The International Monetary System: Current and Future Challenges

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Based on the Jean Monnet Lecture, European Economic Association, August 2025 and IMFWP 'Upgrading the Global Financial Safety Net.'

The views expressed here are those of the author and should not be attributed to the International Monetary Fund, its Executive Board, or its management.

The International Monetary System

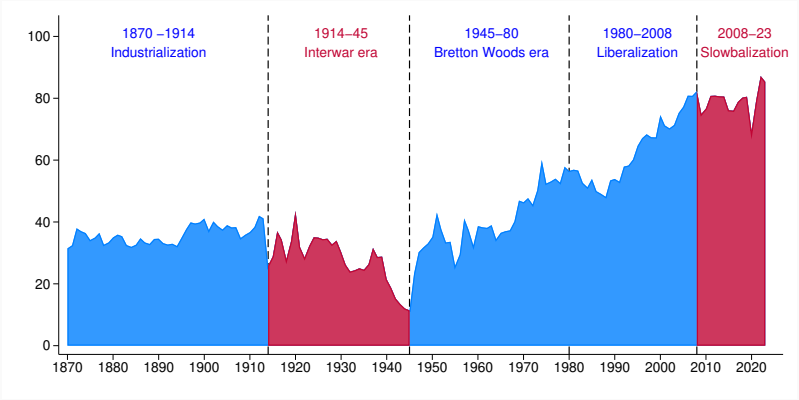
The International Monetary System (IMS):

- The 1944 Bretton Woods institutions were founded on a double proposition to ensure mutual prosperity (and peace)
  - 'Free' trade under WTO rules, and current account convertibility;
  - A global financial safety net to help manage temporary external imbalances (IMF)
- Followed by an explosion in global trade, then in cross-border financial transactions.
- Along the way, the nature of the IMS changed (end of Bretton Woods & floating exchange rates, oil price shocks of the 1970s, multiple financial crises, COVID...).
- In this lecture, I explore how the system has evolved and the challenges (old and new) that lie ahead.

The Structure of International Trade and Financial Flows

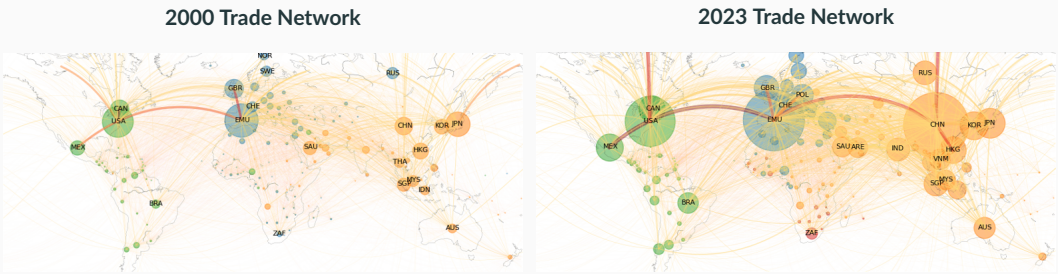
Trade Integration Surged then Plateaued

Figure 1: Trade Openness



Notes: The graph shows the yearly median of exports plus imports as a percentage of GDP, all measured in US dollars. Until 1955, the median is calculated across the 18 advanced economies included in the Jordà-Schularick-Taylor Macrohistory Database. From 1955 onwards, it is based on the median across the 188 economies covered by the IMF's World Economic Outlook.

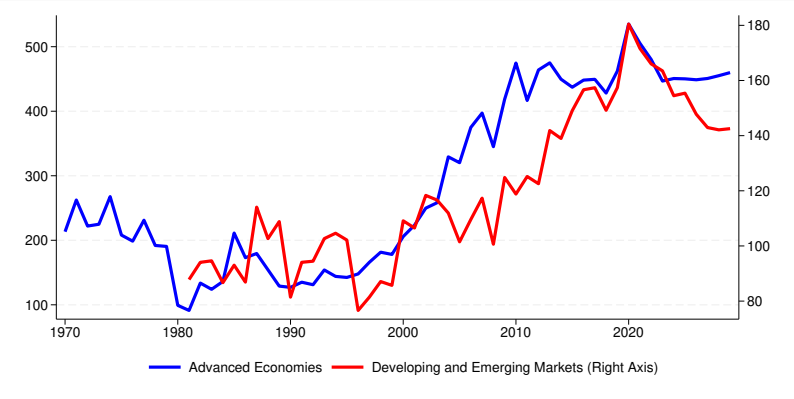
New International Trade ‘Poles’ Have Emerged



Notes: Exports network as of 2000 and 2023. The size of the nodes is proportional to their weighted degree (average of all bilateral imports and exports). The thickness of the arrows is proportional to the magnitude of bilateral exports. Three communities of nodes are detected and presented in different colors.
Source: IMF External Sector Report 2025. See also Miranda-Aggripino et al (2020).

