

RESEARCH ARTICLE OPEN ACCESS

Geofinance and Fragmentation: Wholesale Central Bank Digital Currencies

Lucia Quaglia¹  | Amy Verdun² 

¹University of Bologna, Bologna, Italy | ²University of Victoria, Victoria, British Columbia, Canada

Correspondence: Amy Verdun (averdun@uvic.ca)

Received: 5 May 2026 | **Revised:** 16 September 2026 | **Accepted:** 16 September 2026

Keywords: central banks | digital currencies | fragmentation | geofinance | interoperability | mBridge | minilateralism | Pontes | wholesale CBDCs

ABSTRACT

Central bank digital currencies (CBDCs), especially wholesale ones, were initially hailed as tools for frictionless global financial flows. Paradoxically, however, they are contributing to the fragmentation of the international financial system through the emergence of minilateral blocs of ‘friendly’ jurisdictions that have established, or sought to establish, interoperability among their wholesale CBDCs, while remaining disconnected from rival arrangements. This outcome is difficult to reconcile with existing explanations. Indeed, international financial institutions mobilised early to promote interoperability, and much of the financial industry has favoured more integrated cross-border payment infrastructures. This paper argues that geofinance, and specifically efforts by major jurisdictions to preserve sovereignty over critical financial infrastructures and promote their currencies internationally, provides a more convincing explanation. Through an analysis of initiatives led by China (mBridge and Ensemble), Russia (BRICS Bridge), the European Union (Pontes and Appia) and the Bank for International Settlements (Agorá, in which the United States also participates), the paper shows how geopolitical and monetary rivalries are reshaping the architecture of global finance. Empirical evidence is drawn from public documents, media coverage and 28 elite interviews.

1 | Integrating Payments, Fragmenting Finance?

Digital currencies are reshaping global finance, with central banks increasingly positioning themselves as key actors in this transformation. While private digital currencies, such as stablecoins, are issued by private entities, public digital currencies, commonly referred to as central bank digital currencies (CBDCs), are issued by central banks (Prasad 2021). CBDCs take two principal forms. Retail CBDCs represent the digital equivalent of cash and are intended for use by households and firms, sometimes referred to as ‘general purpose CBDCs’ (Kosse and Mattei 2023). Wholesale CBDCs, often described as tokenised central bank reserves, are designed for use by financial institutions and large corporations in the settlement of high-value transactions. For simplicity, this paper

refers to the latter as wholesale CBDCs (wCBDCs) (see also Illes et al. 2025).

Wholesale CBDCs are widely viewed as a promising instrument for enhancing the efficiency of wholesale payment systems, both domestically and across borders. Existing cross-border payment infrastructures, particularly in the Global South and in payment corridors linking the Global North and South, are commonly characterised as costly, slow and operationally complex (Brandl and Dieterich 2023; BIS 2018). CBDCs are a potential tool for cross-border settlement (Committee on Payments and Market Infrastructures [CPMI] 2020; CPMI, BIS Innovation Hub, International Monetary Fund (IMF) and World Bank 2021). Beyond efficiency considerations, wCBDCs may also contribute to safeguarding financial stability in

This is an open access article under the terms of the [Creative Commons Attribution-NonCommercial-NoDerivs](https://creativecommons.org/licenses/by-nc-nd/4.0/) License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

© 2026 The Author(s). *Global Policy* published by Durham University and John Wiley & Sons Ltd.

Policy Implications

- International institutions remain important platforms for coordinating cross-border payments and supporting orderly global financial governance. However, while bodies such as the Bank for International Settlements (BIS), the Committee on Payments and Market Infrastructures (CPMI), and the Group of Twenty (G20) retain significant convening and agenda-setting functions, their capacity to deliver universal interoperability is limited. Rather than pursuing full harmonisation, these institutions may be better placed to promote baseline compatibility, transparency and risk-mitigation mechanisms across minilateral arrangements, with particular attention to operational resilience, cybersecurity and financial stability spillovers.
- Policymakers should not assume technical efficiency or common standards will, by themselves, produce globally interoperable wCBDCs. Expectations should therefore shift from the pursuit of universal solutions towards the management of coexistence among multiple, partially interoperable payment systems.
- The emergence of selective and regionally bounded wCBDC infrastructures raises important distributional concerns, particularly for emerging and developing economies. Financial fragmentation may increase transaction costs, reduce access to liquidity, and disadvantage jurisdictions excluded from dominant payment networks. Policymakers should therefore assess how new payment architectures affect development objectives and consider complementary arrangements to reduce the risk of marginalisation in the Global South.
- Wholesale CBDCs are unlikely to depoliticise cross-border finance and may instead reinforce existing power asymmetries. Policymakers will need to balance competing objectives, including strategic autonomy, payment efficiency and systemic integration. Decisions concerning the design and governance of wCBDCs will shape not only the future of payment systems, but also the broader architecture of global finance.

the context of rapid financial and technological innovation. Wholesale CBDCs enable on-chain financial transactions to be settled in risk-free central bank money rather than in private digital assets such as cryptocurrencies or stablecoins, which are exposed to counterparty, liquidity and governance risks (Bank for International Settlements [BIS] 2025). For wCBDCs to deliver on these objectives, however, interoperability is essential. It entails the capability to connect seamlessly with other systems to exchange data and execute transactions across borders. Achieving interoperability, in turn, presupposes a certain degree of international cooperation. In practice, cooperation has remained limited and selective, resulting in an increasingly fragmented landscape of minilateral arrangements involving only a small group of wCBDCs.

