

FIN-TECH AND DIGITAL ASSETS

Geopolitics of Payment Infrastructures:

A Primer

By

Rosa & Roubini



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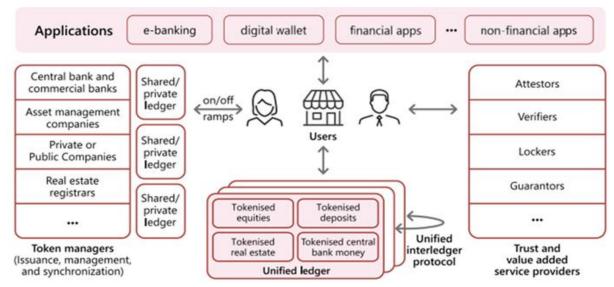
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Rosa & Roubini, Geopolitics of Payment Infrastructures: A Primer, 25 July 2025

Executive Summary

- Trade has long been a vector of geopolitical power, with geography and naval supremacy (as in the case of British Royal Navy-backed maritime routes) shaping which countries dominated global commerce.
- Britain's 19th-century naval security underpinned sterling's century as the world's reserve currency, echoing the pattern established by the shifting naval and economic strength of the European powers, crowned by the US dollar's post-WWII hegemony.
- ▶ In the current era of digital finance, payments continue to act as the lifeblood of trade, with interoperability shared features such as standards, protocols and governance enabling local payment systems to be able to combine into seamless global networks.
- Instant and real-time payment systems are redefining corridors once served almost exclusively by correspondent banking supported by SWIFT's financial messaging, which remains the enduring backbone of cross-border finance.
- Challengers are emerging to counter the dominance of SWIFT and the United States: Russia's SPFS and China's CIPS offer national messaging alternatives combined with the Chinese Belt and Road strategy and its growing dominance of global shipping.
- While India expands influence by exporting its instant payment blockbuster UPI and the Nexus hub enables wider global participation, the BRICS bloc is attempting to position its own cross-border payment system to support a broader de-dollarisation strategy.
- Major card networks (Visa, Mastercard, AmEx, Discover, etc.) and their jointly-owned EMVCo standards gatekeep trillions in commerce, embedding US and Chinese commercial influence in global payments.
- The US continues to reinforce global dollarisation, which delivers massive seigniorage, safe-haven status, and sanctions power advantages the Treasury and Federal Reserve bolster through stablecoin frameworks and regulated cryptocurrencies.
- > While India leverages UPI and the "India Stack" to expand its influence through infrastructure diplomacy, Big Tech, digital currencies and distributed ledger technologies have catalysed central banks to pursue the vision of the "Finternet".
- The rise of smart-data-driven Digital Public Infrastructure (DPI), interoperable with multi-chain FMIs served by strategic on-/off-ramps sets the scene for future competition between dollar-centric rails or the emergence of a more multipolar "Finternet".

Key Picture: The Architecture of the "Finternet"



Source: Bank for International Settlements. Note: The Finternet architecture comprises Digital Infrastructure (Identity, digital signatures, electronic registries, etc.) as governed by laws, regulations, rules and other governance norms

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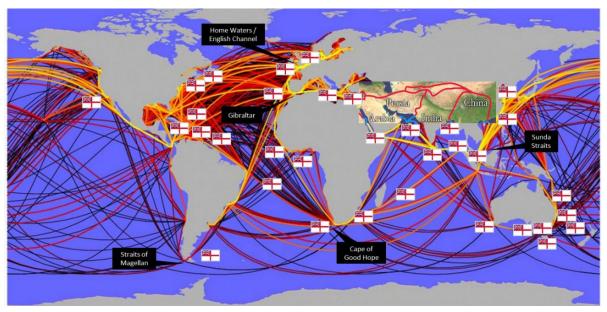
1. Introduction: Trade as a Vector of Geopolitical Power

Geographic, political, economic, and strategic factors have always influenced the power dynamics and relationships between nations and regions. Physical geography (like borders, natural resources, and access to oceans) intersects with political interests and global strategies. Control over physical territory affects global power, and countries form alliances and engage in conflicts. Energy resources, trade routes, and military bases have shaped international relations over centuries.

