanced manufacturing, and biomedical innovation all require an abundant, adaptive, and highly skilled workforce. As such, a weakening university system has cascading effects on America’s ability to lead in R&D, attract top global talent, and maintain labor market resilience.

Other nations, particularly those with explicit modern mercantilist strategies like China, UAE, and even Canada, are investing aggressively in their educational ecosystems, both to skill up their own populations and to absorb the global brain drain the U.S. can no longer monopolize. This isn’t just about declining enrollment or tuition debates. It’s about the structural erosion of a core pillar of American power. Together, my following forecasts illuminate how this erosion may unfold, what’s driving it, and what it signals about the U.S. position in the global talent race in my perspective.



By 2030, there is a 75% probability that more than a half of new US white-collar job postings on LinkedIn will not require a formal college degree. This forecast reflects major transformations underway in the American labor market, as employers increasingly shift toward skills-first hiring practices and embrace alternative credentials over traditional four-year degrees. Leading organizations such as Google, IBM, Accenture, and Walmart have paved the way by actively dropping degree requirements and prioritizing skills-based assessments, microcredentials, and relevant work samples. The rise of bootcamps, online courses, and employer-sponsored certificate programs (e.g., Coursera, Google Career Certificates) further strengthens these alternative talent pipelines, while rising tuition costs and stagnant wage premiums erode the return on investment for bachelor's degrees, leading both job seekers and employers to rethink established hiring norms.

Labor market data from sources like LinkedIn and the Burning Glass Institute confirms a steady and accelerating decline in the share of white-collar job postings that list a bachelor's degree as mandatory. For example, LinkedIn reported an increase from 21% of postings not requiring a degree in 2019 to nearly 30% by 2022, with similar upward trends in key digital, administrative, and customer service roles. This transition is driven by factors such as persistent talent shortages, wage inflation, and widespread adoption of remote work, which encourage employers to widen the talent pool and emphasize practical skills over academic credentials. Additionally, declining college enrollment and expanded policy support for non-traditional education pathways, such as Pell Grant access for short-term credentials, reinforce the movement toward skills-first hiring.

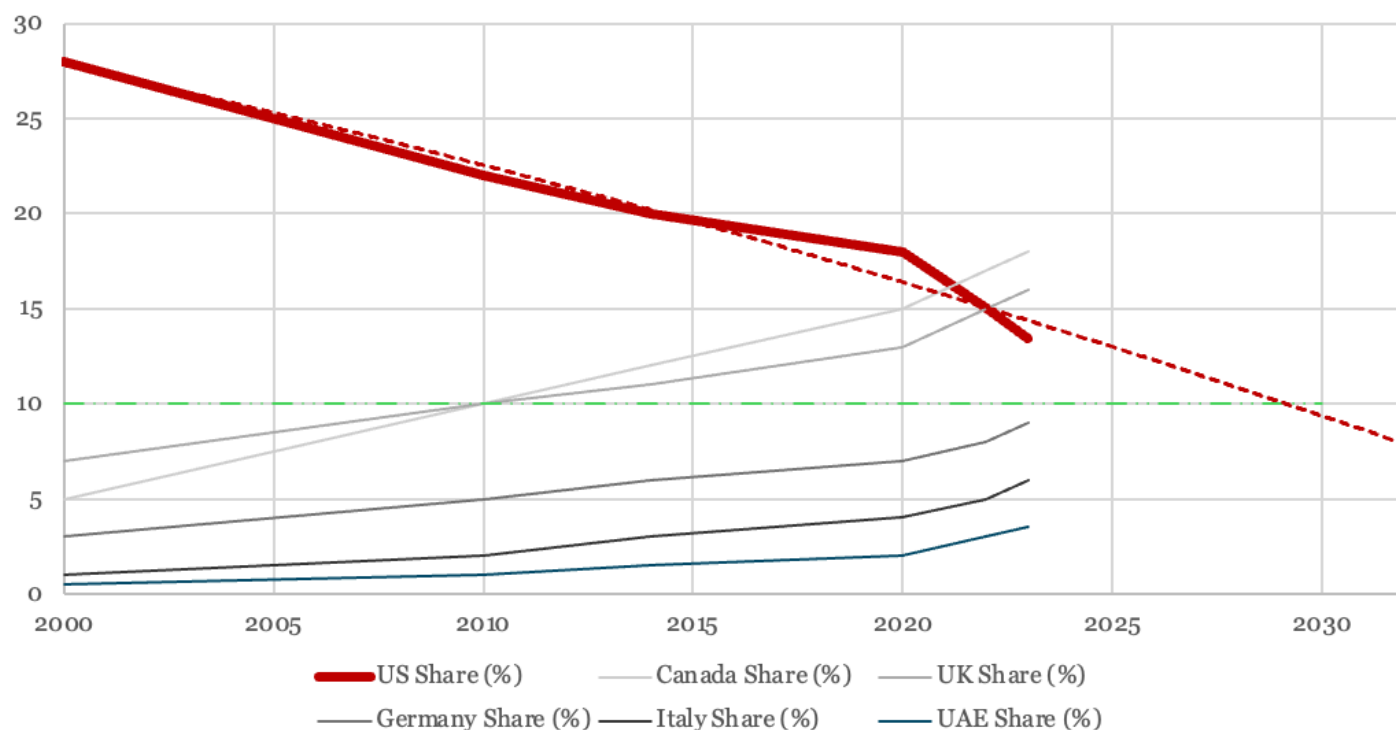
The implications of this shift are profound. Credentialing platforms offering certifications, microdegrees, and

digital badges are set to expand rapidly, often in partnership with employers. Private colleges, particularly smaller institutions, face existential pressures as enrollments decline, leading to potential closures or mergers. On the workforce side, expanded non-degree pathways create new avenues for social and economic mobility, enabling more diverse and historically underrepresented groups to enter professional fields. However, the quality and consistency of alternative credentials remain a concern, prompting employers to seek new assessment and verification frameworks.

Looking ahead, this trend aligns with broader macroeconomic and geopolitical themes: the need for large-scale reskilling in the face of global competition, pursuit of greater economic inclusion and productivity, and the growing role of AI in automating job screening and talent matching, further diminishing the centrality of the traditional college degree. Although risks such as economic downturns, policy reversals, or concerns about credential quality could slow the trend, there is strong evidence and momentum behind the forecast. Barring major disruptions, surpassing the 50% non-degree job posting threshold appears not only likely, but potentially inevitable well before 2030.

Sources supporting this outlook include the LinkedIn Economic Graph, Indeed Hiring Lab, Burning Glass Institute, the Bureau of Labor Statistics, Brookings, Strada, the World Economic Forum, and policy communications from major employers such as Google, IBM, and Walmart.

Globally Mobile International Students %



By 2030, there is an 85% probability that the United States' share of globally mobile (international) higher education students will decline to below 10%, down from approximately 13.4% in 2023. This anticipated decrease signals a significant erosion of the US's historical dominance in global higher education and has important implications for American universities, national talent pipelines, and the country's soft power. A drop from 13.4% to under 10% indicates a continued shift toward a more multipolar academic landscape, driven by the increasing global mobility of students and the rise of alternative education hubs.

Historically, the US share of international students has steadily declined over the past two decades, falling from roughly 28% in 2000 to about 20% by 2013–14, then down to around 15% by 2022, reflecting much faster growth in global student mobility worldwide. Key inflection points include the post-9/11 visa tightening that restricted access and caused enrollment dips, policy changes between 2016 and 2020 that imposed stricter

visa and employment restrictions, and the COVID-19 pandemic, which disrupted mobility and accelerated online education adoption. These events combined to stall and then reduce the US's share, even as absolute enrollment numbers remain high.

Several factors drive this decline. Countries like Canada, the UK, Australia, Germany, the UAE, and China have aggressively expanded their recruitment efforts and liberalized visa and post-study work policies, making them increasingly attractive to international students. In contrast, the US continues to face visa processing delays, politicized immigration environments, and comparatively high tuition costs, which discourage prospective students. Additionally, the growth of high-quality institutions in the Global South offering English-language programs and transnational education options has enabled more students to study closer to home. Unlike competitors, the US's more restrictive post-study work environment further reduces its relative appeal.

This shift carries significant secondary effects. Universities, especially private and STEM-focused institutions, which rely heavily on international tuition revenue, face financial challenges. The changing student flows suggest a reversal of the traditional “brain drain,” as more talent remains in or near their home regions, fostering local innovation ecosystems. Furthermore, the rise of transnational education, hybrid campuses, and digital learning platforms diminishes the physical role of the US as a destination. Strategically, the US risks losing vital soft power influence, as fewer international leaders and innovators study within its borders.

This trend aligns with broader global dynamics characterized by “Modern Mercantilism,” where nations increasingly prioritize developing and retaining domestic human capital to enhance economic and geopolitical strength. The expanding academic infrastructure and demographic growth in Asia, Africa, and Latin America support the rise of multipolar global education hubs, reducing US dominance.

The forecast enjoys high confidence due to strong, persistent trends and structural drivers, although potential risk factors exist. These include policy changes offering expanded visa or national interest exemptions, geopolitical events that redirect student flows toward the US, or economic conditions making US education more affordable. Absent such shifts, the decline below 10% by 2030 seems highly likely, with significant implications for US higher education and global standing.

Key data informing this outlook come from sources such as IIE Open Doors, UNESCO Institute for Statistics, OECD Education at a Glance, and the World Bank EdStats, supported by analysis from WENR, HolonIQ, and Migration Policy Institute.

By 2030, it is projected with a 60% probability that alternative credential providers such as Coursera, Google, and edX will issue more than 1 million

job-relevant certifications annually in the United States, accounting for at least 20% of all new workforce-entry credentials. This reflects a deep transformation in how Americans prepare for entry into the workforce, as traditional postsecondary pathways like associate and bachelor’s degrees are increasingly supplemented, and in some cases replaced, by flexible, online, skills-focused certifications. “Job-relevant certifications” refer here to industry-recognized credentials designed to provide immediate labor market value in key fields such as IT, business, and healthcare, while “workforce-entry credentials” encompass initial degrees (associate, bachelor’s, vocational) and alternative certifications earned by individuals entering the workforce.