Paradoxically, wCBDCs have therefore contributed to the fragmentation of the global financial system rather than to its integration. This point has been articulated, for instance, by a senior official at the International Monetary Fund (IMF), who highlighted the risk of ‘a fragmented world, not just politically

but also ... in terms of the underlying types of payments, which ultimately... underline capital market activity and broader economic activity’ (Adrian 2023). A similar warning was voiced by a senior official at the ECB, who cautioned against the splintering of the global financial system, particularly in the realm of international payments, as some countries were ‘deliberately creating separate platforms as alternatives to existing global infrastructures’ (Cipollone 2024). Several emblematic cases illustrate this development. Prominent examples include the China-led mBridge project; the embryonic short-lived, Russia-led proposal for a BRICS-Bridge; the EU-led projects Pontes and Appia; and the BIS-led project Agorá, which involves the major Western economies, including the United States (US). While these initiatives differ in scope, functionality and institutional design, they share some common features. In addition to featuring wCBDCs as a key component, these initiatives take the form of minilateral arrangements with selective interoperability, thereby contributing to the fragmentation of global finance.

The disconnect between the apparent functional benefits of interoperability and its limited realisation is puzzling. The argument advanced in this paper locates the explanation for this outcome in geofinance, and, more specifically, in the response of major jurisdictions to the weaponisation of currency and critical financial infrastructures by the US. The growing use of financial sanctions and infrastructural leverage has prompted other major jurisdictions to promote the international use of their own currencies, or at least to diversify away from the US dollar, while simultaneously seeking to establish alternative payment rails. In this context, wCBDCs can serve as instruments to expand the sphere of influence of currencies that may rival the dollar, as well as to reduce exposure to external pressure, most notably, the threat of exclusion from the US-dominated global financial infrastructures. This argument is particularly salient in light of the recent developments involving Iran. Earlier rounds of sanctions against Iran included the disconnection of sanctioned Iranian banks from the Society for Worldwide Interbank Financial Telecommunication (SWIFT) network between 2012 and 2016, following an EU Council decision (SWIFT 2012). As SWIFT constitutes a critical component of the infrastructure underpinning global cross-border payments, this episode demonstrates how financial infrastructures can become instruments of geopolitical influence. Such experiences have strengthened incentives for some jurisdictions to pursue alternative payment rails and reduce dependence on infrastructures perceived as vulnerable to external pressure.

By advancing this argument, our paper contributes to two strands of scholarly work in international political economy. First, the analysis engages with the literature on international currency rivalry (Cohen 2011; Cohen and Benney 2014; Germain and Schwartz 2017; Helleiner 2008; McNamara 2008; Spielberger 2025) by showing how wholesale CBDCs can serve either to expand the international use of a currency or to defend its existing role. Second, our paper contributes to the literature on the weaponisation of financial market infrastructures (Bernards and Campbell-Verduyn 2019; De Goede and Westermeier 2022; Westermeier 2023; Nölke 2024). From this perspective, minilateral initiatives designed to support

selective forms of wCBDCs interoperability can be understood as strategic efforts to bypass US-centric global wholesale payment systems (Bassens and Hendrikse 2022; Donnelly et al. 2024).

The paper proceeds as follows. Building on the literature on geofinance, the next section develops the theoretical argument. The subsequent sections apply the framework to the empirical record by analysing a range of minilateral wCBDC-centred projects that illustrate the contemporary fragmentation of the global financial system. Although many CBDCs projects have been launched worldwide, the empirical analysis focuses on projects led by the major monetary and financial jurisdictions. The empirical material draws on multiple sources, including publicly available documents such as speeches by senior policymakers in national and international financial fora, a systematic review of press coverage and 28 semi-structured elite interviews with 35 individuals. The interviewees included representatives of national, international and EU institutions, private financial actors, non-governmental organisations and think tanks. Interviews typically lasted an hour and were conducted between April 2024 and October 2025. They are listed in anonymised form after the reference list. As interview evidence was not available to the same extent across all cases, triangulated evidence was carefully gathered across primary and secondary sources.¹

2 | The Geofinance of wCBDCs Interoperability

Our analysis builds on the literature on geofinance, which examines the intersection of geopolitics and finance. This body of scholarship highlights how states deploy financial instruments in pursuit of strategic objectives related to security and foreign policy (Armijo and Katada 2014; Blackwill and Harris 2016; Wang 2025). Within this literature, several contributions identify two interrelated instruments that can be weaponised for geopolitical purposes: currencies (Cohen 2011, 2018) and financial market infrastructures (Bernards and Campbell-Verduyn 2019; Drezner et al. 2021; Farrell and Newman 2019; Nölke 2024). Recent work has shown that different models of cross-border CBDC interoperability involve trade-offs between efficiency and monetary sovereignty, particularly with respect to capital flow management and institutional control (Chu and Rathbun 2025).