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The history of international trade shows the truth of this: the overland "Silk Route" from China and Europe was constrained by geography and sustained by the necessary waystations, grazing and water, as well as hubs like Chang'an, Turfan, Tashkent, Samarkand, Baghdad and Constantinople. However, the greatest international trade routes became the maritime ones, and this is where the first global trade network arose, under the protection of the interoperable security standard provided by the Royal Navy (Figure 1).

Figure 1: The First Secure and Interoperable Global Trade Network



Source: Wikimedia Commons

The Navy provided a guarantee for the safety of international trade, dominating strategic territory from the English Channel to the Pillars of Hercules, the Horn of Africa, the Suez Canal, the Cape of Good Hope, Cape Horn and the Sunda Straits. It was the security of the Navy in the wake of the Napoleonic Wars that ensured that the British imperial enterprises, like the East India Company, were victorious over their French, Dutch, Portuguese and Spanish counterparts. Key naval bases around the world enabled British warships to repair, refit, re-arm and recruit on a global basis, their flag becoming the first global trustmark and, crucially, exacting substantial economic benefits for Britain that underpinned its rise to global power.

The century-long dominance of sterling as a global reserve currency was a direct consequence, to the cost of the French, who had displaced the Dutch, who had in turn ousted the Spanish, who superseded the Portuguese, over the preceding centuries, as the naval technology of each was outperformed (**Figure 2**).

2. Payments: The Infrastructure of International Trade

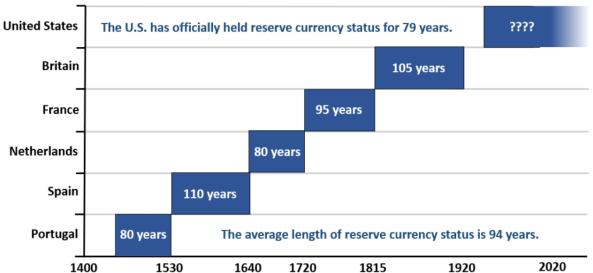
Trade, as the exchange of goods, services and resources, is at its most fundamental an exchange of value, and this exchange typically requires the transfer of money from one party to another in exchange for goods and services, or to settle a debt or obligation. Payment, properly understood, is a step in a transaction without which the cycle of trade or exchange is not complete. In the digital world, therefore payment can be viewed as a "digital twin" to all economic activity. Payments are the lifeblood of economies, and their ebbs, flows, reservoirs and restrictions provide the signals of health or sickness, strength or weakness, resilience or fragility.





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Figure 2: A 500 Year History of Global Reserve Currencies



Source: Smedley Financial Services, Inc.

Local trading systems become global through **interoperability** – the ability of different systems, devices, applications, or organisations to work together seamlessly, exchanging and using information effectively, without requiring special effort from the user. In the context of payments, this means payment systems or financial institutions can process transactions across networks or borders, from local to global. Interoperability typically requires shared standards, protocols, and governance frameworks to enable efficiency, innovation, and user freedom, while guaranteeing safety and security, with all these requirements increasing in importance with the complexity of the ecosystem.

3. Faster Payment Systems, SWIFT and Cards: The Infrastructure of Nations and Commerce

Faster payment systems, near real-time and instant, both domestic and regional, form one of the basic networks of the new geopolitics, with direct **interlinking** of those systems replacing legacy correspondent banking relationships as these systems are upgraded to deliver the targets of the G20 under the supervision of the Committee for Payment Market Infrastructures (CPMI). The borders of this network are defined by a combination of national and regional jurisdictions and the applicable legal and regulatory frameworks necessary to operate or participate in them. At the same time, the development of this network itself is shaped by individual interlinking strategies. The greatest determinant is national trading corridors: the vast majority of the UK's international trade, for instance, is with the European Union's Single European Payment Area (SEPA) and the United States. International remittance traffic is driven by global diasporas and expatriate links, such as those between the UK and both Nigeria and India.