Financial Integration

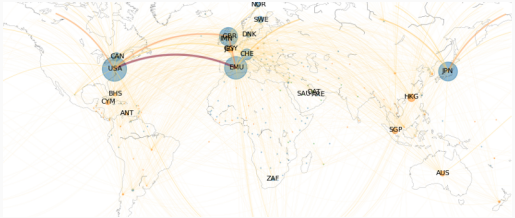
Figure 3: Financial Openness



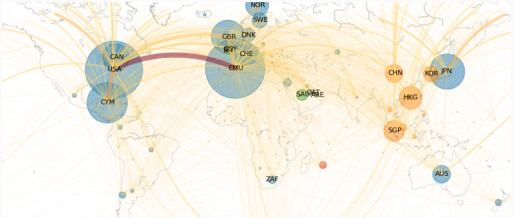
Notes: The graph shows the median of external assets plus external liabilities as a percentage of GDP for advanced economies and for emerging and developing countries. *Source:* International Financial Statistics, IMF.

Financial Integration

2001 Portfolio Investment Network



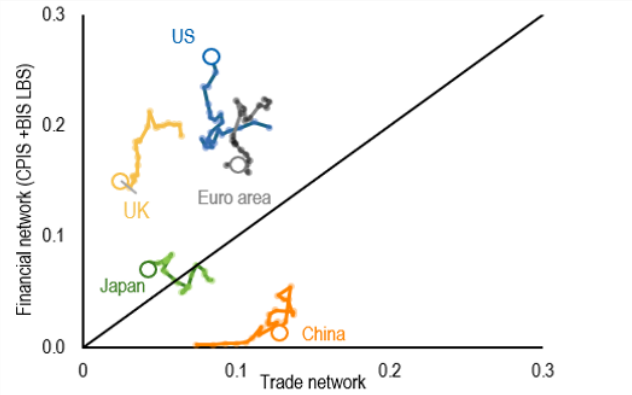
2023 Portfolio Investment Network



Notes: Portfolio investments network as of 2001 and 2023 (based on official IMF CPIS statistics). The size of nodes is proportional to their weighted degree (average of all bilateral assets and liabilities). The thickness of arrows is proportional to the magnitude of bilateral portfolio assets. Three communities of nodes are detected and presented in different colors.
Source: IMF External Sector Report, 2025. See also Miranda-Aggripino et al (2020).

Growing Imbalance between Trade and Finance Networks

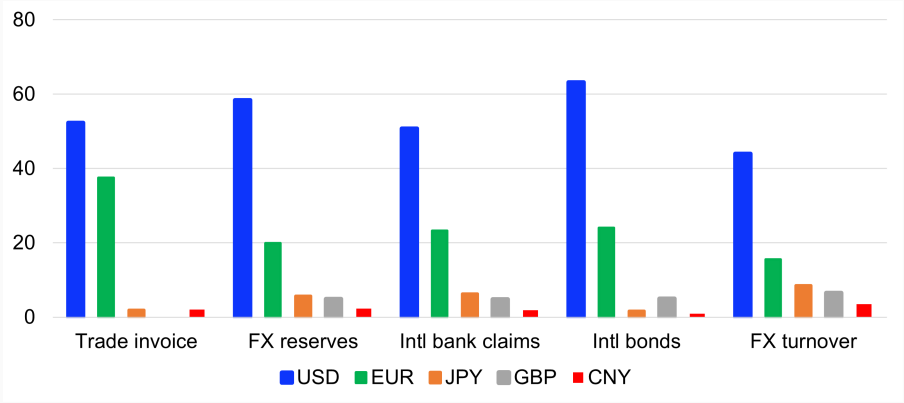
Country Centrality in Trade and Financial Networks over 2001-2024



Notes. Measured by eigenvector centrality. Each dot represents annual value of the centrality measure of a country in trade and financial network. Eigenvector centrality measures the importance of the node give its size, number of connections, and importance of connections. *Source:* IMF External Sector Report, 2026.