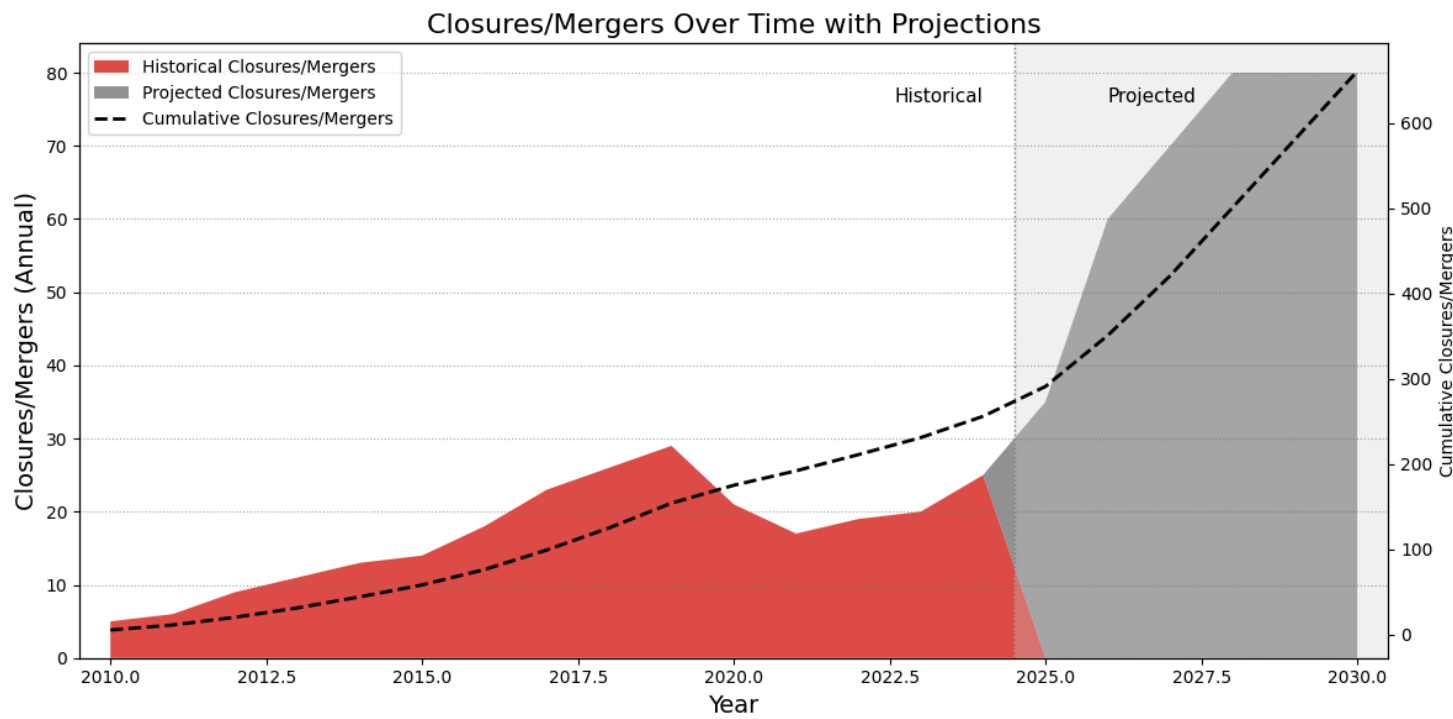
Historical trends reveal explosive growth in the issuance of alternative credentials since 2015. Platforms like Coursera have seen their annual certificate completions multiply, especially after the launch of Google Career Certificates and other high-profile programs. By 2025, Google Career Certificates alone have enrolled nearly 3 million learners worldwide, with hundreds of thousands completing job-relevant credentials annually in the US. The COVID-19 pandemic and ensuing “Great Resignation” period acted as inflection points, driving millions to seek rapid, job-aligned upskilling via online platforms. Aggregate issuance of alternative credentials by major providers rose from fewer than 100,000 in 2015 to an estimated 700,000–800,000 by 2024, putting the 1 million mark within reach by the end of this decade. In comparison, the US confers about 1 million associate degrees, 2 million bachelor’s degrees, and hundreds of thousands of vocational credentials each year, with total workforce-entry credentials estimated at 4.5 to 5 million annually, meaning alternative credentials are on track to comprise at least 20% by 2030, assuming current trends persist.

Several forces are driving this shift. Employer acceptance is expanding, with more than 150 major US firms now considering Google Career Certificates and similar alternative credentials as valid markers for entry-level jobs. Alternative credentials are far more cost-effective and can be completed in months rather than years, lowering access barriers for historically underrepresented groups. Robust partnerships between platforms, universities, companies, and governments have further increased access and value, while federal and philanthropic initiatives are piloting new funding models, such as extending Pell Grants to non-degree programs. This democratization of skill acquisition increases labor market mobility, disrupts traditional higher education models, and facilitates the rise of “skills-first” hiring pipelines, especially in the fast-growing tech and digital economy. Furthermore, the move toward stackable and portable credentials supports flexible, lifelong learning.

regulatory and quality assurance concerns, and it remains possible that some sectors will persist in relying on degree requirements longer than expected, slowing the uptake of alternative credentials.

Altogether, available data and current momentum suggest that surpassing 1 million annual job-relevant alternative certifications, and reaching the 20% share of new workforce-entry credentials in the US, is increasingly likely by 2030, provided that employers, policy makers, and learners remain engaged in sustaining and evolving these new pathways to economic opportunity.

By 2030, it is estimated that at least 15% of US private colleges operating as of 2024 will have closed or merged: a figure that could represent approximately 700 institutions out of around 4,700. This projection carries profound implications for the higher education sector, regional economies, and student access,



Nevertheless, this shift faces risks and uncertainties. The credibility and signaling power of alternative credentials must continue to be nurtured, as employer trust is not yet as universal as for established degrees. There are also

particularly in rural areas and small towns that depend on these colleges for local stability and opportunity. The pace of closures and mergers has accelerated markedly since 2010, first among for-profit institutions, driven by

regulatory tightening and changes in federal aid, and increasingly among small private nonprofit colleges facing persistent enrollment challenges and revenue deficits. According to data from the National Student Clearinghouse and various higher education trackers, the US has seen at least 312 colleges granting associate degrees or higher close between 2008 and 2024, and the closure rate among private nonprofits has especially surged since 2020, with at least 80 such cases documented in just the past four years.

Multiple headwinds are fueling this trend. Enrollments have been declining since the national peak in 2010, a pattern that is forecast to worsen as the “enrollment cliff” hits in 2025 due to falling numbers of high school graduates. Many small colleges operate with minimal endowments, rely heavily on high tuition discounting, and struggle to maintain financial sustainability, pressures that were briefly eased by pandemic-era federal relief funds (HEERF), set to expire by 2024. As these buffers disappear, more institutions are likely to announce closures or seek mergers as a lifeline. Recent years have averaged around 16 closures or mergers annually among private colleges, but projections in the sector warn this could rise steeply, particularly if student numbers contract sharply or if federal policy support does not materialize. Indeed, reaching a 15% closure/merger threshold by 2030 would require annual closure rates more than double those seen in the past decade, but this outcome remains plausible amid compounding demographic, financial, and market stresses.

Nonetheless, several counterforces exist. Some colleges may pivot to new business models, such as expanding online offerings, forming regional consortia, or specializing in adult and lifelong learning to delay closure. There is also the possibility of targeted government interventions, especially in regions where a

college’s closure would devastate the local economy. Still, the aggregated data and sustained adverse trends make a 15% sector contraction by 2030 a realistic prospect unless major strategies change. This analysis is grounded in data and projections from the National Center for Education Statistics, Department of Education’s IPEDS, Chronicle of Higher Education’s closure tracking, The Hechinger Report, and research from the Federal Reserve Bank of Philadelphia and Brookings.

There is a 70% chance that the wage premium for US college degree holders over high school graduates will decline by at least 10 percentage points by 2032 compared to 2024. The "college wage premium" refers to the percentage difference in median weekly earnings between U.S. workers holding a bachelor’s degree and those whose highest education is a high school diploma. In 2024, this premium stands at about 62%, with college graduates earning a median weekly wage of approximately \$1,533 compared to \$946 for high school graduates. The prediction projects a 70% chance that by 2032, this premium will decline by at least 10 percentage points, dropping to around 52%. Such a decline would represent a significant narrowing of the wage gap that has historically favored college degree holders.

Looking at historical trends from 2000 to 2024, data from the Bureau of Labor Statistics and the Federal Reserve show that the wage premium has generally increased, rising from around 50–55% in 2000 to approximately 62% in 2024. The premium peaked after the 2008 financial crisis when wages for less-educated workers stagnated, and experienced some temporary dips during periods like 2021–2022, when wage growth for lower-income, frontline workers accelerated amid labor shortages and pandemic-driven market shifts. However,

recent data suggests that this premium has flattened and may be poised to decline in the coming years.

Several factors could drive this projected decline between 2024 and 2032. Employers are increasingly adopting skills-first hiring practices that prioritize verifiable competencies, microcredentials, and work samples over formal degrees, thus reducing the wage advantage traditionally tied to bachelor's degrees. Advances in artificial intelligence and automation are enhancing productivity in many middle-skill roles, which can raise wages for non-degree holders and narrow the earnings gap. Additionally, the expansion of "learn-and-earn" programs such as apprenticeships and bootcamps provides alternative pathways to good-paying jobs without requiring a four-year degree. Market saturation of degree holders and wage growth in skilled trades and logistics (areas often accessible without a bachelor's degree) may further contribute to shrinking the premium.

The implications of a narrowing college wage premium are significant. Economically, it challenges the long-standing return on investment for traditional college education, intensifying discussions around rising tuition costs and student debt. Socially, it may alter the pathways for upward mobility, making apprenticeships and alternative credentials more attractive, but potentially complicating equity outcomes across different populations. Policy-wise, a decline in the premium could prompt a realignment of financial aid priorities such as

broadening Pell Grant eligibility to non-degree programs, and encourage greater investment in workforce development and lifelong learning to align credentials with labor market demand.

Nevertheless, several risks and alternate scenarios could influence this trajectory. The wage premium might remain stable or rebound if AI technologies disproportionately displace low-skill jobs while increasing demand for college-educated workers in cognitive and creative roles. Continued labor shortages in skilled, degree-dependent fields could sustain or elevate the premium. Furthermore, significant reforms in higher education that better align curricula with employer needs might preserve or even enhance the wage advantage of a college degree. Conversely, if more students forego college in favor of alternative credentials or direct workforce entry, and if employer hiring criteria continue to shift, the decline in wage premium could occur more rapidly than projected.

Overall, the available data and current labor market trends support the likelihood of a meaningful narrowing of the college wage premium by 2032, although outcomes will depend on multiple technological, economic, and policy factors. Key data sources for these insights include reports from the Bureau of Labor Statistics, Federal Reserve research, Pew Research Center, Brookings Institution, and the Georgetown Center on Education and the Workforce

But human capital is only one side of the equation. What nations choose to *do* with their talent, the systems they build to deploy, govern, and scale it, matters just as much. Nowhere is this clearer than in the strategic race around artificial intelligence. As universities weaken and credentialing diversifies, the burden of innovation shifts to new institutions: private labs, national research initiatives, and frontier tech firms. In a world governed by modern mercantilist logic, AI becomes not just a technological domain, but a sovereign asset subject to regulation, industrial policy, and geopolitical tension. The same pressures reshaping education (talent flows, domestic capacity, erosion of trust) are playing out more aggressively in AI, where control over data, compute, and labor will define the next phase of global power competition.

AI, Tech and the New Sovereignty Game

In my view of the world, artificial intelligence is not merely a technological breakthrough: it is the new backbone of national power. If education shapes the inputs of national strength, AI determines how effectively those inputs are transformed into output: economic productivity, military capability, and social control. In this sense, AI today occupies the same strategic role that industrial capacity, oil reserves, or naval dominance did in past eras of mercantilist competition. It is not just a tool, but a terrain, something nations must govern, protect, and control if they are to remain globally relevant.