The interlinking of faster payments systems adds resilience and complementary capability to the existing network of 11,500 financial institutions across 200 countries connected to SWIFT, founded in 1973 and typically seen as the exemplar of legacy systems¹. SWIFT is a cooperative owned by shareholders representing around 3,500 member organisation and overseen by the central banks of the G10 countries, the European Central Bank, and the National Bank of Belgium. For those seeking a more multipolar world or one that is determined more by technology than by national interests, its historic dominance of financial messaging and its association with traditional finance and Europe positions it as the incumbent to be disrupted.

National trading corridors and regional hubs like SEPA, Buna, or the Pan-African Payment and Settlement System (PAPSS) were originally formed by historical factors: political, geographical, or linguistic alignment casts a giant shadow. The Ukraine conflict revealed long-standing Russian plans in place to mitigate the effect of shutting off its access to SWIFT, standing up its own alternative System for Transfer of Financial Messages (SPFS), which





currently claims to have 24 participating countries². China has followed a similar approach, launching its Crossborder Interbank Payment System (CIPS) in 2015.

India has made particularly sophisticated geopolitical use of payments as a strategic lever, using its Universal Payments Interface (UPI) instant payments system to drive interlinking. Along with Singapore, Malaysia, Thailand, the Philippines, and Indonesia, India's founding commitment of the Nexus Global Payments³ scheme, originally developed by the BIS Innovation Hub, positioned it as a leading contender in reshaping global financial Page | 6 connectivity, designed to empower emerging economies, decentralise financial infrastructure, and foster inclusive globalisation.

India's promotion of geopolitical counterweights to the dollar is also evident in its promotion of the more politically oriented BRICS community. BRICS (Brazil, Russia, India, China, South Africa) is supplemented by Iran, Saudi Arabia, Egypt, Ethiopia, the UAE and Indonesia, representing about 49% of the world's population, 36% of territory, 39% of global GDP, and 23% of international trade⁴. A cross-border payment system has been prominently featured in discussions over recent years and was again prominently discussed at the 2025 summit⁵ under the Brazilian presidency, though details remain scarce.

Another incumbent system is also evident as a target for multipolar disruption but driven more by the politics of technological and commercial interests. This is the group of the six major global card payment networks: Visa, Mastercard, American Express, Discover (all headquartered in the United States) Japan's JCB and China UnionPay, which also benefits from Chinese state backing. One of the most significant vectors of influence for the card networks is their shared ownership of EMVCo, a global technical body that develops and manages specifications for secure, interoperable card-based payments and plays a pivotal role in shaping how payment cards, terminals, and digital wallets work together across borders and networks.

Although EMVCo is not a regulator or enforcer with a compliance mandate, its specifications have become de facto gatekeepers for much of electronic commerce as a result of its chips, contactless NFC, QR code, tokenisation and security standards, giving the card networks and particularly Visa, Mastercard and UnionPay which process 97% of all credit card transactions worldwide⁶, enormous global power and influence through their reach and commercial strength.

4. Dollarisation and its Benefits to the USA

The present global power, the United States of America, took over from Britain the role of guaranteeing the safety and security of global trade after World War II. While US air power also underpinned this global dominance, it was nonetheless naval power that remained inextricably linked to trade and led to the establishment and unchallenged hegemony of the US dollar as global reserve currency. The current US administration, no less than previous global powers, naturally seeks to maintain the global dominance of the dollar and the concomitant strategic and economic benefits.

The US earns seigniorage, which is the profit made from issuing currency. When foreign countries hold and use US dollars, especially in cash form, the US government benefits, because it issues dollars at a low cost but receives goods and services in return, with global dollar reserves acting in effect as loans to the US Treasury. Global demand for US dollars increases demand for US Treasury securities, which are considered safe and liquid. This demand helps to keep US interest rates lower, reducing the cost of borrowing for the federal government.

Dollarisation encourages foreign governments, institutions, and individuals to invest in US assets, including stocks, bonds, and real estate. This inflow of capital supports American financial markets and economic growth. During global financial turmoil, the dollar is seen as a haven, which reinforces its dominance and allows the currency-issuing state to weather economic shocks more effectively than countries with less globally entrenched currencies. The dollar's dominance in global trade, finance, and reserves gives the US significant geopolitical leverage, with the ability to impose financial sanctions, influence international lending, and shape global monetary policy through the decisions made by the Federal Reserve.