Continued Dominance of the US dollar

Figure 5: Currency share in percent of total

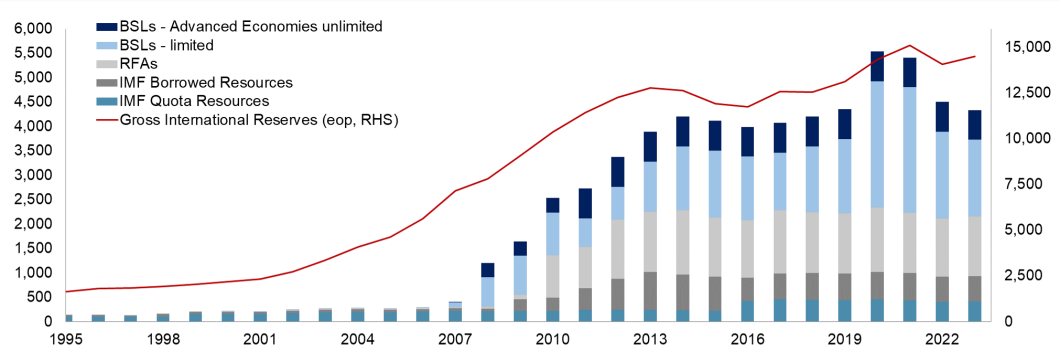


Notes. Data at end of 2023. *Source:* IMF Staff calculations.

Global Financial Safety Net

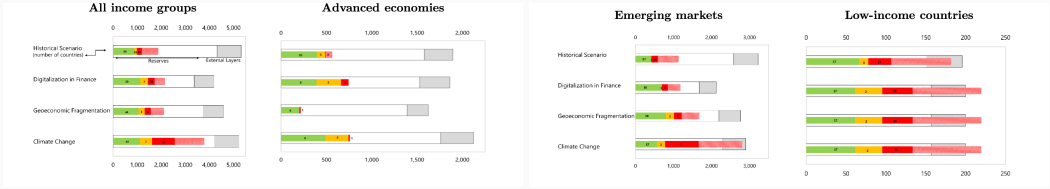
The Composition of the Global Financial Safety Net

Figure 6: GFSN Size and Composition (USD billions)



Notes. Data for BSAs includes swap lines with explicit limits; unlimited swaps are based on past usage or peers' maximum drawings. RFAs reflect lending capacity, committed resources, or estimates based on access limits and paid-in capital. IMF data corresponds to lending capacity (quota and borrowing for FTP countries, less prudential balances). Two-way arrangements are counted once.
Sources: Central bank websites; RFA reports; IMF staff estimates.

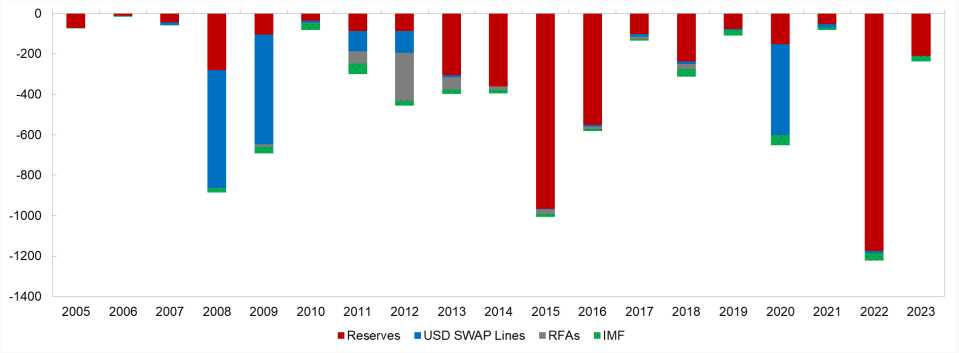
Figure 7: Scenario Analysis: Demand and Available Supply Country-Level View (USD billions)



Notes The bars decompose stressed financing needs into four categories: countries that can cover needs using reserves only; countries that need both reserves and external layers to meet needs; countries with insufficient coverage for the portion met by the GFSN; and countries with insufficient coverage for the portion not met by the GFSN. Amounts exclude the external financing needs of reserve issuers, although spillovers from those economies are embedded in the simulation. *Sources:* The Global Financial Safety Net—A Stocktaking. IMF 2025.

How Was the GFSN Deployed During Crises?

Figure 8: GFSN Usage (USD billions)



Notes. *Sources:* Central bank websites; RFA reports; IMF staff estimates.

World Banker vs Unstable System

World Banker vs. Unstable System? An old debate but renewed urgency

Charlie Kindleberger



Robert Triffin



Kindleberger View: Exorbitant Privilege and Exorbitant Duty

	Crisis	Non-crisis	Total (2005-2022)
Equity claims	1.2	12.4	7.4
Equity liabilities	6.6	13.2	10.3
Bond claims	3.9	4.0	3.9
High-grade sovereign	1.8	2.2	2.0
Other	5.7	5.6	5.6
Bond liabilities	3.2	3.1	3.2
Treasury/agency	3.9	2.3	3.0
Corporate	2.5	4.6	3.7
Total claims	1.6	10.2	6.4
Total liabilities	4.7	6.8	5.9
Total differential	-3.1	3.3	**0.5**
Composition	0.0	3.5	1.9
Return	-3.1	-0.2	-1.4
Exchange rate contributions			
Total claims	-0.6	-0.7	-0.7
Equity claims	-0.6	-0.9	-0.8
Bond claims	-0.3	-0.4	-0.3
Total liabilities	0.0	0.0	0.0
Bond liabilities	0.0	0.0	0.0

Notes: From Bertaut, Curcuru, Faia & Gourinchas (2024). Security-level nominal dollar returns constructed using the Federal Reserve's TIC survey data. Crisis periods include the global financial crisis (2008-2009), the European sovereign debt crisis (2010-2012), and the pandemic (2020-2022).