Modern mercantilism, as I understand it, is not about tariffs alone. It's about the sovereign accumulation of strategic capacity. In the AI era, this means hoarding compute infrastructure, securing domestic data flows, and subsidizing frontier innovation, not unlike how states once stockpiled gold, protected domestic manufacturers, or funded dual-use technologies during the Cold War. When countries implement data localization laws, it is not a bureaucratic quirk: it is digital resource nationalism. When they restrict foreign AI platforms from dominating their labor markets, it is labor protectionism in algorithmic form.

What we are witnessing is the reemergence of the state as a technological actor, not just as a regulator, but as a funder, gatekeeper, and strategic coordinator. Public R&D in AI mirrors the industrial policies of 20th-century mercantilist states that built steel mills, telecom infrastructure, and aerospace programs to guarantee independence and project power. The motivations are similar: not just economic growth, but autonomy, resilience, and leverage.

This convergence of AI, policy, and national interest is no accident. It is a logical outcome of a world where data replaces oil, chips replace tanks, and the ability to govern computation becomes a proxy for the ability to govern everything else. Modern mercantilism is not about resisting innovation but it's about harnessing it for national advantage, even if that means breaking from the open, global norms that defined the previous digital era.

This logic is already taking regulatory form. For instance, I predict: ***There is a 65% chance that by 2030, at least 3 G20 countries will mandate that all AI models deployed in critical industries must be trained exclusively on domestic data***

Recent trends indicate growing momentum among G20 countries toward the adoption of mandates requiring AI models deployed in critical sectors, such as defense, finance, and infrastructure, to be trained exclusively on domestic data. This shift reflects heightened concerns around national security, data sovereignty, and geopolitical competition. China exemplifies the most advanced stance in this area, backed by strict data localization laws that encompass strategic datasets and explicit AI regulations. India and Saudi Arabia are actively debating or introducing similar frameworks that could soon require such domestic-only training in critical industries. The United States, while currently lacking a formal legal mandate, is promoting the use of domestically sourced data through federal procurement policies and defense AI standards, showing a strong preference though stopping short of outright requirements. Likewise, the European Union has established stringent controls under the AI Act and GDPR, particularly regarding traceability and data governance in high-risk sectors, leaving room for future national mandates.

Precedents for these policies are well established across the G20, where numerous countries have enacted regulations ringfencing technology, such as banning foreign telecom equipment from sensitive networks, and implementing data residency rules for critical financial and health data. These efforts are often driven by strategic needs to safeguard national infrastructure and reduce reliance on foreign technologies. The strategic motivations underpinning domestic-only AI training mandates involve reducing risks associated with adversarial data manipulation or espionage, ensuring AI systems are aligned with domestic laws and cultural norms, simplifying regulatory oversight, and securing technological leadership amidst global competition.

However, these efforts face opposition from multinational corporations, cloud providers, and trade partners, who argue such mandates could hinder innovation, raise costs, and degrade AI model performance by limiting access to diverse data sources. Technical challenges also arise, given the necessity of large, varied datasets to build high-quality AI systems, raising doubts about the feasibility of strictly domestic data training. Furthermore, data nationalism could spark conflicts with international trade laws and diplomatic relations, adding complexity to enforcement.

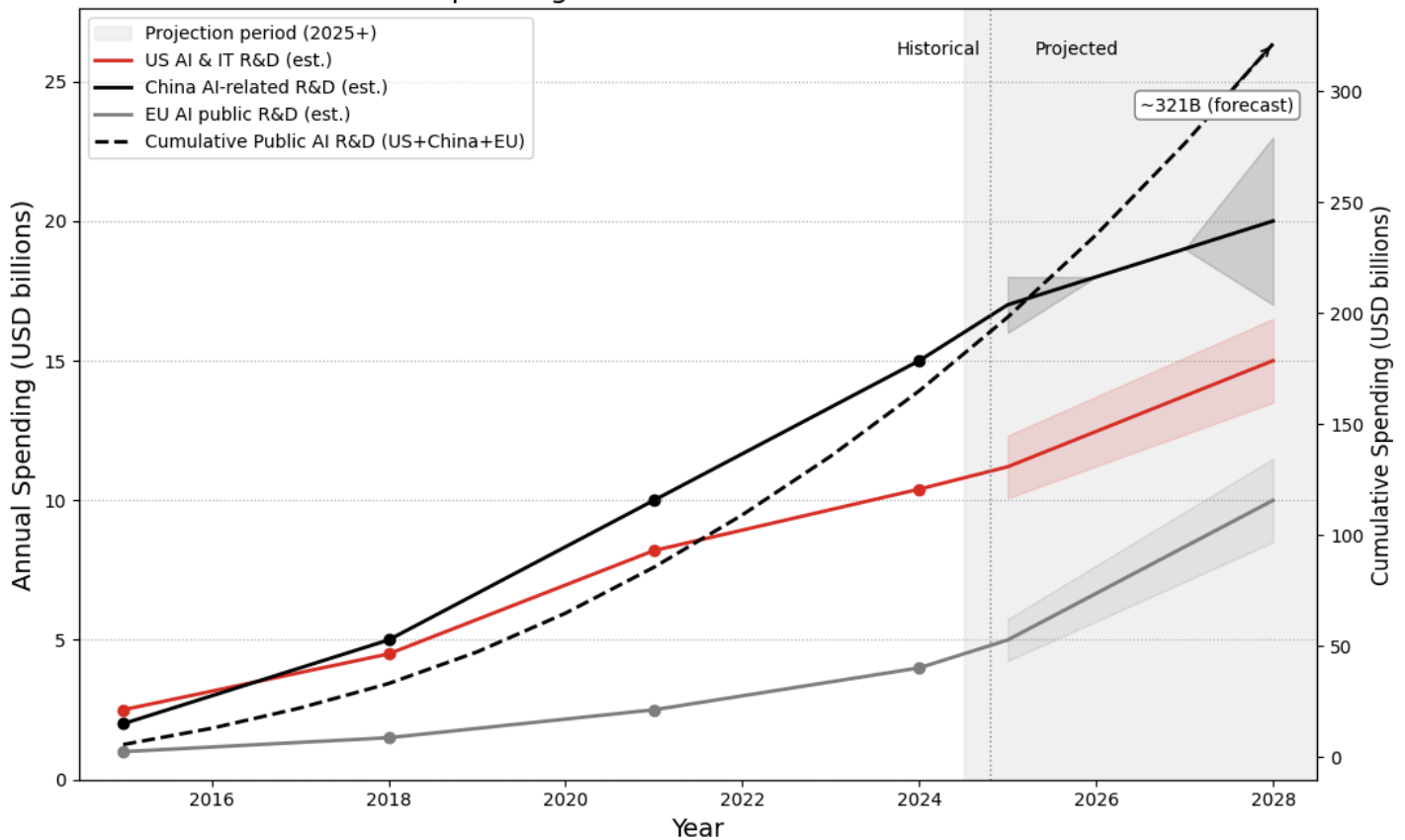
The following table summarizes the current positioning of five key G20 countries regarding AI and data localization mandates in critical sectors as of 2025

Country	Existing AI/Data Localization Laws	Trends Toward Domestic Data
China	Strict data localization (all critical/strategic data); AI draft regs	Yes, strongest push; growing alignment of AI with data sovereignty mandates
India	Data protection/finance/defense residency; discussions on AI	Debated/proposed for critical sectors; likely to expand
Saudi Arabia	Draft “Global AI Hub Law” (2025); data embassies	Likely to expand in critical sectors if law is ratified
US	Critical infra, defense data governance rules; no full mandate	Strong preference in procurement, but no blanket law yet
EU (France, Germany)	GDPR, sectoral laws; AI Act (regulates inputs/traceability)	Sectoral/pilot projects in finance and defense; strictest in “high-risk” areas

Therefore, there is a significant likelihood that at least three G20 countries will mandate AI models in critical sectors be trained exclusively on domestic data. China, India, and Saudi Arabia are frontrunners, while the US and EU are progressing through more gradual regulatory

frameworks. The balance between strategic imperatives and technical, economic, and diplomatic challenges will determine how these policies evolve in the coming years.

Public AI R&D Spending: US vs China vs EU with Cumulative Total



Recent trends reveal a significant surge in public investment and strategic policy framing of artificial intelligence (AI) by the United States, China, and the European Union. These entities increasingly treat AI not just as a technological innovation but as critical infrastructure fundamental to national security, economic growth, and geopolitical influence. Since 2015, public AI research and development (R&D) spending by these three has ramped up sharply, with combined budgets from the US, China, and the EU poised to surpass \$300 billion by 2028 with high confidence. The US, through legislative frameworks like the CHIPS + Science Act, has raised AI R&D budgets to over \$11 billion by 2025. Meanwhile, China uses central planning and guidance funds to drive an estimated \$15–20 billion annually, focusing on frontier AI capabilities aligned with defense and economic priorities. The EU, though investing comparatively less, pursues an ambitious €200 billion

InvestAI program designed to amplify AI research and commercialization by 2030, balancing innovation with strong ethical and regulatory oversight.

This wave of public investment mirrors historical examples where governments have aggressively supported strategic sectors such as energy, steel production, space exploration, and semiconductors — considered essential to maintaining global competitiveness and sovereignty. AI's rise as a centerpiece in the evolving Modern Mercantilist playbook sees states steering resources and policies toward shaping future technological ecosystems, seeking to secure leadership in both commercial and military arenas.

Yet while governments race to dominate the AI frontier, **labor organizations are mounting a parallel front, demanding accountability, transparency, and rights in an algorithmic economy that often sidelines the worker.** Growing concerns center on algorithmic opacity,

worker surveillance, and the potential erosion of labor rights through automation. Unions such as Germany’s IG Metall have already embedded demands for AI transparency and worker data protections into collective bargaining, notably in manufacturing sectors. The United States’ AFL-CIO and international bodies like UNI Global Union have released white papers calling for stringent oversight, audit rights, and protections against unchecked AI decision-making impacting hiring, evaluations, and workplace monitoring. These unions actively represent sectors most affected by AI (logistics, gig economy, public services, and technology) with demands reflecting the increasing importance of algorithmic accountability in labor relations.

Together, these developments exemplify the twin pillars of Modern Mercantilism in the AI era: robust state-led investment to develop and control strategic AI capacities, counterbalanced by organized labor’s pushback demanding transparency, equity, and safeguards against AI-driven labor disadvantages. This interplay highlights a new frontier in the contest over technological power—not only among nations but between capital and labor, centered on data control, algorithmic governance, and socioeconomic impact.

The table below summarizes the position of key G20 countries Labour Unions in regard to AI and policy and to implement protection for and AI transparency policies.

Year	AI Industrial Policy Milestone	Labor Union Action/Policy Demand
2018	US National AI Initiative Act	UNI Global Union white papers on platform worker rights
2019	China’s New Generation AI Plan launched	IG Metall begins campaign on AI transparency in industry
2021	EU AI Act proposal published	AFL-CIO forms AI Working Group
2023	US CHIPS + Science Act funds AI R&D	AFL-CIO releases “AI and the Future of Work” resolution
2024	EU InvestAI €200B announced	IG Metall demands inclusion of algorithmic audit rights

Thus, it is highly likely that by 2030 the US, China, and the EU will cumulatively invest vast public resources exceeding \$300 billion in AI R&D, cementing AI as a pillar of their industrial and security policies. Simultaneously, a growing labor movement will

increasingly demand transparent and accountable AI systems that respect workers’ rights, representing a critical social dimension to the AI arms race.