5. National and Technological Threats to the Hegemony of the Dollar

The largest threat to US hegemony at a global level is China. While still no match for the US militarily, despite its place as the second most powerful navy in the world, its global network of trade and influence is evident in terms of GDP, its share of global growth and particularly manufacturing industry and exports. While it already dominates the Indo-Pacific in terms of ship count, China's ability to project power globally, especially in contested regions like the South China Sea and around Taiwan, remains a work in progress.

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China has built a dominant and strategic position in global shipping, with influence spanning shipbuilding, port operations, logistics, and maritime trade routes, including the world's largest shipping fleet and shipyard production capacity. It has seven of the world's top 10 container ports and ownership or control of terminals that handle about 27% of global container trade⁷, providing significant leverage over international supply chains. Shipping dominance is acknowledged to be part of a broader Chinese geopolitical strategy that integrates state-driven capital, industrial policy, and geopolitical aims, notably through the Belt and Road Initiative (BRI), which links maritime infrastructure with inland logistics and digital freight platforms. It is also pursuing a strategy known as the "String of Pearls" to develop port access and logistics hubs across the Indian Ocean, Africa, and potentially Latin America.

China can therefore be fairly described as a systemic force, shaping the flow of goods, the structure of supply chains, and the balance of maritime power, and its growing dominance in both naval power and commercial shipping has profound implications for global trade resilience, including potential destabilisation. The decision to pursue its multi-pronged strategy to de-dollarize the global financial system and elevate the yuan (renminbi) as a credible alternative to the US dollar is therefore both economic and geopolitical, aimed at reducing vulnerability to US financial leverage and reshaping global monetary power.

While the European Union seeks to remain friendly relations with the US against the threat of Russia, primarily through the preservation of the NATO security alliance, its relations with China are less overtly adversarial at this stage, and the UK, in the wake of Brexit, is jockeying to preserve its treasured status as a key intermediary and its own economic power. However, the future of trade relations between the US, the EU and UK, no less than with China, India, Brazil, Russia, and other global powers, remains at an inflection point.

Competition between nations is not the only factor to be considered. Some non-state entities, such as the major American (and Chinese) technology platforms, have even reached a degree of power and economic dominance that gives them the potential to conduct their own geopolitical strategies in competition (or alliance) with state power. This quasi-national status brings with it the potential to reshape global trade – and the power that goes with it – away from traditional notions of national interest.

This possibility is evident from the shockwaves triggered by the Libra initiative, launched by Facebook (now Meta) in 2019, proposed a global digital currency backed by a basket of fiat assets, governed by a consortium of private entities. Its mission was to create a low-cost, borderless financial infrastructure that could leapfrog traditional banking systems. This proposal threatened monetary sovereignty, especially in emerging markets, bypassed central bank-controlled payment rails, and highlighted the inefficiencies and fragmentation of existing financial infrastructures. In response, central banks and regulators worldwide accelerated their exploration of CBDCs, tokenised money, and interoperable payment systems.

Sir Jon Cunliffe, formerly the Bank of England's Deputy Governor for Financial Stability, warned⁸ that Big Tech's entry into money could be a "Black Ships" moment for central banks, referencing the 1853 arrival of Commodore Perry's steam-powered US fleet off Osaka, which forced Japan to open-up and modernise after centuries of isolation. Libra and similar innovations were forcing central banks to or risk irrelevance, with the public sector's monopoly on money issuance was no longer guaranteed.

The two most powerful card networks have distinctly different strategic visions: Visa focuses on the lateral expansion of what it refers to as its "network of networks" based on open architecture and integration, while Mastercard pursues a vertical playbook, embedding itself deeper into adjacent services and bundling them with





core payments. Although both are commercially and technologically driven, the card networks of both Visa and Mastercard can also be considered as vectors of American monetary influence, being deeply integrated with US economic, regulatory, and security frameworks, and acting both as drivers of dollar hegemony and as frontline enforcers of American financial-sanctions policy while also being among the largest lobbyists in Washington on financial-services issues. Significantly, the EU views dependence on Visa and Mastercard as a direct challenge to its strategic autonomy and financial sovereignty.