Exorbitant Privilege and the Dollar

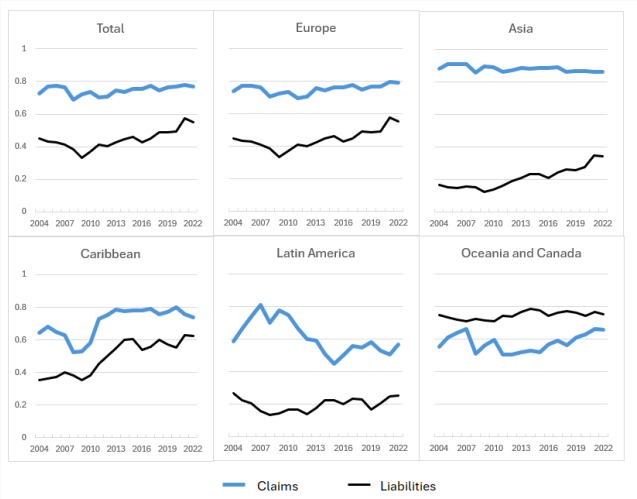
A back-of-the-envelope calculation

- Unconditional excess return $0.5 - 1\%$ (depending on sample period, estimation method, total vs. portfolio see Gourinchas, Rey & Andreolli 2025)
- U.S. external position as of 2024Q4: $-\$24.7$ trillion (83% of GDP) – $\$31.9$ trillion (107%) gross external assets and $\$56.6$ trillion (190%) gross external liabilities
- Without excess return, NIIP would have deteriorated by an extra $0.75 - 1.5\%$ of annual GDP
- Given a 0.12 elasticity of the trade balance to the REER, real appreciation approx. between $6.2 - 12.4\%$, *all things equal*

Of course, a positive excess return does not imply the US must run trade deficits!

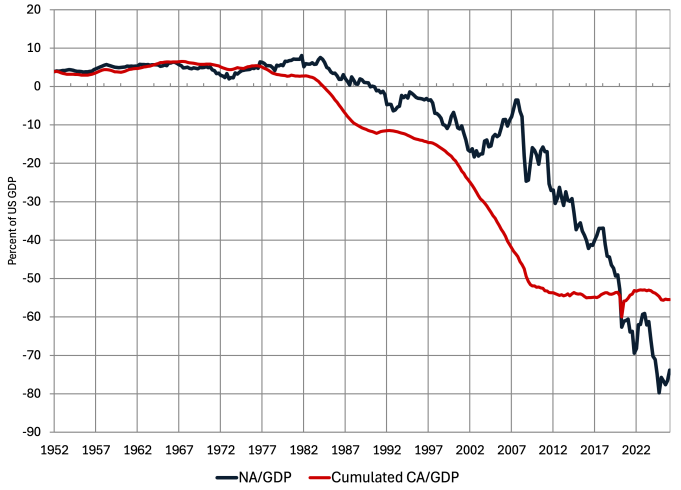
Composition effect still here, but weaker. Bertaut et al (2024)

Figure 9: Equity Share in US External Portfolio Claims and Liabilities



Cumulated Valuation Effect Has Disappeared.

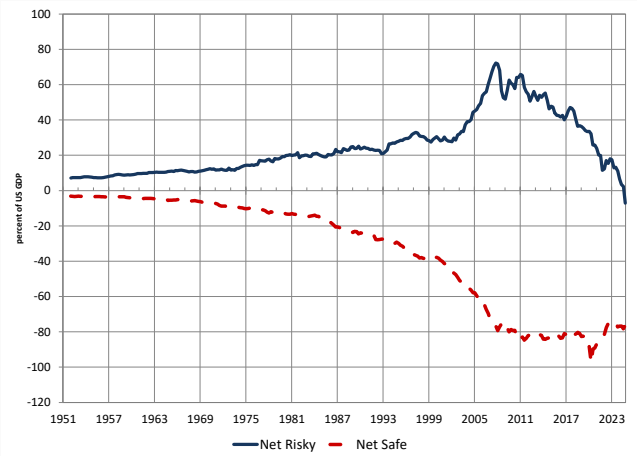
Figure 10: US net IIP and cumulated current account, 1952Q1–2026Q1 (% of GDP)



Notes. Difference between NA/GDP and Cumulated CA/GDP represents cumulated Valuation Effects/GDP. *Source:* BEA, Federal Reserve, FRED and author's calculations.