Despite recurrent debates over the decline of the US dollar as the leading international currency (e.g., Helleiner 2008; McNamara 2008; Norrlof 2014; Germain and Schwartz 2017; Cohen 2018; Pforr et al. 2025), the dollar continues to occupy a dominant position in the international monetary system (Bertaut et al. 2025). The settlement of dollar-denominated transactions worldwide relies on US-based financial infrastructures, regardless of the nationality of the parties involved, placing these infrastructures at the core of the global payment system (De Goede and Westermeier 2022; Westermeier et al. 2025). Moreover, cross-border payments in the Global South are largely processed through correspondent banking networks that are predominantly anchored in the US (Brandl and Dieterich 2023). By restricting access to dollar-denominated payments and US-based infrastructures, US authorities can exert substantial leverage

over both states and private actors (Demertzis 2023), for instance in the form of sanctions (Demertzis and Lipsky 2023; McDowell 2023).

Recent developments in digital finance may further reinforce this leverage (Chey 2023). In particular, increasing US support for dollar-denominated stablecoins, which constitute private digital currencies under US jurisdiction, has the potential to strengthen the role of the US. Most political economists highlight the dominance of the US along three dimensions: currency, financial system and its network. In terms of the international role of the dollar (Bessent 2025) and to encourage processes of dollarisation, defined as the use of the US dollar alongside or in place of domestic currencies (Miran 2025), scholars have pointed to the crucial role played by the US dollar. The US is also a leading player in the international financial system as the US continues to occupy a dominant position in global finance. These dynamics are particularly relevant in many emerging and developing economies (BIS 2022a, 2022b, 2025). Despite recurring predictions of the dollar's decline, the structural influence of US financial markets and institutions has endured for decades (Strange 1987; Hudson 2003; Seabrooke 2001; Kirshner 2008; Oatley 2015). Various analyses have pointed to the network that the US takes advantage of its network (Oatley et al. 2013). More recent scholarship points to growing challenges to US monetary and financial predominance, yet concludes that the US remains the central actor in the global financial system (Cohen 2018; Schwartz 2019; Eichengreen 2025).

The development of interoperable wCBDCs can be interpreted as a strategy aimed at mitigating exposure to US financial pressure. By promoting the use of currencies other than the dollar and establishing alternative payment and settlement rails, wCBDCs offer jurisdictions a means of reducing dependence on US-dominated infrastructures. Minilateral arrangements that support selective interoperability of wCBDCs among trusted partners or strategic allies enable participating jurisdictions to bypass US-centred payment systems and to settle cross-border transactions in domestic currencies or through agreed reference currencies (Interview 12: Appendix A; Sandbu 2025). The acceleration of wCBDC projects following Russia's invasion of Ukraine and the subsequent G7 sanctions response underscores the relevance of these geopolitical considerations.

We can derive a set of empirically observable expectations regarding the evolution of international cooperation in this domain, especially with respect to the emergence of minilateral initiatives in this domain. Major jurisdictions that are politically at odds with the US and highly exposed to US financial leverage, most notably, China and Russia, are expected to view interoperable wCBDCs as instruments for promoting currency diversification away from the dollar and for establishing alternative financial infrastructures beyond US oversight. These jurisdictions are therefore likely to prioritise from an early stage selective minilateral arrangements to support cross-border interoperability.

The European Union (EU) occupies a distinct position. While the EU is less likely than China or Russia to be the target of US sanctions, even in the context of strained transatlantic relations during the second Trump presidency, it has a long-standing

interest in strengthening the international role of the euro (Spielberger 2025) and in enhancing the strategic autonomy of its payment infrastructures (Quaglia and Verdun 2025; Westermeier 2024). The EU's composite institutional structure and internal currency diversity suggest that initial efforts are likely to focus on regional interoperability before extending to broader cross-border ambitions.

By contrast, the US, which benefits from the existing dollar-centred, US-dominated global financial infrastructures, can be expected to display comparatively limited interest in promoting minilateral wCBDC projects. The empirical analysis assesses the analytical leverage of these expectations by examining the principal wCBDC projects undertaken by the major jurisdictions. We also consider below some potential alternative explanations.

2.1 | Alternative Explanations

Alternative explanations drawn from the existing literature do not adequately account for the outcome of interest. To begin with, arguments emphasising the entrepreneurial role of *international organisations* (e.g., Gadinis 2015; Germain 2016; Newman and Posner 2018; Verdier 2009; Zaring 2020) would not have predicted the emergence of clusters of wCBDCs operating as so-called 'walled gardens' (Kumar et al. 2024). This is because the Bank for International Settlements (BIS), a central and well-established international body in global finance, engaged with CBDCs at an early stage. To support innovation in central banking, the BIS established the BIS Innovation Hub and a network of regional centres dedicated to exploring digital technologies and financial innovation (Hodson and Milne 2026). In its early interventions, the BIS repeatedly cautioned against a siloed approach in which jurisdictions would develop wCBDCs independently of one another (Interviews 12, 14: Appendix A). In a widely cited report published in 2020, the BIS argued that CBDCs could improve the efficiency of cross-border payments only if they were interoperable and stressed the importance of developing common international standards to achieve this objective (BIS 2020; CPMI et al. 2021). Similar concerns were expressed by the Committee on Payments and Market Infrastructures, which also emphasised the importance of interoperability and coordination in cross-border payments (e.g., CPMI, 2018; Interview 24: Appendix A). Yet despite the BIS's agenda-setting capacity, its sustained advocacy of interoperability, and parallel efforts by the CPMI, fragmented and selective approaches to wCBDC interoperability continued to emerge. The persistence of fragmentation despite the active involvement of influential international organisations suggests that international institutional leadership alone cannot account for the observed outcome.