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European Central Bank (ECB) leaders also argue that reliance on non-EU payment platforms exposes the bloc to coercion and undermines its ability to control critical infrastructure, weakening European strategic autonomy. Moreover, the EU is joined by regulators and central banks around the world beyond the EU in becoming increasingly concerned⁹ at the key role now played in payments by electronic wallets that are tightly integrated into Big Tech device ecosystems, especially those of Google and Apple. Device wallets of this type are now feared to be substantially impacting competition and potentially disintermediating the role of regulated entities.

The European response includes the creation of the European Payments Initiative (EPI) and its "Wero" wallet, the flagship "digital euro" CBDC project and regulatory action using tools like the Digital Markets Act and PSD2 to curb anti-competitive practices, cap fees, and foster competition in card and open-banking markets, a direct challenge to the hegemony of the dollar and the all-pervading influence of Big Tech. The modernisation of financial infrastructure must therefore go beyond questions of sovereignty: it also needs to respond to the scale and speed of private innovation.

6. The Infrastructural Challenge

It is unsurprising that US policymakers and institutions are actively working to bolster the appeal, resilience, and strategic utility of dollar-denominated assets against the challenge of credible, sovereign (or non-sovereign) alternatives. This requires maintaining the scale and depth of capital markets, investor confidence and shifts in global reserve allocations, and the key to this is the provision of modern, resilient, and flexible financial market infrastructures (FMIs) which are able to realise the benefits of digital currencies and tokenisation. Partly as a result of the Libra initiative, the Bank for International Settlements (BIS) has envisioned the reshaping of the global monetary order as the "Finternet": a network of interconnected financial ecosystems, much like the internet, where users can transact seamlessly across borders using tokenised assets and unified ledgers that integrate digital currencies, tokenised assets, and smart contracts.

"Finternet" architecture is envisaged as reducing reliance on legacy systems like correspondent banking by enabling instant, programmable, and secure settlement of money and assets, placing users rather than currencies at the centre, with potential to weakening the network effects that currently favour the US dollar through frictionless and programmable multi-currency interoperability, and dilute the structural advantages of the dollar. The future of dollarisation, however is likely to hinge on who builds and governs the next-generation FMIs, which models become dominant as a result, and whether these models are necessarily national.

The strategic pivot here is **tokenisation**: the process of representing real-world assets (money, bonds, securities) in formats that promote interoperability and programmability. For payments, this means that the messaging capabilities that underpin transactions on all FMIs, which are in transition to the vastly more flexible and rich global standard ISO 20022, will no longer need to be seen specifically as payment messages: they will become able to support transactions for any type of asset, or any type of currency, whether using traditional fiat or distributed ledger technologies.

This type of interoperability will enable programmability and communication to take place across existing retail payments infrastructures like faster payments systems, connecting to traditional bank accounts, and programmable digital wallets built on Web3 blockchain platforms.

The resulting phase shift will produce faster, cheaper, and more transparent cross-border payments. Some of the new forms of money will bypass traditional dollar-based systems, potentially eroding dollar usage in trade and finance by reducing switching costs to other currencies. While BIS-led governance frameworks are likely to





promote multipolar currency usage, if the US leads in establishing the facts on the ground, setting the norms for standards in digital trust, interoperability, and programmable finance, dollarisation could be reinforced.

However, modern FMIs, especially those built on unified ledgers, have the potential could level the playing field for other currencies, by reducing the cost and risk of using them, enhancing financial inclusion and resilience in emerging markets, reducing their dependence on dollar liquidity, or by enabling programmable monetary policy, where central banks can tailor liquidity and compliance rules in real time.

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The US also has an opportunity to reinforce dollarisation by integrating with tokenised platforms. Having ruled out a central bank digital currency (CBDC) for ideological reasons and for the foreseeable future by executive order, this integration is envisaged primarily as taking place via **stablecoins** – cryptocurrency that is designed to maintain a stable value by being pegged to a reference asset, in this case the US dollar, in order to combine the price stability of traditional money with the programmability and speed of digital assets.