The US is now mostly a (Safe?) Borrower

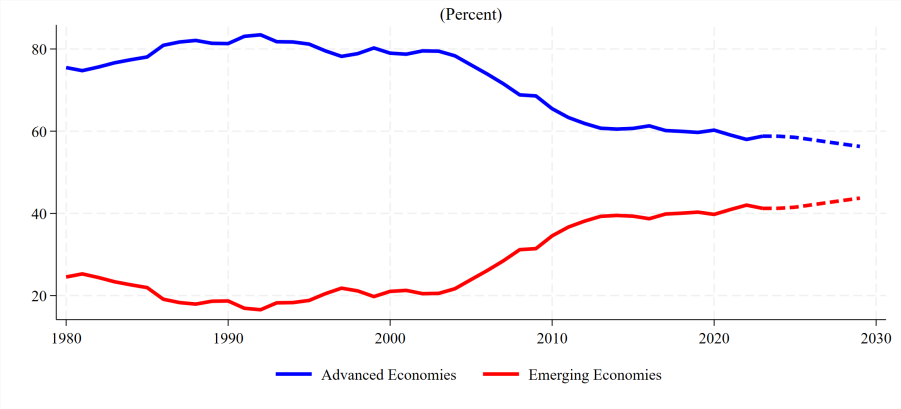
Figure 11: US External Net Risky and Net Safe 1952–2024 (% of GDP)



Notes. Net Risky: Total external assets minus portfolio equity and direct investment liabilities. Net Safe: Portfolio debt and other liabilities *Source:* BEA, Federal Reserve, FRED and author's calculations.

What About Triffin's View?

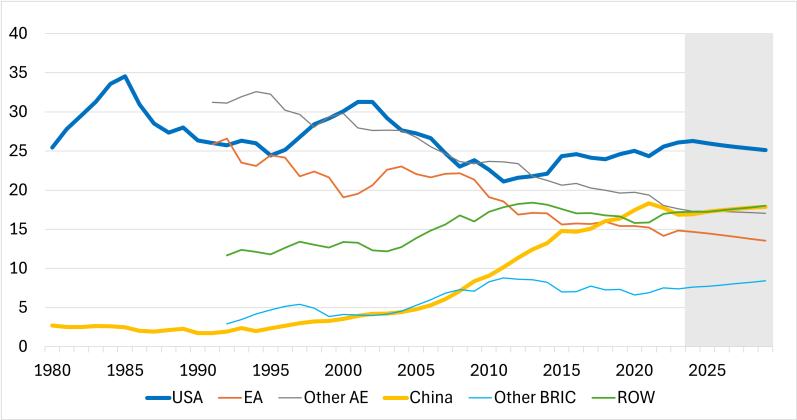
Figure 12: Advanced Economies are Becoming a Smaller Share of World GDP



Notes. *Source:* World Economic Outlook, IMF.

But the US is Not Becoming Smaller

Figure 13: Share of World GDP (percent)



Notes. *Source:* World Economic Outlook, IMF.

Kindleberger vs Triffin view

- **Kindleberger**: the system can be asymmetric yet stable. US provides financial intermediation/insurance and earns corresponding rents. (Caballero et al 2008, Mendoza et al 2009). But US NIIP is not stable

- **Triffin**: the system is unstable as US relative size falls. Eventually, US fiscal capacity insufficient to backstop the supply of safe assets. Triffin dilemma (Farhi, Gourinchas & Rey 2011, Farhi & Maggiori, 2018). But US is not becoming smaller.

- How to reconcile?
  - More global crises? (peso problem) Not permanent
  - US as wealth generator: (a) Asymmetric increase in rents (Atkeson, Heathcote and Perri 2025); (b) innovation generator (Tech, AI...). Not permanent?
  - End of US exceptionalism ?

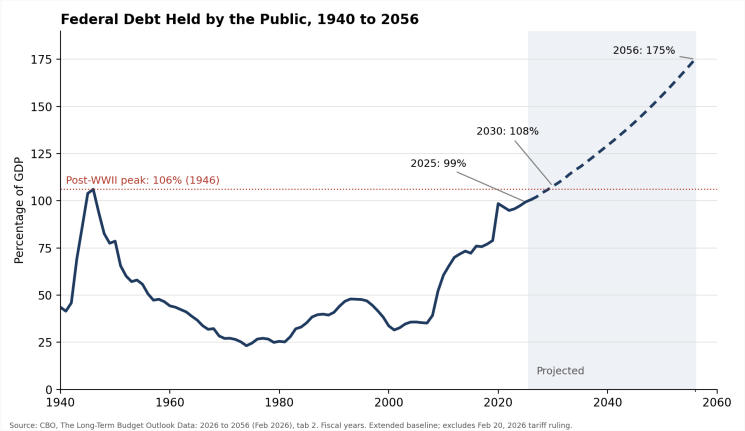
New Challenges

New Challenges

- Living in an era of high public debt
- Geoeconomic Fragmentation
- Risks from New Technologies (Digital, AI)