Second, explanations rooted in the interests and structural power of the *financial industry* (e.g., Baker 2010; Pagliari and Young 2014, 2017; Porter 2014; Tsingou 2015) would not have predicted the persistence of fragmented wCBDC arrangements. Many wholesale financial transactions are cross-border in nature, and the interbank market operates on a global scale. As a result, many private financial actors stand to benefit from seamless connectivity among wCBDCs.

If interoperable, wCBDCs could operate on a continuous 24/7 basis, overcoming differences in payment-system opening hours while reducing the need for multiple compliance checks and the associated costs (Interviews 24, 26: Appendix A). Moreover, a substantial share of the financial industry has expressed support for the settlement of tokenised financial assets on-chain using risk-free central bank money, namely wCBDCs (Interviews 1, 14, 22: Appendix A). While smaller, domestically oriented firms have shown limited interest in wCBDCs, major financial institutions have actively participated in consultations, experiments and pilot projects, often advocating a broader scope and greater functionality for these arrangements (Interviews 13, 14: Appendix A). Despite this apparent alignment of interests, seamless connectivity among wCBDCs has remained elusive. The persistence of fragmentation despite support from globally active financial institutions suggests that broader geopolitical and geofinancial considerations have outweighed private-sector preferences for more integrated payment infrastructures.

Third, one could argue that the observed fragmentation simply reflects different stages of institutional development. It is true that some of the minilateral projects discussed below, most notably mBridge, are more advanced than others, such as Pontes, Appia and Agorá. However, this explanation overlooks the importance of path dependence. Achieving interoperability *ex post*, once these projects have been developed independently and according to different technical and governance arrangements, is considerably more challenging than establishing interoperability *ex ante*, at the design stage. Traditional payment systems provide a useful analogy. These systems emerged over time within individual jurisdictions and were typically developed in isolation, reflecting domestic priorities and regulatory frameworks. Subsequently, national authorities and international organisations, particularly the BIS and the CPMI, invested considerable effort in enhancing cross-border compatibility and interoperability (e.g., Di Iorio et al. 2024; Fitzgerald et al. 2025; Interviews 19, 20, 24: Appendix A). Yet these efforts demonstrate precisely how difficult interoperability becomes once separate infrastructures are already in place. Consequently, differences in project maturity cannot, by themselves, explain the emergence of fragmented wCBDC arrangements; if anything, early divergence may make subsequent interoperability more difficult to achieve.

Finally, some of the differences among projects sponsored by the US, the EU and China may reflect variation in domestic institutional structures and regulatory traditions, a factor that warrants further investigation (Hall and Soskice 2001; Jackson and Deeg 2008; Deeg and O'Sullivan 2009). Distinctive national arrangements in financial governance, state-market relations, and regulatory traditions are likely to influence how jurisdictions design and govern wholesale digital currency infrastructures. However, the empirical analysis presented in the following sections suggests that the primary rationale for establishing minilateral wCBDC arrangements among aligned jurisdictions is geofinancial rather than domestic in nature. While domestic institutions help explain the design, governance and operational characteristics of individual projects, they are less well suited to explain why interoperability has emerged selectively among particular groups of jurisdictions.

3 | China-Led mBridge Project and Hong Kong's Project Ensemble

China, which was a first mover in the development of a wCBDC (Chia and Helleiner 2024; Chia 2024; Nölke 2024), showed interest in selective cross-border interoperability from the outset (Auer et al. 2020). This orientation formed part of a broader, long-term geoeconomic strategy aimed at promoting alternatives to the US-dominated cross-border payment system (Nölke 2022; Petry 2023) and expanding the international role of the renminbi (Germain and Schwartz 2017; McNally and Gruin 2017). Chinese policymakers have repeatedly framed this strategy in explicitly geopolitical terms. For example, the Governor of the People's Bank of China, Pan (2025) warned that 'traditional cross-border payment infrastructures can be easily politicized, weaponized and used as unilateral sanction instruments.' He further cautioned against the 'excessive reliance' of the global monetary system on the US dollar, noting that when geopolitical conflicts or national security crises arise, the dominant international currency is 'easily instrumentalised and weaponised' (Pan 2025).

Chinese authorities have sought to promote the renminbi as a major international currency through the development of a wholesale digital renminbi and its cross-border interoperability. The prevailing view among Chinese policymakers has been that the internationalisation of the renminbi should be driven by usage rather than coercion (see, for instance, Mu 2022). From this perspective, efforts by the People's Bank of China to sustain and deepen cross-border payment cooperation, including through the mBridge project, have been regarded as instrumental to the gradual expansion of the renminbi's international role.

The development of a distributed ledger technology system for issuing a wCBDC went hand in hand with the establishment of a minilateral, multi-currency project, mBridge, where the 'm' refers to multiple participating currencies. Launched in 2021, the project brought together the central banks of China, Hong Kong, Thailand and the United Arab Emirates (UAE), with the Saudi Central Bank joining in 2024 (BIS 2024b). The initiative pursued a clear geoeconomic rationale, namely the creation of an alternative to US-dominated payment infrastructures to reduce China's vulnerability in cross-border payments (Peruffo et al. 2023). At the outset, this rationale was relatively understated, not least because the BIS was involved in the early stages of the project (BIS 2022c). For instance, Mu (2022), Director of the Digital Currency Institute at the People's Bank of China, argued that mBridge should 'support the healthy evolution of the international monetary system', and should not undermine currency sovereignty or the ability to fulfil their monetary and financial stability mandates.