Just as AI has become the frontier of digital sovereignty, energy remains the foundation of physical power. Modern Mercantilism plays out across both domains—where nations seek control not just over data and compute, but over energy flows, supply chains, and critical minerals. The global race for energy security mirrors the AI arms race: state-led, security-driven, and deeply strategic.

Energy & Strategic Autonomy

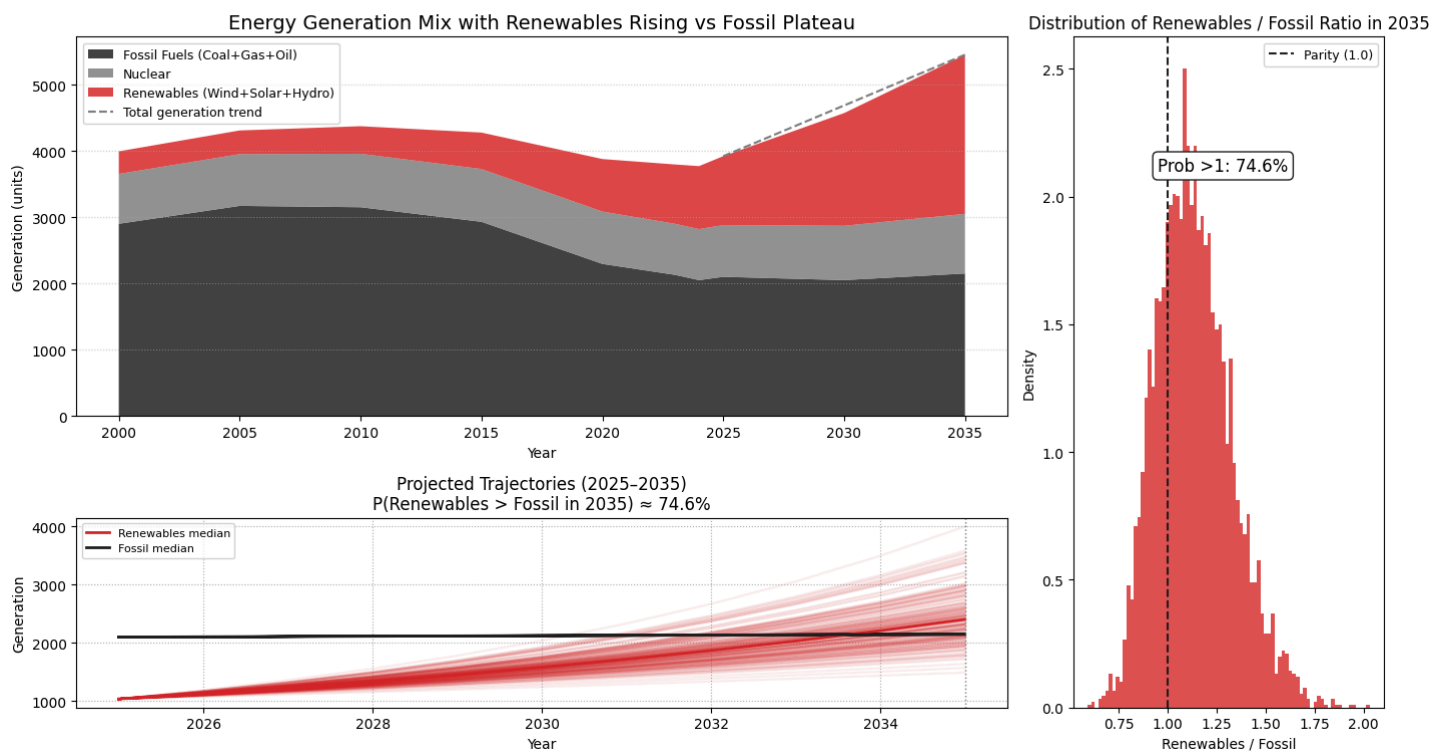
In my view, energy is no longer just a climate or economic issue, it's a foundation of national power. A country's ability to produce, defend, and compete globally hinges on secure energy access. This is why modern mercantilist states treat energy the way empires once treated gold or colonies: as a core asset to be controlled, subsidized, and defended.

We're seeing a clear shift toward energy nationalism. The U.S. is reshoring battery supply chains and ramping domestic production of critical minerals. China

dominates rare earth refining and continues investing in energy sovereignty. Policies like the U.S. Inflation Reduction Act aren't just about decarbonization, they're strategic industrial bets aimed at long-term advantage.

Just as tariffs once protected textile mills, today's energy trade policy is about safeguarding domestic resilience. From clean energy subsidies to export controls, states are redesigning global energy flows to ensure independence in a fragmented world. In this way, energy becomes a key front in the return of economic statecraft.

Renewables Surpassing Fossil by 2035



Despite historic momentum behind the transition to renewable energy in the United States, the pathway to renewables surpassing fossil fuels in electricity generation by 2035 is not a simple story of linear replacement. There is an 80% chance that renewables, wind, solar, and hydro combined, will

eventually overtake fossil fuels (coal, oil, and gas) in annual electricity generation, but both sources may continue to grow in absolute terms over the next decade, particularly if US energy policy re-emphasizes fossil fuel extraction under a “Drill baby drill” approach. Such a policy shift would likely spur increased production and

utilization of domestic oil and gas, especially as overall energy demand rises due to factors like data center proliferation, electrification of transport, and AI-driven economic activity. In this scenario, total electricity generation could expand, with renewables meeting much of the incremental new demand while fossil fuel output remains steady or grows in portions of the power sector resistant to rapid decarbonization.

Over the long term, however, several structural trends still favor renewables. Technology improvements and plunging costs have made wind and solar the most cost-effective sources of new utility-scale electricity, and federal policies, including long-term subsidies from the Inflation Reduction Act, together with state renewable mandates, continue to incentivize massive renewable buildout. As grid-scale storage technology advances and transmission investments accelerate, renewables' share of generation is expected to climb steadily even amidst robust fossil support, positioning them to eventually overtake fossil fuels in national generation share by or after 2035.

At the same time, nuclear energy's prospects have brightened due to bipartisan policy support and technological breakthroughs such as small modular reactors (SMRs). These innovations may enable nuclear to expand or maintain a stable share of US generation, providing crucial low-carbon, always-on capacity that complements the variability of renewables. Recent Department of Energy demonstration projects and streamlined state permitting could further boost nuclear's role in the US energy mix.

Overall, while the precise timing of renewables surpassing fossil fuels will depend on uncertain political, market, and technological developments, the transition's direction appears clear. Both fossil fuels and renewables could show absolute growth over the next decade, with

renewables ultimately capturing a dominant share thanks to their improving economics, policy momentum, and critical role in national energy sovereignty. The continued evolution of the US electricity sector will reflect not only decarbonization goals but also the realities of energy demand, grid reliability, industrial strategy, and political change.

By 2028, there is a 60% chance that the United States will sign at least three new bilateral strategic resource agreements with developing nations aimed at securing access to rare earth elements (REEs) and battery-critical minerals such as lithium, cobalt, nickel, and graphite. This forecast reflects the increasingly urgent effort by the US government to diversify and strengthen critical mineral supply chains vital for emerging technologies like electric vehicles (EVs), AI, and national defense. Historically, the US was a leading producer of REEs but ceded dominance to China by the late 1990s, leading to a recognized vulnerability that has driven recent investments and partnerships with allied countries to mitigate supply risks.

Key target regions for these new agreements include Latin America, Africa, and parts of Asia. Countries like Chile and Argentina in Latin America hold immense lithium reserves essential for battery production, while African nations such as the Democratic Republic of Congo (DRC) and Namibia provide critical cobalt and rare earths despite political risks. In Asia, Indonesia has become a major nickel producer, and Mongolia's untapped mineral wealth offers strategic diversification potential. These regions are strategically relevant because of their resource endowments and, increasingly, their openness to cooperating with US-led supply chain initiatives aimed at reducing reliance on China, which currently dominates mineral processing worldwide.

Country/Region	Agreement Type/Status	Key Materials	Year(s)
Australia, Canada	Processing/Joint ventures	REEs, Lithium, Cobalt	2019–2025
Ukraine	Bilateral critical minerals pact	Lithium, REEs	2025
DRC, Rwanda	Peace deal & mineral access	Cobalt, Copper	2025
Quad (AUS, IND, JAPAN)	Multilateral supply chain MoU	Multiple	2024–2025
Chile, Argentina	MoUs, negotiations ongoing	Lithium	Potential
Namibia/Zambia	Exploration/partnerships ongoing	REEs, Cobalt	Potential
Indonesia	Negotiations ongoing	Nickel, Cobalt	Potential

The US’s resource diplomacy is closely tied to initiatives like the Inflation Reduction Act (IRA) and the Defense Production Act, which provide incentives for sourcing minerals from trusted partners and fund domestic processing capabilities. Since 2021, the US has signed memoranda of understanding (MoUs) and cooperation frameworks with countries including Ukraine and members of the Quad alliance (Australia, India, Japan), while actively fostering friend-shoring policies to build resilient, geopolitical supply chains. This escalation is driven by surging mineral demand from clean energy and AI sectors, intensified competition with China for resource influence, and national security concerns about dependencies in critical technologies.