1. Rise in public debt...

US Federal Debt Held by the Public
(percentage of GDP)

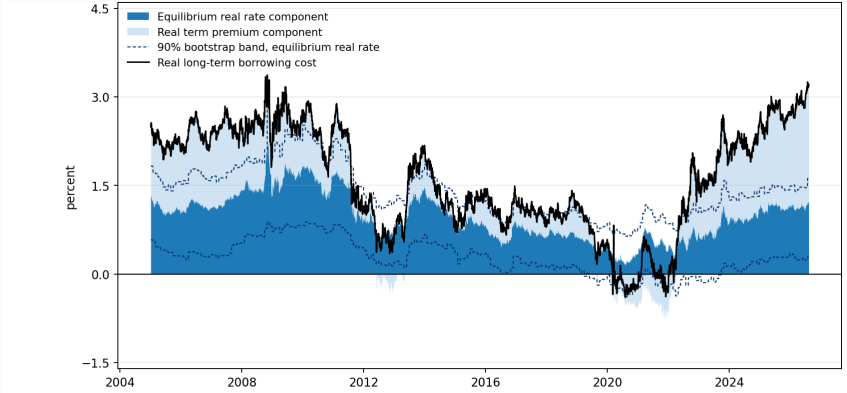


Notes. *Source:* CBO 2026

... and Rising Borrowing Costs, Driven by Rising Real Rate Term Premia

Long-term borrowing cost drivers

(percent)



Real interest rate expected to prevail over a ten-year period starting five years from now (5y-15y real forward, GSW TIPS curve).
Model: Abrahams, Adrian, Crump, Moench & Yu (2016), six pricing factors, estimated monthly 1999:01–2026:07 with the P-measure VAR anchored on SPF 10-year CPI and 3-month-bill forecasts; loadings applied to daily factors. Last observation 14 August 2026.
Sources: Gürkaynak-Sack-Wright (FEDS 2006-28, 2008-05); BLS; NY Fed FR2004; Philadelphia Fed SPF; author's calculations.

2. Ongoing Geoeconomic Fragmentation

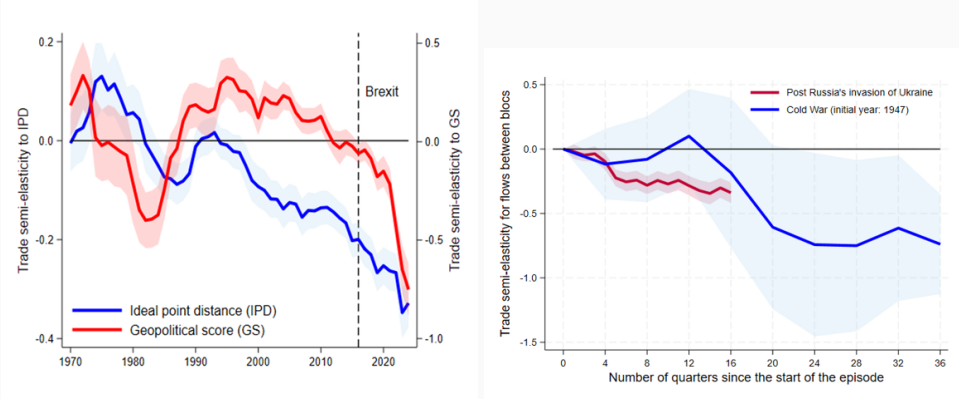


Figure 14: Increasing role of geopolitical factors and decline of trade between blocs

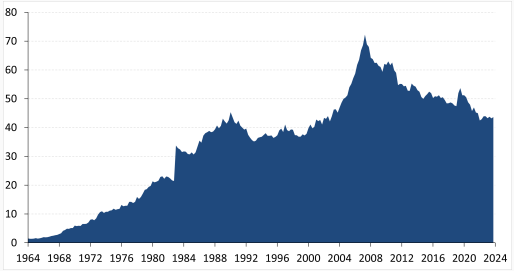
Note: The left chart plots the coefficients of the ideal point distance (IPD, in blue, from Bailey et al., 2017) and of the geopolitical alignment score (GS, in red, from Fan 2026), estimated separately in a gravity model where bilateral goods imports are regressed against the IPD or the GS interacted with yearly dummies, destination x year, origin x year and destination x origin fixed effects. The shaded area represents the 90 percent confidence band. Standard errors are clustered at the origin-destination level. The right chart plots 90 percent confidence bands, with semi-elasticities estimated with PPML and a fully saturated gravity model as in equation 1 of Gopinath et al. (2024). The missing category is trade within blocs. The Cold War bloc definition is based on Gokmen (2017), while the current bloc definition is based on the Ideal Point Distance (a measure based on voting pattern in the United Nation General Assembly computed by Bailey et al. 2017). Source: Cui et al (2026).