Although the US administration is not relying on non-stablecoin cryptocurrencies like Bitcoin or Ethereum to directly support dollarisation in the traditional sense, it is strategically integrating them into a broader digital asset framework that could indirectly reinforce the dollar's global role. While the so-called "Strategic Bitcoin Reserve and Digital Asset Stockpile" reserves are not dollar-denominated, they provide a signal of US leadership in digital asset governance, positioning it as a custodian of digital value and reinforcing trust in US-regulated crypto markets, while also offering a hedge against de-dollarisation by maintaining influence over non-sovereign stores of value.

Recent executive orders and other announcements have eased restrictions on banks engaging in crypto custody and blockchain validation, as well as reclassifying certain digital assets (e.g. "memecoins" and "non-fungible tokens") as "collectibles" rather than securities, reducing Securities and Exchange Commission oversight and shifting regulatory authority toward the Commodities Futures Trading Commission, seen as more industry-friendly. This regulatory clarity aims to attract global crypto activity to US platforms, where dollar liquidity and settlement remain central, which identifies the crucial territory here as the "off-ramp", which integrates both dollar-backed stablecoins and cryptocurrency into the dollarisation ecosystem. Global payment rails like Visa and Mastercard are therefore racing to integrate this type of interoperability and capture the benefits.

In addition to interoperability, the US is also supporting dollar-backed stablecoins (like USDC) as the default settlement layer for crypto trading and Decentralised finance (referred to as "DeFi"), encouraging tokenised dollar instruments to circulate on public and private blockchains. This ensures that even in a multi-asset digital future, the dollar remains the unit of account and medium of exchange. The US is not trying to make Bitcoin or Ethereum tools of dollarisation, but it is ensuring that the infrastructure around them remains dollar-centric, as a hedge against monetary fragmentation, and a bid to ensure that the dollar becomes pivotal to the fundamental architecture of the Finternet.

7. Reshaping the Digital and Financial Geopolitical Landscape

The combination of global political and business strategies, in combination with the emergence of new technology and infrastructures and international initiatives focusing on interoperability, harmonisation and resilience, have begun to reshape the nature of the geopolitical landscape. A further transition is taking place with the rise of so-called "Digital Public Infrastructure" (DPI), typically understood as a set of foundational digital systems and platforms that enable the secure, inclusive, and efficient delivery of public and private services, with strong safeguards for data protection and user rights. Although both public and private sector may be involved, DPI is managed transparently and in the public interest, albeit not necessarily with exclusively public funding. It can be compared to physical infrastructure (such as roads, railways, or electricity grids), but in the digital realm—connecting people, businesses, and governments to essential services and opportunities.

Typical DPI implementation is likely to incorporate digital identity systems that allow individuals to access services via secure, verifiable IDs, such as the Nordic BankID system. These are supported by data exchange protocols that promote interoperability by allowing the secure sharing of data across institutions and systems,





for instance, Estonia's X-Road, in conjunction with digital payment platforms that provide infrastructure for fast, reliable, and inclusive financial transactions, a good example being Brazil's Pix instant payments system.

There are a variety of approaches to implementing DPI. In the UK, the "Smart Data Agenda", underpinned by the new Data (Use and Access) Act, aims at unlocking the power of data to drive innovation, competition, and economic growth, building on the success of open banking, and seeking to extend similar data-sharing frameworks across multiple sectors. India's approach, considered to be a model for DPI globally, enables financial inclusion, e-governance, and data access, and enabled by open APIs and modular architecture. The "India Stack" incorporates the Aadhaar ID system, UPI and the secure, cloud based DigiLocker platform allowing Indian citizens to store, access, and share authentic digital documents. It also constitutes a vector of geopolitical influence via initiatives such as its proposed Global Digital Public Infrastructure Repository. ¹⁰

DPI and other smart data infrastructure radically expands access points for individuals and organisations to connect to both essential services and provide a platform for innovation at massive scale. This transforms the impact of the evolution of financial infrastructure and technology platform ecosystems such as those of the Big Tech firms, creating an essentially new configuration of the geopolitical topology, against which the conflicting agendas of the finternet and de-dollarisation are set to play out. An illustrative (but far from comprehensive) diagram of this territory is shown below in **Figure 3**, from the perspective of one the basic components of traditional finance (or "TradFi"), the faster payment system.