The mBridge project was unprecedented in establishing a shared platform for wCBDCs that enabled domestic commercial banks to access the system through their respective central banks. Unlike traditional cross-border payment arrangements, which separate messaging from settlement, mBridge integrated both functions and enabled the atomic settlement of transactions (Chu et al. 2025). Consequently, participating banks no longer needed to maintain foreign correspondent

or nostro accounts in other jurisdictions. Instead, payments between banks in participating jurisdictions could be settled directly through the platform (Zhou 2024). As the system did not rely on tokenized commercial bank deposits, banks connected via standard application programming interfaces (APIs), while central banks acted as access points for domestic institutions (Interviews 19, 20: Appendix A). By the end of 2025, mBridge had reportedly processed approximately 4000 transactions worth US\$55 billion, with the digital yuan accounting for an estimated 95% of total transaction volume (Jones 2026).

Chinese authorities have exercised substantial influence over the design and evolution of the mBridge project. Hong Kong, one of the four original project participants, is a Special Administrative Region of China, while the Digital Currency Research Institute of the People's Bank of China (PBoC) has been responsible for the platform's technical development and remains heavily involved in its operation. In 2023, the blockchain architecture underpinning mBridge shifted from an existing consensus mechanism to one developed by the PBoC in collaboration with Chinese universities, known as the *Dashing Protocol* (Ledger Insights 2023). More broadly, while several components of the system initially relied on technologies supplied by Western firms, a number of these elements have gradually been replaced by domestically developed Chinese alternatives (Bilotta 2024). An open question concerns whether China will make this technology available to other jurisdictions, notably Russia, given Beijing's stated intention to open-source parts of the software. Following concerns that mBridge could be used to circumvent economic sanctions, the BIS withdrew from the project in autumn 2024 (Reuters 2024), further consolidating Chinese influence over its subsequent development.

A second China-related initiative is Project Ensemble, launched by the Hong Kong Monetary Authority (HKMA) in 2024 (HKMA 2025). Whereas mBridge is principally oriented towards cross-border payments, Project Ensemble focuses on the tokenisation of financial assets and the development of supporting market infrastructures. Hong Kong is a Special Administrative Region of the People's Republic of China under the 'One Country, Two Systems' framework, maintains a distinct monetary, financial and regulatory system (Ghai 1999). Formally, the Hong Kong Monetary Authority (HKMA) is responsible for the conduct of Hong Kong's monetary and financial policies and operates separately from the People's Bank of China (PBoC). Accordingly, initiatives led by the HKMA, such as Project Ensemble, should be distinguished from projects led by the PBoC, even though they frequently complement broader Chinese financial initiatives and often involve close cooperation between the two authorities (HKMA 2024c).

Led by the HKMA in collaboration with the BIS Innovation Hub Hong Kong Centre, project Ensemble brought together a range of stakeholders, including commercial banks, financial market infrastructures and technology firms (HKMA 2024a). Project Ensemble explored how tokenised money and tokenised assets could be issued, traded and settled within an integrated framework (HKMA 2024b). The HKMA classified the initiative as a wCBDC project insofar as it examined the interbank settlement of tokenised money using wCBDCs (HKMA 2024a). The

name of the project reflected its ambition to convene a diverse group of participants to define standards and test use cases with a view to future large-scale deployment. In 2025, the initiative was upgraded from a sandbox experiment to EnsembleTX, a platform enabling real-value transactions.

Project Ensemble was explicitly framed as part of Hong Kong's strategy to support the development of its tokenisation market by fostering interoperability across different forms of tokenised finance. By reducing frictions in trading, clearing and settlement, Hong Kong authorities sought to enhance the city's attractiveness for tokenised financial activities, thereby reinforcing its position as an international financial centre and a 'super-connector' between mainland China and global markets (Lee 2025). Acting as an early mover, Hong Kong aimed to position itself as a standard-setter and to promote its infrastructures as a default option for tokenised finance. To that end, the authorities sought to build an international network around Hong Kong-based 'rails' by engaging a wide range of stakeholders, including major global clearing houses such as Euroclear. It is also noteworthy that Project Ensemble focused on strategically significant real-economy corridors, including trade finance, supply chains and green finance, which featured prominently among the Sandbox's initial areas of experimentation.

4 | Russia-Led BRICS Bridge Project

Echoing the China-led mBridge project, Russia promoted a project labelled the 'BRICS Bridge'. While the two initiatives share similar labels, they differ substantially in scope, maturity and institutional underpinnings. At the same time, they exhibited several important common features, including a geoeconomic rationale, a minilateral format and selective membership. An important backdrop to the BRICS Bridge project was the expansion of BRICS beyond its original five members, Brazil, Russia, India, China and South Africa. Beginning in 2024, Egypt, Ethiopia, Iran and the United Arab Emirates joined the grouping, while Saudi Arabia was invited to participate and engaged with BRICS activities without fully formalising its membership. This enlargement renewed interest among several BRICS members in developing alternatives to US-dominated financial infrastructures (Roberts et al. 2018), particularly given that two members, Russia and Iran, were already subject to extensive US sanctions (Stuenkel and Treadwell 2024).