3. Digital Innovation. Stablecoins and Financial Stability Risks

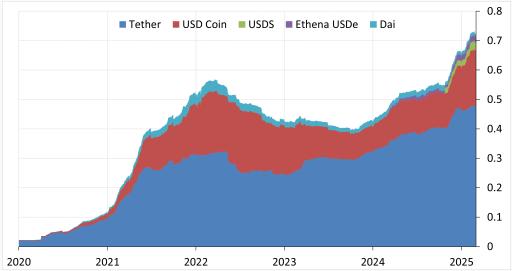
- USD stablecoins allow US and non-US residents access to dollar instrument. Similar to eurodollar deposits for non-US residents.
- Like eurodollar deposits, USD stablecoins are claims on 'onshore' (regulated) dollars. Unlike eurodollar, they do not pay interest (yet)
- They can perform many of the functions of USD as international currency (means of payment, store of value, unit of account)
- Like eurodollar deposits, problems arise in case of maturity/liquidity mismatch, especially if USD stablecoins claim to 'back the buck'. Need for a backstop?
- Unlike eurodollar deposits, they do not travel through the banking system, hence evading sanctions & reporting requirements (AML/CFT)
- Because of potentially wider retail adoption, they can increase dollarization and the risk of currency substitution – impairing the transmission of monetary policy

Eurodollar Markets and Stable Coins

Dollar liabilities held by Non-US banks outside US
(percent, share of US GDP)



Market capitalization of top 5 USD stablecoins
(percent, share of US GDP)



Sources: BIS Annual Reports, Locational Banking Statistics, CoinGecko, FRED

Strengthening the Architecture.
Some thoughts based on 'Upgrading the Global Financial Safety Net: Implications of a Synthetic Reserve Deposit, IMFWP/26/125

Reliance on FX Reserves: Too Little or Too Much?

- FX reserves are the first and main line of defense. But costly (quasi-fiscal cost). Many countries with little or insufficient reserve holdings. Too little reserve holdings.

- Reserve accumulation may be individually optimal yet globally inefficient.
  Too much global demand for reserves:
  - Global precautionary externality and Paradox of Global Thrift (at the Zero Lower Bound) (Fornaro and Romei, 2019);
  - Global borrowing externality: reserve accumulation encourages NFC to increase dollar borrowing (mismatch) (Das et al. 2023);
  - Global financial resource curse: demand for US safe assets shrinks the US tradable sector, reducing global innovation (Benigno et al. 2025)
  - Low real rates can fuel global financial instability (Mendoza & Quadrini 2024)

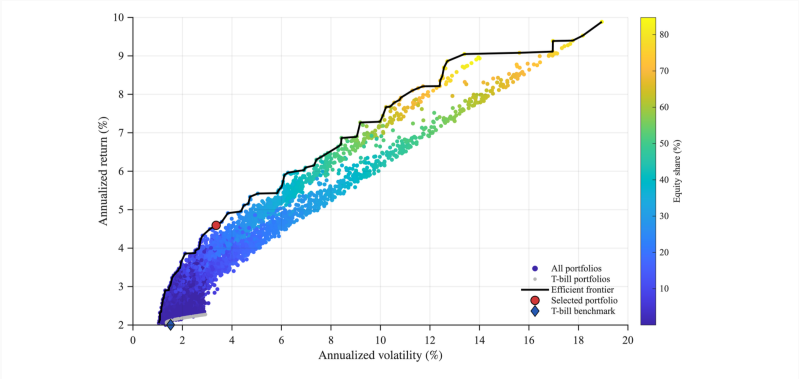
Reliance on FX Reserves: Too Little or Too Much?

- Address the global externality: Pigouvian tax on reserve holdings, or offer substitute (IMF conditional lending, precautionary facilities). Limited uptake
  - Conditionality, stigma...
  - Deeper distortion. Countries may have an excessive appetite for external debt, can harm growth. Relaxing borrowing conditions can be welfare reducing. Aguiar's Mundell-Fleming lecture 2023.