This diagram comprises both the faster / instant payment systems "backbone", its links to the traditional financial messaging system exemplified by SWIFT and the global card-based commercial networks of the members of EMVCo, as well as global RTGS systems run by central banks. The Web3-enabled network that supports tokenised payments and assets enables the linkages to the interfaces and messaging network for securities and trade finance, as well as to global settlement systems, whereas previously this would have relied on, for instance, bridging to SWIFT. The network of digital infrastructures, both publicly owned and those of global technology platforms, enabling smart data use cases and machine-to-machine communication via worldwide device and sensor networks, including the "Internet of Things".

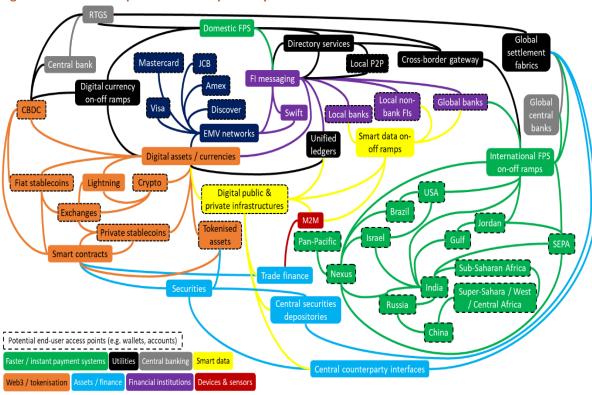


Figure 3: The New Geopolitical Landscape of Payments

Source: Author's graphics

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Access points to the global network for both individuals and organisations, via wallets, accounts, cards, applications and so forth, are available via each subsystem, conditional on compliance with the standards and regulations applicable in those environments, all of which are subject to the policies and preferences of governments and investors. Cross-system interoperability, therefore, must be seen as a crucial factor in maintaining openness, while barriers can be maintained by technological and governance means, providing strategic depth as effectively as geographic distance and impassable terrain.

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However, just as crucial straits, strategic bases, hubs for trade have dictated the necessities of geopolitics and the rise and fall of global currencies in the past, this role could now be said to be played by the "on-off ramps" that allow conversion between different forms of currencies, assets, and information and particularly between tokenised and fiat forms of money. Ramps are the enablers of funding and withdrawal, liquidity, settlement, reconciliation, reporting, and compliance. Just as sanctions and blockades were often enforced by naval means in the past, control of ramps at a national level can be characterised as an issue of sovereignty, vital to manage information and assets. Similarly, privately-owned networks can act in both private and public interest to influence – and benefit from – flows of capital and data. "Multi-chain" capability is thus not only a matter of financial system resilience and competitiveness, but of the ability to project power globally.

NOTES:

¹ https://www.swift.com/about-us/who-we-are

² https://www.middleeastmonitor.com/20250403-25-countries-join-russias-payment-system-as-an-alternative-to-swift/

³ https://www.bis.org/about/bisih/topics/fmis/nexus.htm

⁴ https://www.bcb.gov.br/en/about/brics-en

⁵ https://www.firstpost.com/explainers/brics-cross-border-payment-system-us-dollar-dedollarisation-explained-ws-e-13904234.html

⁶ Based on https://coinlaw.io/unionpay-statistics/ – although precise figures vary from source to source

⁷ https://english.ckgsb.edu.cn/knowledge/article/china-logistics-shipping-strategy-and-global-impact/

⁸ https://www.bankofengland.co.uk/speech/2023/october/jon-cunliffe-speech-at-the-economics-of-payments-xii-conference

https://www.fca.org.uk/publication/correspondence/cma-letter-2025.pdf

¹⁰ https://www.drishtiias.com/daily-updates/daily-news-analysis/role-of-upi-in-shaping-foreign-policy