There is a strong and growing case that by 2029, at least one major U.S. utility will implement AI-driven demand response limits, effectively rationing electricity usage during peak or strained grid conditions, and this action will provoke states to adopt clean energy protectionist policies in response. AI-driven demand response leverages advanced AI algorithms and real-time data analytics to more precisely predict, manage, and

However, potential obstacles remain substantial. Political instability, resource nationalism, and regulatory uncertainties in partner countries can complicate or delay project implementation. Local opposition to mining and infrastructure development also presents challenges. Despite these hurdles, the US approach to securing strategic minerals mirrors historic mercantilist practices, where control over essential resources underpinned economic and geopolitical strength. This modern iteration harnesses economic statecraft, diplomatic partnerships, and strategic investments to position the US and its allies advantageously in the global competition for the foundational materials of tomorrow’s technology.

reduce electricity loads. Currently, utilities use AI to forecast demand surges hours or days ahead, optimize grid maintenance, and automate distributed energy resources. Demand response programs already exist in forms such as smart thermostats, which adjust HVAC during peak periods, and managed electric vehicle (EV) charging that shifts or limits charging loads to off-peak times. With AI automation, these programs can tighten

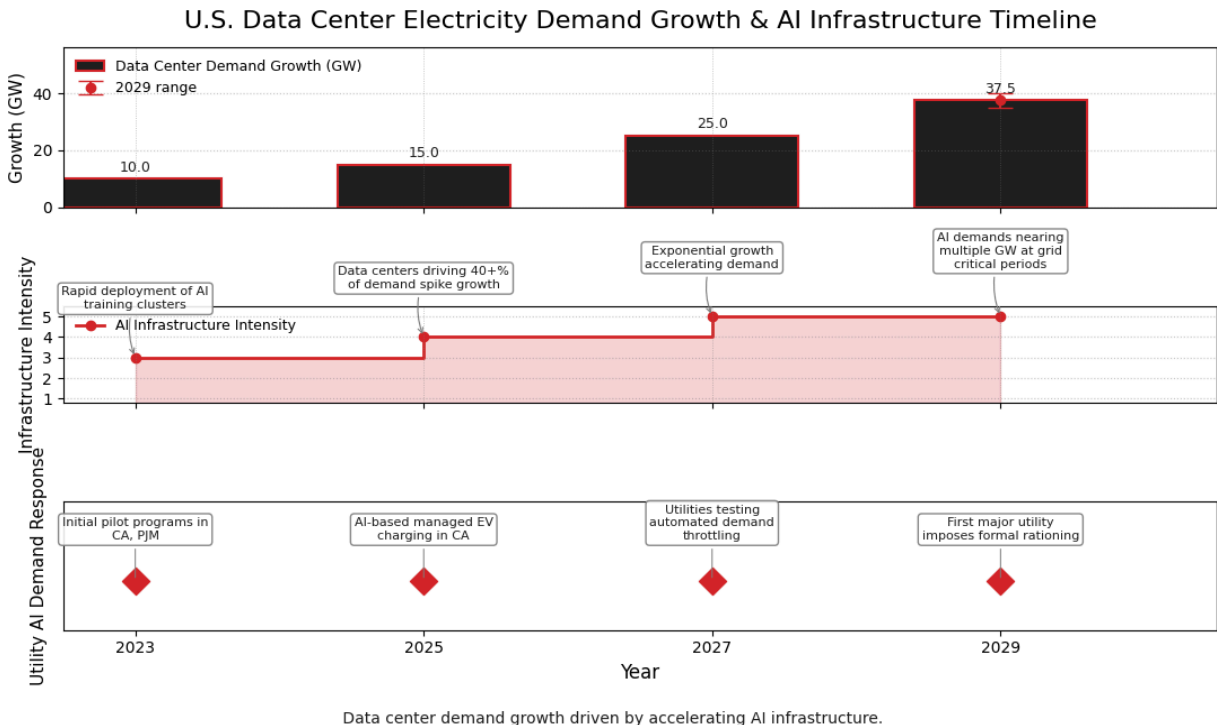
controls dynamically, throttling electricity use in commercial or residential sectors to prevent blackouts and reduce grid stress.

The increasing energy demand driven by AI infrastructure, hyperscale data centers and AI training clusters, and rapid EV adoption is placing significant strain on regional grids, especially in high-demand areas like ERCOT (Texas), California ISO, and PJM. For instance, studies show that electricity use by data centers in the U.S. is projected to grow by tens of gigawatts in the next 5 years, with data centers estimated to account for up to 44% of new electricity demand growth between 2023 and 2028. Utilities have already piloted usage caps and managed load programs: California ISO experimented with EV charging limits during heatwaves, and PJM has incorporated demand response as a key resource in grid reliability markets. Public backlash has occasionally occurred when consumers perceive rationing as unfair, highlighting the need for transparent policies and equitable load distribution.

In response to such utility-imposed rationing, states are likely to enact protectionist clean energy policies to bolster local grid resilience and autonomy. These could include mandates for in-state clean energy generation to reduce reliance on imports during peak periods, subsidies for

distributed energy resources like microgrids and battery storage to buffer demand spikes, restrictions on electricity exports, and prioritization of load to local residents or industries. Such measures can fragment interstate energy markets and complicate Federal Energy Regulatory Commission (FERC) oversight, potentially sparking regulatory conflicts. Equitable rationing will also be a concern, as utilities and states must manage contentious decisions about who faces load reductions first, industrial users, data centers, or households, bringing social justice considerations to the forefront.

This scenario exemplifies modern mercantilist dynamics in the energy sector, where electricity becomes a localized strategic resource. AI-driven demand response acts as a form of digital-era rationing and protectionism, akin to historical grain reserves or export controls used by states to manage critical supplies during scarcity. Energy sovereignty emerges as a lever of state autonomy and geopolitical power in the AI era, as controlling when, where, and how electricity flows increasingly determines economic competitiveness and social stability. Rising AI and EV loads, aging grid infrastructure, and climate stress make data-driven rationing, and the ensuing policy reactions, a likely feature of the near-term U.S. electricity landscape.



As nations race to secure clean energy dominance and fortify control over strategic resources, the energy transition reveals a deeper truth: modern mercantilism is an expensive game. Whether it's subsidizing domestic solar manufacturing, reshoring battery supply chains, or building out AI-powered grid infrastructure, the pursuit of sovereignty across sectors demands massive public investment. This brings us to the next frontier, **fiscal capacity and sovereign debt**, the engine room behind state-led industrial strategy. In my view of the world, the ability to finance large-scale economic transformation without triggering crisis is becoming the defining constraint on national power in the modern era.

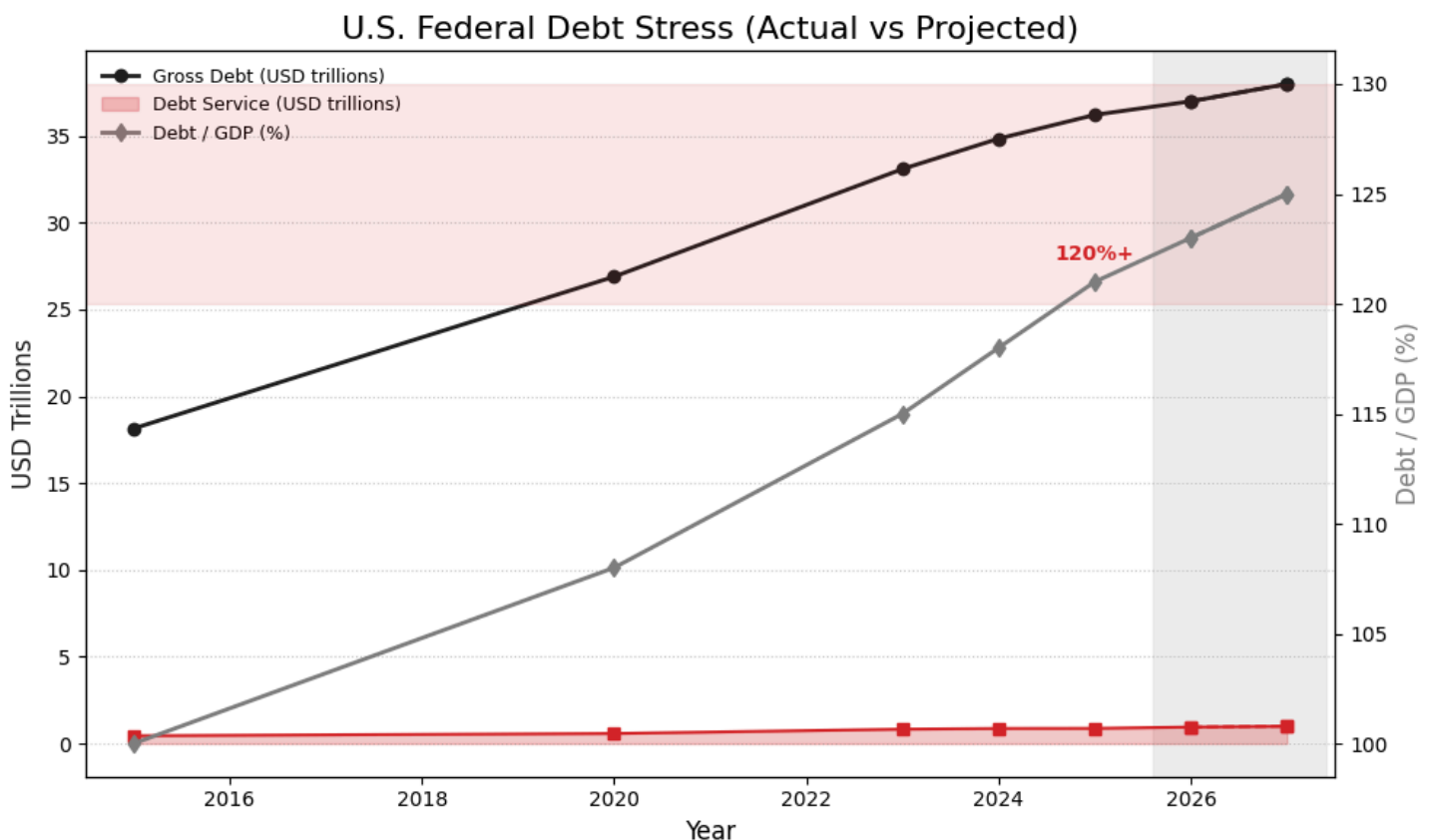
The Budgetary Limits of Empire

In my view, the single most underappreciated threat to American power isn't China's rise, AI disruption, or even climate instability, it's our balance sheet. Every ambitious industrial policy the U.S. pursues, whether it's reshoring chip fabs, electrifying the grid, or dominating frontier technologies, ultimately a burden on the federal budget. And that budget is groaning under the weight of a debt load that has quietly breached 120% of GDP. This isn't just a macroeconomic statistic, it's a geopolitical constraint. Mercantilist ambition without fiscal stamina is just rhetoric.

What concerns me is the growing tension between strategic necessity and fiscal reality. The CHIPS Act, the Inflation Reduction Act, defense modernization, energy security, all require sustained public investment. But interest payments are on track to surpass a trillion dollars annually, threatening to cannibalize the very funds

needed to compete in a multipolar world. In the 20th century, American power was built on a unique blend of private enterprise and public investment. In the 21st, we risk losing that edge, not for lack of vision, but for lack of runway.

To me, this is the paradox of modern mercantilism: the more we recognize the need for strategic statecraft, the less fiscal space we seem to have to enact it. And unlike prior eras, we can't inflate our way out or count on postwar growth booms to rescue the denominator. Deglobalization, demographic drag, and rising cost structures mean slower growth, just as the price of national sovereignty climbs higher. If the U.S. can't resolve this contradiction, its ability to project power and shape global norms could erode faster than most expect.