Russia, which held the BRICS rotating chair in 2024, used its chairmanship to place the BRICS Bridge Initiative on the agenda. In early 2024, the Russian Finance Minister, Anton Siluanov, signalled plans for a CBDC-based BRICS platform that would 'connect the financial systems of its participants', noting that 'technological gateways for settlements in digital currencies of central banks are already in operation', and proposing the creation of a BRICS Bridge system based on BRICS institutions (Goschenko 2024). In a similar vein, the Governor of the Central Bank of Russia, Elvira Nabiullina, argued that countries were increasingly aware of the vulnerability associated with reliance on a single global financial infrastructure, suggesting that 'some global platforms will gradually emerge', as states seek to reduce exposure to such risks (Tass 2024).

In the autumn of 2024, the Ministry of Finance, the Bank of Russia and Yakov and Partners consultancy produced a paper outlining the project, which encompassed CBDCs and a DLT system to support local currency payments. The document provided relatively few details regarding governance arrangements, implementation timelines or technical specifications. It stated that the 'payments system could be protected from external influence by putting central banks in the middle of transactions. Establishing direct links between individual countries' central banks may minimise risks.... The Bank of Russia, as the acting Chair of the BRICS Payment Task Force, has presented to the BRICS countries' central banks a proposal to explore the establishment of a common multilateral settlement platform based on modern technologies' (Ministry of Finance of the Russian Federation, Bank of Russia and Yakov and Partners 2024, 4). At the BRICS meeting in Kazan, where the document was presented, President Vladimir Putin accused Western powers of 'using the dollar as a weapon', arguing that sanctions imposed on Russia following its full-scale invasion of Ukraine undermined the trust in the dollar and weakened its international role (Clover and Mosolova 2024).

Russia's Finance Minister explained that the mechanism would see BRICS member central banks issue digital financial assets, which would in turn peg their value to the national currencies of the participating countries. Users, for example, companies involved in cross-border BRICS transactions, would be able to use this infrastructure as an alternative to traditional settlements for making payments. It was intended to provide a technological alternative to existing payment mechanisms and reduce reliance on infrastructures such as SWIFT, a central component of the global financial messaging system (Scott and Zachariadis 2013), which has become closely associated with debates on sanctions, financial statecraft and weaponized interdependence (Farrell and Newman 2019; Drezner et al. 2021; Russia's Pivot to Asia 2024).

Although the response of the other BRICS+ members to the BRICS bridge proposal remained muted (Clover and Mosolova 2024), the initiative should nevertheless be understood as part of a broader effort by BRICS members, particularly Russia and China, to promote cross-border payment arrangements less dependent on the US dollar and US-centred financial infrastructures. The 2023 Johannesburg II Declaration stated that 'We welcome the sharing of experience by BRICS members on payment infrastructures, including the interlinking of cross-border payment systems... We stress the importance of encouraging the use of local currencies in international trade and financial transactions between BRICS as well as their trading partners' (BRICS 2023; Prokopenko 2024; Stuenkel 2024). However, important asymmetries limited the initiative's traction. Whereas China had already heavily invested in CBDC development and was able to advance mBridge, Russia had made comparatively limited progress (Morozkina 2025; Prokhorov 2025; Lyu 2026, 14). As a result, the BRICS Bridge proposal failed to gain momentum and did not evolve into a concrete multilateral project. As the BIS General Manager Agustín Carstens noted, the BIS 'cannot directly support any project for the BRICS because we cannot operate with countries that are subject to sanctions' (quoted in Ledger Insights 2024).

The contrast between mBridge and BRICS Bridge provides a useful basis for assessing the conditions under which geofinancial initiatives can translate into viable payment infrastructures. Taken together, the mBridge and BRICS Bridge initiatives highlight the importance not only of geoeconomic motivations, but also of state capacity, technological preparedness and institutional credibility in shaping the trajectory of geofinance-driven wCBDC projects. While both initiatives were motivated by concerns about exposure to US-dominated payment infrastructures and by an interest in promoting alternatives to the dollar-centred system, their outcomes diverged markedly. China's mBridge project benefited from substantial prior investment in CBDC development, strong technical leadership and a relatively coherent institutional framework, allowing it to move from experimentation to operational deployment. By contrast, Russia's BRICS Bridge proposal remained largely aspirational, reflecting more limited domestic progress on CBDCs and weaker coordination among prospective partners. The comparison suggests that geoeconomic motivations alone are insufficient to sustain minilateral wCBDC initiatives; successful implementation also depends on technological maturity, institutional capacity and credible governance arrangements.

5 | The EU's Pontes and Appia Projects

Compared to China, the European Union was a second mover in the development of a wCBDC. From the outset, the EU approach prioritised regional interoperability, initially in the euro area, then across the EU, and subsequently through cooperation with non-EU European jurisdictions. Discussions on a wholesale digital euro gained momentum in 2024 and were led primarily by the central banks of the three largest EU member states of the euro area, the Bundesbank, the Banca d'Italia and the Banque de France, each of which proposed distinct design models. In 2025, the European Central Bank decided to advance work on two complementary projects that built on these proposals (ECB 2025a).