- Alternative: Increasing the supply of global (safe) reserve assets.
  - Elastic supply meets growing demand from EMDEs
  - Reduces global externalities
  - Reduces concentration risk

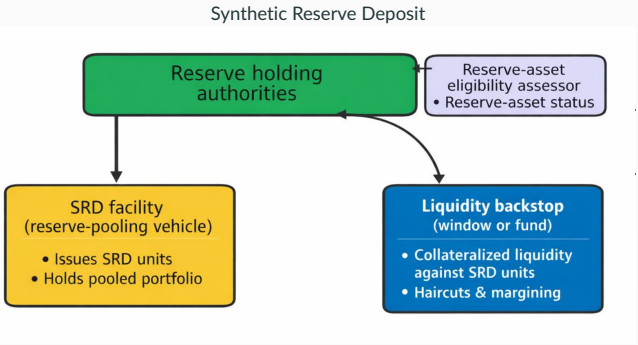
Reliance on Reserves is Costly and Inefficient

Figure 16: Reserve portfolios are far from the efficient frontier



Notes. The figure reports the opportunity set generated by simulated portfolios using annualized returns and volatilities computed from monthly returns. Each point corresponds to a feasible portfolio, with colors indicating the equity share. The solid line represents the efficient frontier. The benchmark portfolio and the T-bill benchmark are highlighted *Sources:* Dell'Ariccia et al (2026).

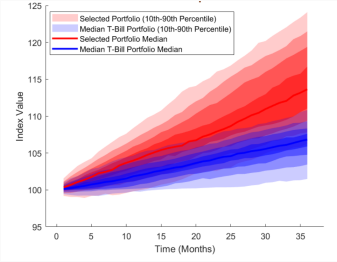
Manufacturing Safe Assets: A Synthetic Reserve Deposit (SRD)



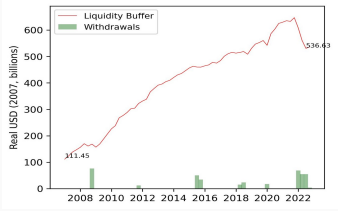
- Participating Central Banks deposit into the SRD facility; these deposits, after certification, are considered reserves
- Withdrawals return funds directly to Central Banks, at market value
- Two benefits over investing alone:
  - Pooling reduces transaction costs and guarantees anonymity of withdrawals
  - Collateralized loans improve liquidity of portfolio

How Robust is the SRD? Illustrative Scenarios

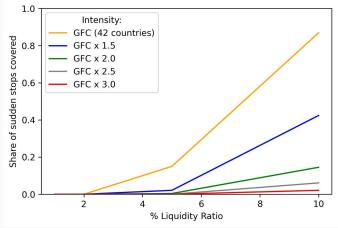
Simulated Returns



10% liquidity buffer in sample



Handle Massive Sudden Stops



Notes. Left: The left chart shows a fan chart of the simulated indices for a selected portfolio and the median T-Bill portfolio. The portfolio was selected based on three criteria: 1) it must have a VaR (Value at Risk) greater than the median VaR of the simulated T-Bill portfolios, 2) it must have the highest expected return among the portfolios that meet the first condition, and 3) the weight of the first asset in the portfolio (T-Bill 1-3 years) must always be 10%, and the weight of stocks-related assets must be 20%. The fan chart represents the simulated index trajectories of both portfolios, with shaded areas indicating the 10th to 90th percentiles of the simulations. The sample used is from 2003 to 2024 (in-sample) . Middle: in-sample simulation of reserves deposits and withdrawals for sample of participating countries post 2007. Green bars indicate net reserve withdrawals. Right: 10% liquidity buffer sufficient to cover shocks up to 3x GFC, assuming all net funding would be financed from SRD. *Sources:* Dell'Ariccia et al (2026).

Is the SRD a Safe Asset? Yes

A safe asset must be a good hedge in bad states of the world

Asset j with return r_t^j is safe if (Brunnermeier et al, 2024).

$$Cov_t[d\xi_t/\xi_t, dr_t^j - dr_t^n] > 0$$

where $d\xi_t/\xi_t$ is the SDF and dr_t^n is the return on net worth.

A combination of bond and diversified equity $dr_t^s = \alpha dr_t^B + (1-\alpha)dr_t^{\tilde{E}}$ is safe, provided that

$$\alpha > \frac{(\sigma_t^{q,K})^2}{(1-\vartheta_t)(\tilde{\chi}\tilde{\sigma}_t)^2 + (\sigma_t^{q,K})^2} > 0$$

Synthetic Reserve Deposit (SRD)



Notes. *Sources:* Dell'Ariccia et al (2026).

Conclusion

The IMS: Current and Future Challenges

- Trade and financial networks have diverged (specialization).
- A rapidly fragmenting geoeconomic environment could fundamentally disrupt the International Monetary System with implications for the role of the US dollar
- Need to make it easier for countries to self-insure, and eliminate negative externalities
- Can the world manufacture more (and better) safe assets? Answer is YES.