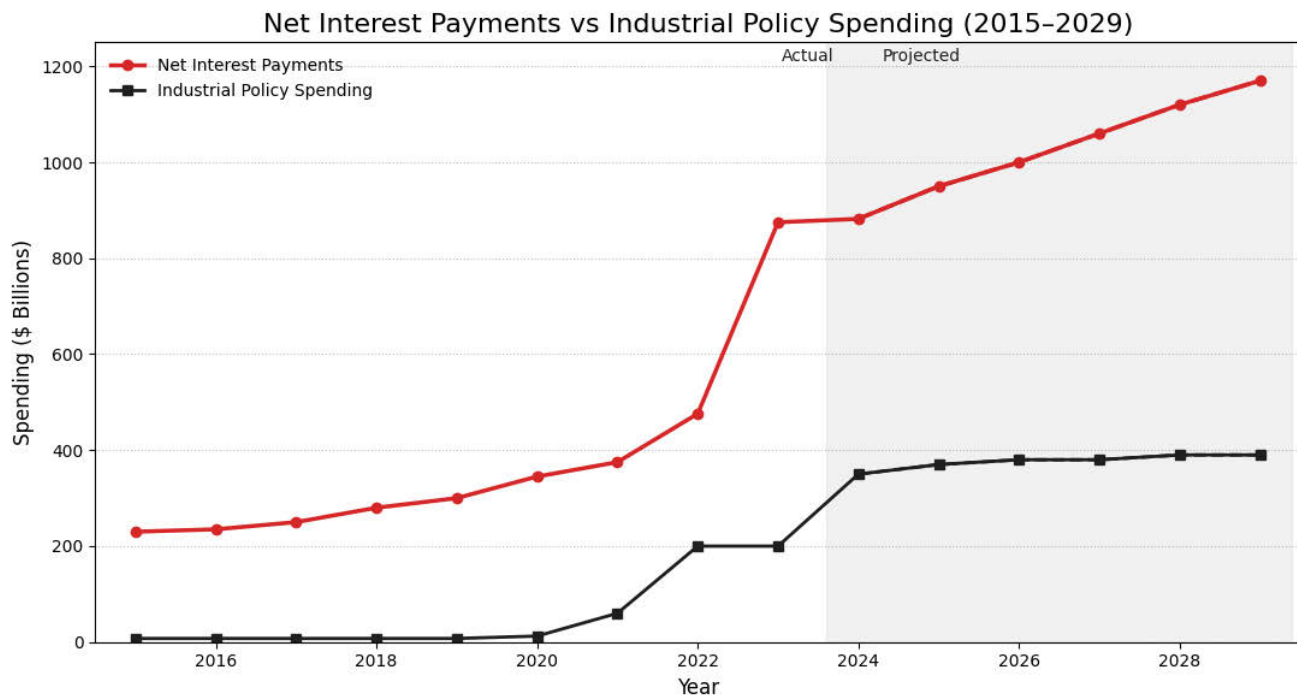


There is growing momentum in the United States toward introducing sovereign wealth fund (SWF)-like fiscal instruments aimed at managing rising debt service costs and enhancing fiscal sustainability amid mounting interest burdens. Most notably, on February 3, 2025, President Donald Trump signed an Executive Order directing the Treasury and Commerce secretaries to develop a comprehensive plan within 90 days for the creation of the first U.S. sovereign fund. This plan is expected to include proposals on fund structure, governance, funding mechanisms, and investment strategies designed to generate revenue, stabilize debt service costs, and bolster economic security for future generations. The envisioned SWF would seek to leverage vast federal assets, estimated at trillions of dollars across real estate, natural resources, and financial holdings, with a focus on promoting fiscal sustainability, lessening tax burdens on families and small businesses, and advancing U.S. economic and strategic leadership internationally.

Historically, the U.S. has relied on debt instruments such as war bonds during World War II and Treasury innovations in the 1980s to manage fiscal pressures. However, modern proposals for sovereign savings instruments reflect lessons learned globally from resource-rich countries like Norway and Singapore, which utilize sovereign wealth funds to stabilize revenues and invest strategically. For instance, Norway's Government Pension Fund Global channels oil revenues into global investments, preserving wealth for future needs, while Singapore's Temasek invests government-linked assets to support economic competitiveness without relying on natural resources. Though the U.S. is resource-rich, it faces distinct structural challenges, such as large budget deficits and a complex debt portfolio, making the design of a U.S.-style SWF novel and fiscally demanding.

Current fiscal pressures underscore the urgency of innovation. The Congressional Budget Office projects rapidly rising U.S. interest payments on the national debt, expected to approach nearly \$1 trillion annually and continue climbing through the next decade, exacerbating budget deficits and constraining policy options. Treasury officials and economic advisors acknowledge the need for new fiscal tools to stabilize debt service costs and mitigate risks posed by global investor concerns about U.S. debt sustainability. While no finalized legislative proposals have emerged yet, Congress has seen bipartisan interest, with bills like the American Sovereign Wealth Fund Exploration Act of 2025 introduced to study such mechanisms. Federal Reserve and IMF commentary increasingly highlight the importance of fiscal innovation and diversified government revenue streams in maintaining macroeconomic stability, particularly as traditional debt-financing costs rise.

Beyond classic savings bonds or war bond models, recent Treasury discussions and pilot considerations include long-duration public savings bonds and export-backed securities as potential instruments to deepen domestic capital markets and spread financing costs over longer horizons. These tools could complement a sovereign fund by locking in low-cost financing and leveraging nationally strategic assets. While the operational and legal complexities remain considerable, given U.S. federal accounting rules and political dynamics around asset monetization, signals from the Treasury, OMB, and White House indicate high-level consideration of fiscal innovation pathways. Taken together, this evidence supports the forecast that by 2027, the United States will announce or begin implementing a sovereign savings instrument or fund designed explicitly to stabilize debt service costs amid growing fiscal and market pressures.



By 2029, U.S. federal debt held by the public is projected to reach approximately 107% of GDP. According to the Congressional Budget Office (CBO) and Treasury data, net interest payments on this debt are expected to rise sharply, reaching about \$1 trillion in 2026 and climbing further to an estimated \$1.17 trillion by 2029. **This level of interest expense is roughly double the combined annual spending on key industrial policy programs** such as the CHIPS Act, the Inflation Reduction Act (IRA), and clean energy subsidies, which together total a few hundred billion dollars annually over their multi-year authorization periods. For instance, the IRA allocates around \$369 billion over ten years, and the CHIPS Act commits \$52 billion for semiconductor incentives over a similar timeframe. Therefore, interest payments are on track to exceed industrial policy spending by a factor of about 2:1 by 2029.

Regarding inflationary risks, the combination of debt-financed industrial policy and supply-side constraints, including reshoring initiatives, labor shortages, and raw material bottlenecks, **could push**

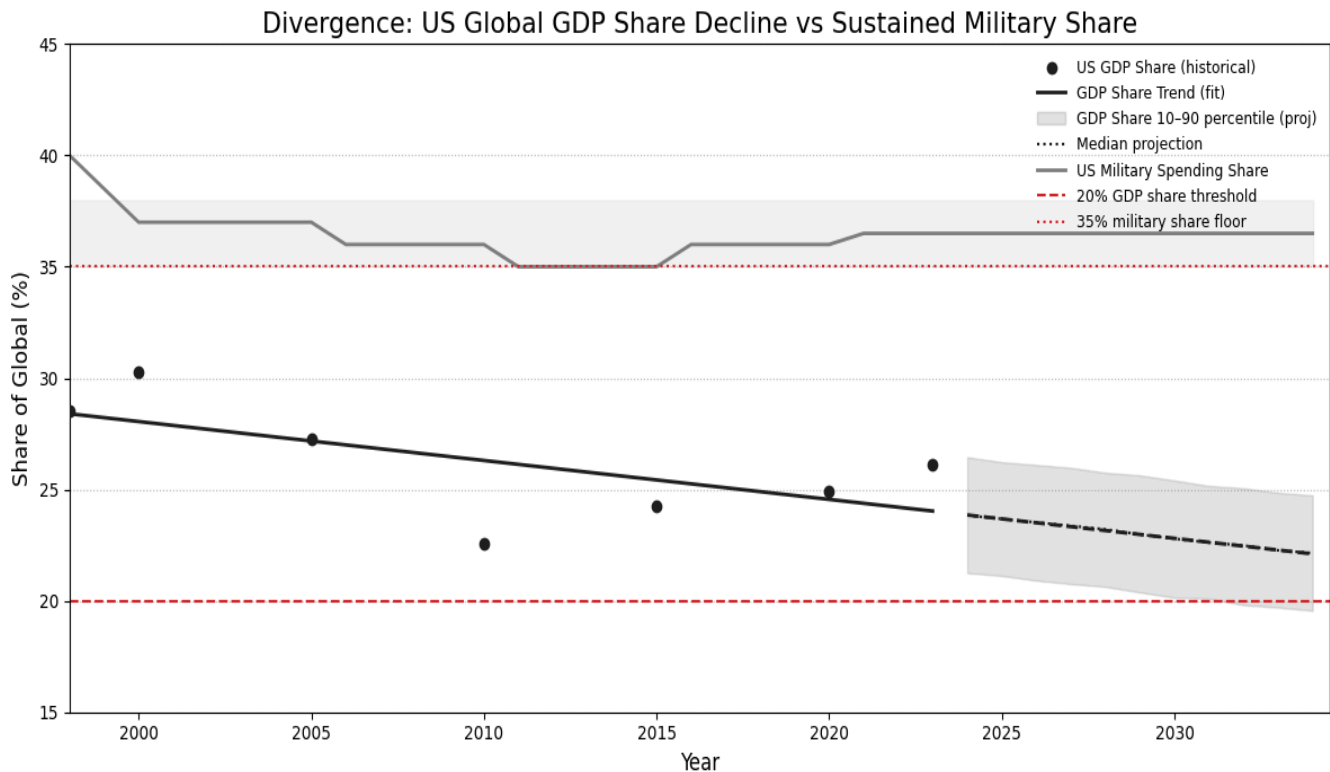
average U.S. Consumer Price Index (CPI) inflation above 3.5% from 2025 through 2032. Data and commentary from the Bureau of Labor Statistics (BLS), the Federal Reserve, and macroeconomic think tanks indicate that while inflation pressures have been higher than historical norms recently, medium-term projections expect somewhat moderated inflation if supply-side capacity expands. Large-scale public investment can cause temporary inflationary pressures through increased demand and industrial disruptions, but these effects often subside if productive capacity and efficiency improve over time.

Historical parallels illustrate how large-scale public investment financed by debt have impacted inflation and interest burdens. During World War II, massive debt financing led to elevated inflation and interest rates, which were eventually mitigated by post-war productivity growth and demographic expansion. The 1970s stagflation period demonstrates the potential for persistent inflation when supply shocks coincide with loose fiscal and monetary policies. More recently, the post-pandemic fiscal stimulus resulted in above-target

inflation that receded as supply chains normalized. Thus, the fiscal and inflationary outcomes of industrial policy depend heavily on the supply-side response and monetary policy management.

Potential mitigating scenarios that could reduce fiscal stress and inflationary pressure include productivity gains driven by technological innovation, such as artificial intelligence, and the identification of new revenue sources, including better tax compliance and carbon pricing revenue. Additionally, coordinated fiscal policymaking together with Federal Reserve interventions can help anchor inflation expectations and contain increases in debt service costs.

long-term effects of deglobalization and fiscal pressures. Despite this relative economic decline, I anticipate that the U.S. will continue to spend approximately 35% or more of global military expenditures, maintained by strong bipartisan support, entrenched defense-industrial interests, and ongoing geopolitical competition with powers like China and Russia.