In the short term, Project Pontes, as the name suggests (*pontes* means 'bridges' in Latin), was designed to link the existing real-time gross settlement system of the euro area, Trans-European Automated Real-time Gross Settlement Express Transfer system or TARGET-2 (or T2 for short), with distributed ledger technology (DLT) market platforms on which financial assets are traded (ECB 2025b). This solution remained relatively close to the status quo, combining elements of the models proposed by the Bundesbank's and the Banca d'Italia. In the medium to long term, the ECB adopted a more ambitious approach through Project Appia, which envisages a shared public-private ledger supporting tokenised central bank money, tokenised bank deposits and tokenised financial assets (Cipollone 2025). The name Appia was chosen to convey the ECB's vision of the project as a long-term public infrastructure for connectivity, drawing on the historical symbolism of the Appia Way as a durable backbone of the Roman Empire.

The development of a wholesale digital euro gained additional momentum from shifting geoeconomic dynamics, including the emergence of China- and Russia-led initiatives discussed above, as well as policy developments during the second Trump

presidency (Interviews 14, 15, 19, 20: Appendix A). As noted by ECB Executive Board member Piero Cipollone (2024), 'China, Iran and Russia have created their own cross-border payment messaging systems, while BRICS members have started to discuss a 'bridge' platform for linking digital payments and settlement.' In the European context, renewed concerns about exposure to a heavily US-dominated financial system (Ioannou and Pérez 2023). These concerns were further amplified following President Trump's re-election in 2024 and his strong support for dollar-denominated stablecoins. European policymakers worried stablecoins would reinforce the international role of the dollar, creating new payment rails beyond the direct regulatory reach of European authorities (Schaaf 2025). Thomas Vlassopoulos, senior member of the ECB, observed, 'The rise of USD-denominated stablecoins could create new dependencies that undermine our monetary sovereignty and risk relegating the euro to a secondary player in global digital finance' (ECB 2025c).

Work on a wholesale digital euro also aligned closely with the EU's longer-standing efforts to promote the international role of the euro (e.g., Panetta 2020; Lagarde 2025; Spielberger 2025), particularly in a more fragmented and contested geoeconomic environment. In this vein, Cipollone (2024) argued that the euro's international role contributes to strategic autonomy by shielding European actors from external financial pressures (see also Lagarde 2025). While views differ regarding the extent to which a wholesale digital euro and advanced cross-border payment infrastructures can actively expand the euro's international use, several interviewees emphasised their importance in defending existing usage of the euro, both outside and within the EU (Interviews 2, 6, 16, 18: Appendix A).

In designing Projects Pontes and Appia, the ECB explicitly acknowledged the need to consider future interoperability with jurisdictions outside the EU (ECB 2023). One interviewee likened the approach to purchasing a house without immediately installing a washing machine, while ensuring that the necessary socket was in place should one be added later (Interview 24: Appendix A). At the same time, the prevailing strategy within the EU was to prioritise internal consolidation before pursuing broader international cooperation. As several interviewees put it, the objective was to 'get one's own ducks in a row' and 'to put one's house in order' first (Interviews 16, 27: Appendix A). Thus, the ECB focused initially on regional cooperation, first within the euro area, then across the EU, where multiple national currencies coexist alongside the euro (Interviews 16, 27: Appendix A; see also ECB 2023). In this context, the ECB worked closely with counterparts in the United Kingdom and Switzerland, both of which host major international financial centres. One interviewee noted that, in the prevailing geopolitical environment, geographical proximity had become more salient, as cooperation was easier 'with those at the regional level whom you know well and who share your views' (Interview 18: Appendix A). For these reasons, projects such as Pontes and Appia are unlikely, in the foreseeable future, to extend beyond Europe or the broader Western financial ecosystem.

In comparative perspective, the EU's Pontes and Appia projects illustrate a distinctive geofinance strategy that differs from both the China-led mBridge initiative and the Russia-sponsored

BRICS Bridge proposal. As in the cases of China and Russia, the EU has become increasingly attentive to the vulnerabilities associated with reliance on US-dominated financial infrastructures and to the strategic implications of digital currency developments elsewhere. In contrast to China, however, the EU has pursued wCBDC interoperability through a cautious, sequenced approach that prioritises internal consolidation and regional interoperability over the rapid creation of alternative global payment rails. At the same time, and in contrast to Russia's largely aspirational BRICS Bridge initiative, the EU's projects rest on strong institutional capacity, established payment infrastructures and a clear regulatory framework. The EU case thus underscores how geofinance-driven motivations are filtered through distinctive institutional settings, resulting in a form of selective and regionally bounded interoperability that contributes to fragmentation without constituting a direct challenge to the existing dollar-centred system.

6 | BIS-Led, Western-Centred Agorá Project

Compared to China and the EU, the US was a late mover in developing a wholesale central bank digital currency. Cross-border interoperability was not a priority for US authorities, given the dominant position of the dollar in the international monetary system and the US control over key global payment infrastructures (Interviews 12, 19, 20, 21: Appendix A; Lipsky and Kumar 2024; Flemming and Judson 2024). Until 2025, the United States neither led nor formally participated in any minilateral initiatives involving CBDCs. Behind the scenes, however, the Federal Reserve conducted exploratory work on a wCBDC, particularly once it became clear that other major jurisdictions were advancing wCBDCs and experimenting with cross-border arrangements (Interviews 13, 16, 17, 27: Appendix A). This work focused primarily on modernising the existing real-time gross settlement system through the tokenisation of central bank reserves, rather than on the creation of new cross-border payment rails (Interview 17: Appendix A).