In my view, there is a significant likelihood that by 2034, the United States will experience a **notable divergence between its share of global economic output and its sustained dominance in global military spending**. I predict that the U.S. share of global GDP will fall below 20%, driven by the rapid economic growth of emerging markets such as India, Southeast Asia, and Africa, coupled with slower productivity growth at home and the

This divergence, in my view, echoes dynamics seen in the late Cold War period, where the U.S. maintained military superiority despite economic headwinds. I believe this pattern reflects a modern mercantilist competition, wherein the U.S. invests heavily in military capabilities, including cutting-edge AI and defense technology, while facing growing challenges to its economic primacy. The sustained military spending burden may strain fiscal

flexibility and innovation capacity, complicating America's ability to adjust to the rising influence of emerging economies. Ultimately, this scenario underscores the need for the U.S. to balance hard power commitments with economic statecraft and domestic resilience to sustain its global leadership in an increasingly multipolar and technologically competitive world.

As the United States strains to balance its industrial ambitions with the weight of mounting debt, a deeper vulnerability is beginning to surface, not just in domestic fiscal stability, but in the foundations of global financial dominance. If the ability to finance strategic power is a pillar of modern mercantilism, then the erosion of the dollar's centrality in global trade and reserves represents a direct challenge to that pillar. In my view, the debt burden is no longer just a national issue; it's a systemic pressure point that invites alternative monetary systems, accelerates diversification away from the dollar, and reconfigures global economic alignments. What was once unthinkable, nations settling energy trades in yuan or gold, is now quietly becoming normalized. The next phase of this story isn't just about what the U.S. can afford, but whether the world still wants to pay in dollars for what America produces or defends. One potential counterbalance to this trend is emerging through stablecoin regulation: if the U.S. can lead in regulating and backing trusted dollar-linked digital assets, it may extend the dollar's relevance in a fragmented, multipolar financial system.

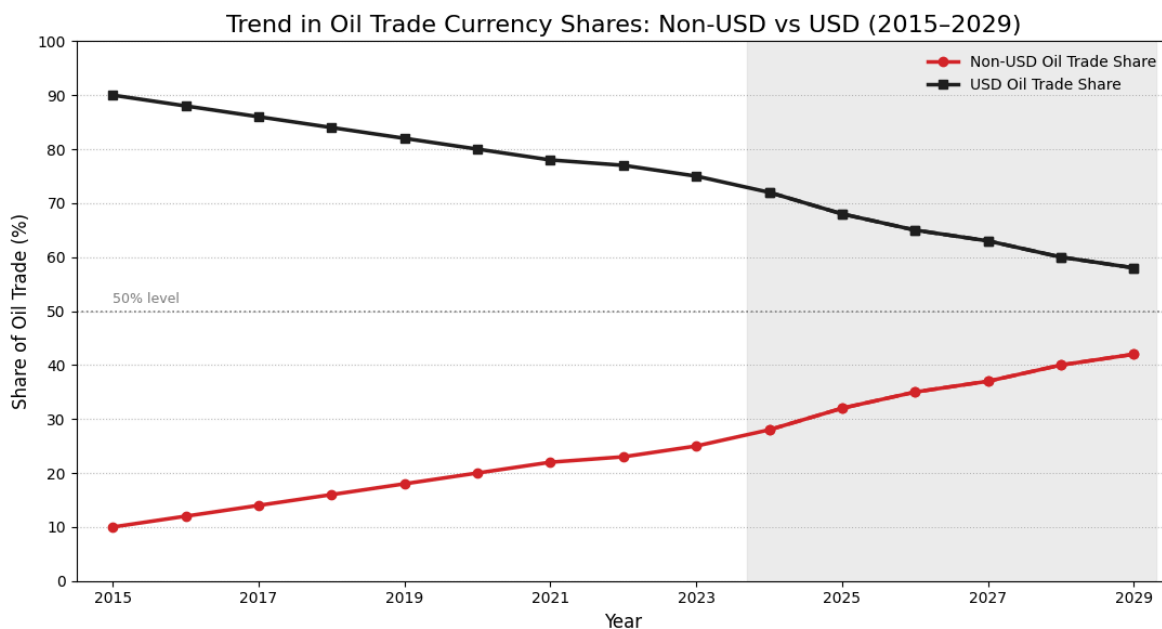
Monetary Power in a Multipolar World

In my view, the dollar's supremacy has long been one of America's most overlooked strategic assets, an invisible empire built not on territory, but on trust. That trust is now fraying. In a world increasingly governed by modern mercantilist logic, where economic tools are wielded as instruments of statecraft, the ability to dominate global finance has become both a weapon and a vulnerability. The U.S. has used this dominance to impose sanctions, regulate global capital flows, and shape the rules of trade, but each assertion of control pushes rivals to build alternatives. From Russia to China to BRICS+ nations, the motivation is no longer just economic efficiency, it's sovereignty. And in a multipolar order, financial sovereignty is becoming just as strategic as energy or manufacturing independence.

This shift is not abstract. Countries are settling oil and commodity trades in yuan, rupees, and gold. Central banks are hoarding bullion at the fastest pace since the 1960s. The push to de-risk from the dollar is a clear extension of mercantilist thinking: accumulate real assets, reduce external dependencies, and insulate national economies from geopolitical pressure. But what makes

this wave different from past de-dollarization attempts is the emergence of digital financial infrastructure. Blockchain-based payment rails, central bank digital currencies (CBDCs), and even stablecoins are reshaping the plumbing of global finance, making it increasingly feasible to bypass the dollar altogether. The tools of settlement are changing faster than the institutions that govern them.

That said, the U.S. is not standing still. One counterforce to de-dollarization could come from **GENIUS**: a Government- and Enterprise-backed National Infrastructure for Ubiquitous Settlement. If the U.S. can lead on regulated stablecoin frameworks, digitize Treasury instruments, and modernize its payments stack, it may reinvent the dollar's role for a decentralized, multipolar world. GENIUS represents a bet that the dollar can remain dominant not by resisting change, but by powering it. In my view, this is the battleground of modern mercantilism applied to finance: a race not just for commodities or trade, but for the protocols of global value exchange. The next reserve currency may not be printed but may be coded.



In 2023, approximately 20–25% of global oil trade payments were settled in non-USD currencies, signaling significant momentum toward dedollarization in commodity markets. According to recent reports, including from JP Morgan and expert commentary, about one-fifth of oil payments globally shifted away from the U.S. dollar in 2023, with BRICS countries (including Russia, China, and others) pushing for local currency use in oil trade. The expansion of the BRICS group with new members that are oil producers, such as the UAE and Iran, further supports this trend. Saudi Arabia's potential entry into BRICS and its consideration of accepting non-USD currencies, including the Chinese yuan, could increase the share of oil trade settled in local currencies in coming years.

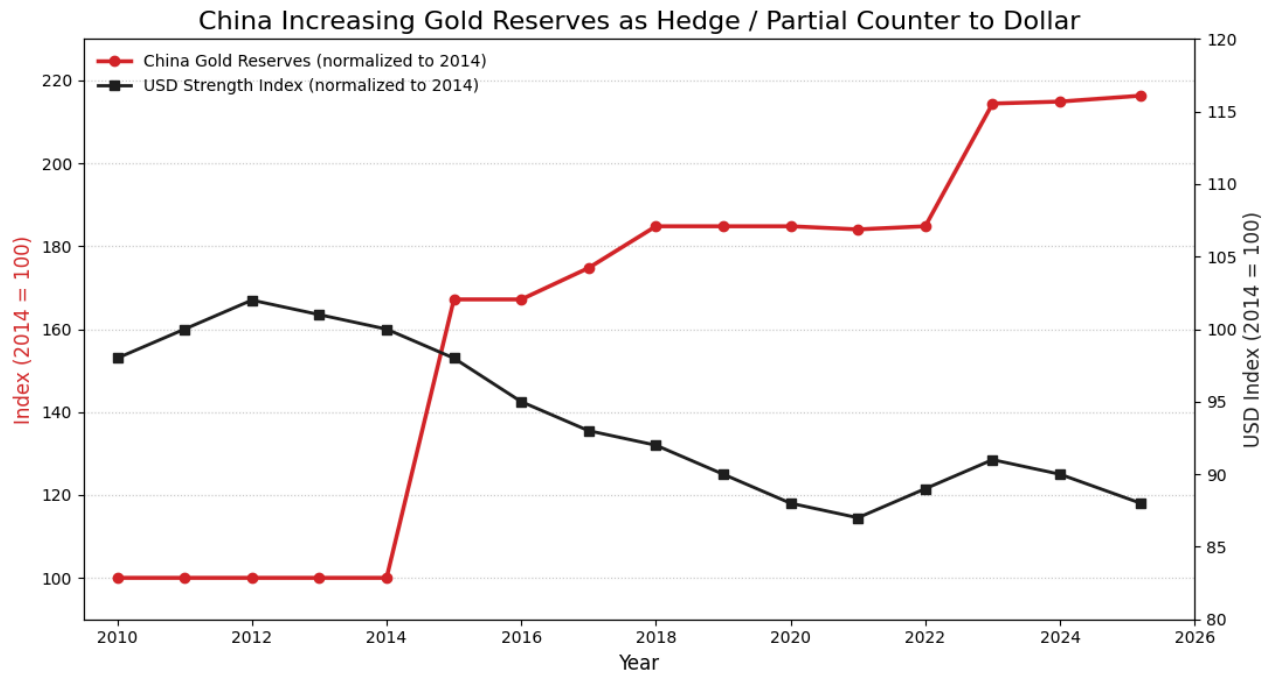
Countries and blocs leading this shift include Russia, which now sells much of its oil in yuan and other non-dollar currencies due to U.S. sanctions; China, actively promoting the yuan for cross-border oil payments through mechanisms like the Shanghai Petroleum and National Gas Exchange; India and Turkey, engaging in payments for energy imports in currencies other than USD; and members of the expanded BRICS alliance strategically expanding their use of local currencies. Bilateral oil agreements, currency swap lines, and alternative payment systems such as China's Cross-Border Interbank Payment System (CIPS) and

Europe's INSTEX have facilitated these transactions by circumventing the traditional SWIFT-enabled USD clearing framework, especially under increased sanction risks.

Additionally, petrodollar recycling and U.S. Treasury purchases linked to oil-export revenues appear to be declining relative to historic norms, as countries diversify reserves away from dollars amidst growing geopolitical

risks. Official statements and data from organizations like OPEC, the IMF, and BIS acknowledge this shift, with several oil-producing national oil companies exploring or supporting diversified currency pricing models. Emerging technologies such as central bank digital currencies (CBDCs) and blockchain-based platforms like mBridge promote faster, more secure, and transparent cross-border settlements, further enabling the use of non-USD currencies in energy trade.

Yes, the share of global oil trade settled in non-USD currencies, currently around 20–25%, **is trending upward and could plausibly surpass 40% by 2029**, reflecting a broader modern mercantilist strategy where nations seek trade currency sovereignty, reduce exposure to U.S. sanctions, and assert greater bilateral control over strategic commodity flows. This shift represents a fundamental challenge to dollar hegemony with wide-ranging implications for global finance, currency reserve composition, and geopolitical power structures.



As of early 2025, China holds approximately 2,280 metric tons of official gold reserves, ranking it sixth globally, while Germany remains the world's second-largest official gold holder with about 3,350 metric tons. Since 2018, the People's Bank of China (PBoC) has steadily increased its gold stockpiles, resuming purchases after a pause and accelerating accumulation in recent years. However, China's gold reserve disclosures show limits in transparency; there is speculation about sizable unreported or off-ledger gold stockpiles held by state entities or local bodies, which could substantially raise its true holdings beyond official IMF or World Gold Council figures. This pattern of deliberate accumulation and opaque reporting signals a strategic intention to build a robust gold base as part of China's broader reserve diversification and dedollarization efforts.

China's gold reserve strategy aligns closely with its geopolitical and economic aims to reduce USD exposure, enhance financial sovereignty, and project monetary stability amid global uncertainty. Gold provides a tangible asset shielded from sanctions, currency

volatility, and digital payment infrastructure risks, making it an essential "economic power insurance" in modern mercantilist terms. Furthermore, gold plays a potential role in BRICS-led dedollarization initiatives and emerging cross-border digital currency frameworks, possibly underpinning future central bank digital currencies (CBDCs) or serving as a trusted reserve backing that contrasts with fiat volatility. China's funding for gold purchases derives primarily from persistent trade surpluses and incremental sales of U.S. Treasuries, reflecting a reallocation strategy favoring hard assets over pure financial claims.

If **China surpasses Germany as the world's second-largest official gold holder by 2030**, the implications would be both symbolic and substantive. It would mark a clear milestone in the reordering of global reserve management psychology, signaling confidence in China's long-term economic and financial leadership. This shift could encourage other emerging markets and BRICS members to accelerate gold accumulation or diversify reserves away from traditional Western instruments. Macroeconomically, increased Chinese gold reserves would bolster China's options to manage

currency fluctuations, support yuan internationalization, and fortify monetary policy independence. Geopolitically, this rising gold dominance complements China's strategic push to reshape global financial governance and challenge the hegemony of U.S. dollar-based systems, hallmarks of modern mercantilist competition over economic sovereignty and strategic autonomy.

BRICS nations are actively pursuing a monetary future that reduces reliance on the U.S. dollar by **developing alternative payment systems and exploring commodity-backed digital currencies**. As of 2024–2025, Russia, China, and other BRICS+ countries are collaborating on blockchain-based platforms such as the BRICS Bridge and Project mBridge. These initiatives aim to facilitate cross-border settlements using a basket of assets including gold, oil, and local currencies, effectively backing a digital currency with tangible commodities. For instance, the New Development Bank President Dilma Rousseff confirmed an agreement in principle for a BRICS "Unit," backed approximately 40% by gold and 60% by member currencies, with physical gold held securely at national vaults. This structure would allow local redemption and off-balance-sheet custody for participants, enabling sovereign control, sanction evasion, and reserve diversification. The commodity focus includes gold, oil, and rare earths, resources strategically important for these economies. Governance models involve escrowed assets, blockchain interoperability, and decentralized control across BRICS+ members, with the goal of establishing trusted digital rails outside the SWIFT system.

Meanwhile, in the U.S., regulatory frameworks from the SEC, Treasury, and Federal Reserve have increasingly clarified the status of USD-backed stablecoins. These coins benefit from strong institutional trust, substantial liquidity, compliance backing, and integration with global payment rails including Visa, Mastercard, and SWIFT partnerships. Private sector actors like Circle, Coinbase, Stripe, and major banks are effectively expanding the use of these USD stablecoins for cross-border payments, remittances, and institutional settlements, capitalizing on faster and cheaper transfer capabilities. With robust regulation and extensive market infrastructure, **USD stablecoins projected to surpass 25% of global cross-border digital payments by 2030** is reaffirming the digital dollar hegemony.

In my view, these parallel developments are not mutually exclusive but represent a bifurcation of global monetary power reflecting fragmented financial infrastructure shaped by trust, technology, and sovereignty interests. The BRICS+ commodity-backed digital currency embodies modern mercantilist monetary sovereignty: anchoring value to real resources to shield from dollar leverage and sanctions, asserting geopolitical autonomy. Conversely, the U.S. stablecoin ecosystem leverages regulatory legitimacy and private-sector innovation to digitally uphold dollar dominance, a form of digital mercantilism that maintains the dollar's centrality in international payments despite geopolitical shifts. This dual system may see BRICS currency gaining regional traction in resource trade and sovereign settlements, while USD stablecoins dominate fintech, remittances, and broad institutional finance, together shaping a complex multipolar digital financial order.

Feature	BRICS Commodity-Backed Digital Currency)	USD Stablecoins
Asset Backing	40% physical gold (in national vaults), 60% BRICS member fiat currencies; basket structure	100% USD fiat reserves, fully redeemable 1:1 for U.S. dollars
Governance	Distributed/multilateral; no central issuer; managed via decentralized blockchain protocols among BRICS	Centralized issuance by private companies under U.S. oversight
Redemption Mechanisms	Physical gold or local fiat currency redemption per member rules; escrow enables local delivery	USD 1:1 redemption at authorized institutions and platforms
Regulation & Compliance	Sovereign consensus, programmable smart contracts for compliance, sanctions circumvention	Strict U.S. regulation (AML/KYC, audits), institutional trust
Strategic Objective	Monetary sovereignty, sanctions avoidance, reserve diversification, geopolitical independence	Maintain and extend digital dollar hegemony, regulatory trust, global dominance in payments

In my view, the fragmentation of the global monetary system marks the end of an era where a single currency could monopolize trust, trade, and settlement. Whether it's BRICS+ experimenting with commodity-backed units or U.S.-regulated stablecoins digitizing the dollar's reach, the future of financial power will be multipolar, programmable, and contested. What's clear is that currency is no longer just a medium of exchange, it's a tool of strategy, sovereignty, and influence. And in this new order, the question isn't just who holds the most reserves, but who builds the infrastructure, sets the standards, and earns global trust. As the dollar navigates these shifting tides, one nation quietly accumulating leverage across all these fronts, trade, capital, digital infra, and diplomacy: is India. The next chapter in modern mercantilism may not be written in Washington or Beijing alone, but in New Delhi as well.

India and the Strategic Ascent of the Global South

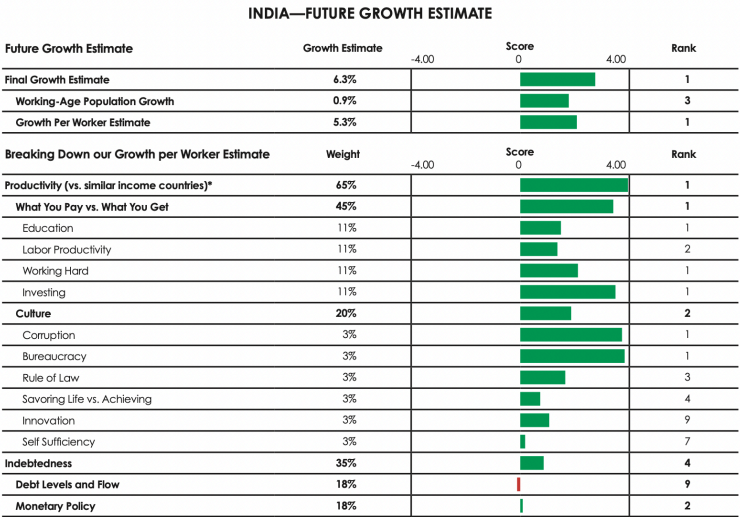
It’s worth acknowledging upfront: I carry a home-field bias. India is my country of origin, and perhaps because of that, I see things others sometimes overlook. But that proximity also gives me clarity. I’ve watched, up close, the scale, ambition, and contradictions of India’s rise—and in my view, the country is entering a pivotal decade where it won’t just grow economically, but step into a defining geopolitical role.

There is a 90% chance that by 2029, India will become the world’s third-largest consumer market, surpassing both Germany and Japan in total household consumption expenditure. This isn’t just a function of population, it reflects rising incomes, a growing middle class, and rapid digital inclusion. India is not following a traditional Western consumption curve; it’s leapfrogging. With digital public infrastructure like UPI, Aadhaar, and ONDC reshaping commerce and finance at population scale, India is building what might become the template for inclusive economic development in the Global South. In a world increasingly fragmented between aging developed economies and unstable emerging markets, India stands out for its youthful demographics, institutional reform momentum, and policy continuity.

The chart from Ray Dalio’s *The Great Powers Index: 2024*, offers a quantitative lens into why I believe India’s

rise is not speculative, but structural. With the highest growth estimate across leading economies (6.3%) and top rankings in education, investment, and productivity relative to peers, India is positioning itself as a high-efficiency growth engine. Its fiscal discipline, low debt burdens, and monetary flexibility add durability to that story. While challenges like bureaucracy and innovation remain, they are offset by cultural alignment toward hard work and a generational shift in aspirations. India is not just growing fast, it’s growing smart.

But India’s rise isn’t just economic, it’s also representational. I believe there’s an 80% chance that by 2027, India will be formally recognized as the primary geopolitical voice of the Global South, through alliances, G20 leadership outcomes, or the creation of new multilateral voting blocs. India’s unique positioning as a democracy, as a China counterweight, and as a development partner without coercive debt makes it the natural bridge between West and Rest. India is increasingly seen as the country that can speak for the billions who aren’t at the table. If the 20th century was shaped by the transatlantic order and the 21st by a US-China axis, the next chapter may hinge on what India does with its leverage—and whether the world is ready to listen.



Final Thoughts

At its core, this report is my attempt to wrestle with complexity, an exploration of where the world might be headed through the framework of modern mercantilism. These forecasts are not declarations of certainty, but rather informed probabilities grounded in structural forces, historical parallels, and current signals. I've tried to balance data with judgment, and conviction with humility. The world is too dynamic, too interconnected, and too human for perfect prediction. I'm still learning, and always will be.

Many of the views here are shaped by my background, my research, and my lived experience. That inevitably brings bias, but also unique perspective. I don't expect everyone to agree with every thesis I've outlined. In fact, I welcome disagreement. The goal isn't consensus, it's clarity. I'm deeply open to feedback, counterarguments, and ideas I may have missed. If this sparked a new way of thinking, a question, or even a challenge, I'd love to hear it.

I'm incredibly grateful for the opportunity to work on this project. To be able to explore, synthesize, and express my thinking on topics I care deeply about across energy, debt, currency, and global power is a privilege I don't take lightly. If you've read this far, thank you. If you have thoughts, critiques, or ideas for what's next, my door is open.

- Manav H Shah

About Me

Building, Learning, and Growing.

I'm Manav Shah, a 21-year-old rising senior at UIUC pursuing a dual degree in Industrial Engineering (Econ & Finance focus) and Technology Entrepreneurship. I thrive in unfamiliar terrain, navigating product strategy and process implementation in fintech and beyond. My journey is driven by a relentless pursuit of knowledge and a deep appreciation for human connection, with a commitment to turning ideas into impactful realities.

I believe in embracing challenges as opportunities to learn, grow, and connect. Whether it's exploring new markets, shaping innovative solutions, or collaborating with diverse teams, I'm energized by the process of vision to execution. Always open to meaningful conversations, fresh perspectives, and the possibilities that emerge from them.

Current focus: $1 \rightarrow \infty$

<https://www.linkedin.com/in/manav-hitesh-shah/>



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