Given the absence of a US-led initiative, this section focuses on the sole major project in which the US participated from the outset: the BIS-led project Agorá (BIS 2024a). Launched in 2025, Agorá is a public-private partnership aimed at modernising correspondent banking using a shared ledger, wCBDCs, and tokenised bank deposits to facilitate cross-border transactions. Some observers have interpreted Agorá as a Western-centred response to China's mBridge initiative and Russia's BRICS Bridge proposal (e.g., Sandbu 2025; Interview 12: Appendix A). The participating central banks included the Federal Reserve Bank of New York, the Bank of France acting on behalf of the Eurosystem, the Bank of England, the Swiss National Bank, the Bank of Japan, the Bank of Korea and the Bank of Mexico. It is worth noting that US officials were active participants in Agorá, which offered a means of engaging with wholesale digital money infrastructures despite broader political opposition to retail CBDCs in the United States (Federal Reserve Bank of New York 2024). Participation in Agorá enabled the United States to remain involved in shaping the emerging architectures for cross-border digital payments. At the same time, the project's emphasis on modernising and correspondent banking while preserving the existing two-tier monetary system was broadly consistent with

US preferences for building on established financial market infrastructures rather than replacing them (Garratt et al. 2024; Interview 20: Appendix A; BIS 2025, 2026).

Derived from the Greek word *agorá*, meaning marketplace, the project's name was intended to signal the ambition to create a shared environment in which tokenised wholesale central bank money and tokenised commercial bank deposits could interact on a common programmable platform or a unified ledger (BIS 2024b). Project Agorá did not seek to disrupt the existing financial order. Instead, it retained the correspondent banking model while aiming to improve its efficiency by enabling atomic settlement of transactions and streamlining know-your-customer and anti-money laundering compliance processes. The design rested on a two-tier structure in which central banks would issue wholesale CBDCs, while commercial banks would continue to perform their traditional role as deposit-taking institutions. As one interviewee explained, Agorá represents the 'next generation correspondent banking', remaining fundamentally grounded in private sector money, with tokenised deposits issued by commercial banks and the central banks retaining their established settlement function (Interviews 18–20: Appendix A). The project also involved approximately 40 private financial actors, coordinated by the Institute of International Finance (2024) (BIS 2026). Thirty-five were commercial banks, with the remainder comprising credit card companies and selected financial market infrastructures. Agorá represented an effort by incumbent financial institutions, including banks and market infrastructures, to secure a central role in the evolving landscape of digital finance and tokenised ecosystem.

Agorá was the first wCBDC-related initiative to bring together all major Western central banks within a single project. While potentially scalable over time, participation in the project is expected to remain selective, particularly regarding its governance. Because Agorá relies on a shared infrastructure, it requires multilateral governance arrangements and a high degree of trust among participants. Project leaders, therefore, emphasised the importance of working with jurisdictions that are regarded as like-minded (Interviews 18, 19, 25: Appendix A).

In a comparative perspective, Project Agorá completes the picture of geofinance-driven wCBDC interoperability by illustrating a system-preserving response from incumbent powers within the dollar-centred financial order. Whereas China's mBridge initiative seeks to build alternative payment rails beyond US control, and Russia's BRICS Bridge proposal reflects an attempt to do so under far more constrained conditions, Agorá is explicitly oriented towards modernising existing correspondent banking infrastructures rather than replacing them. The EU occupies an intermediate position, pursuing regional and selectively outward-looking interoperability to enhance strategic autonomy without directly challenging the prevailing system. Taken together, the four cases demonstrate that wCBDC interoperability initiatives are shaped less by efficiency considerations, technocratic cooperation fostered by international institutions or business-led interests than by divergent geofinancial strategies of the main jurisdictions, producing a fragmented landscape of minilateral arrangements with variegated participation, underlying technology, stated objectives and geofinancial rationale (see Table 1).

TABLE 1 | Comparison of multilateral cross-border wCBDC projects.

Project	Lead jurisdiction (lead organisation)	Participants	Primary objective	Geofinancial rationale	Technology	Model of interoperability	Current status (2026)
mBridge	China (People's Bank of China)	Central banks of China, Hong Kong, Thailand, and UAE	Enable direct cross-border wCBDC settlement without correspondent banking	Reduces dependence on US-centred payment infrastructure and supports RMB internationalisation	Shared DLT platform using a multi-CBDC ledger	Shared multi-CBDC platform	Pilot completed Real-world usage
Ensemble	Hong Kong (Hong Kong Monetary Authority)	HKMA, financial and technology firms	Develop tokenised financial markets and supporting wCBDC infrastructure	Reinforces Hong Kong's role as a regional financial hub and complements broader Chinese digital-finance initiatives	Permissioned DLT sandbox	Domestic tokenized-finance platform	Pilot/sandbox
BRICS Bridge	Russia (Finance Ministry)	Selected BRICS and central banks (proposed)	Create an alternative cross-border payment network	Reduces exposure to sanctions and dollar dependence	Not specified/unclear	Proposed alternative payment network	Proposal stage/ no operational platform
Project Pontes	EU (ECB and Eurosystem)	Eurosystem and EU central banks	Connecting DLT-based financial market infrastructures with central bank money	Strengthens European financial autonomy	Interoperability layer linking RTGS and DLT systems	Interoperability layer	Research/ experimentation/ launched Sept 2026
Project Appia	EU (European Central Bank/Eurosystem)	Eurosystem and EU central banks, with potential participation from non-EU jurisdictions	Interoperability-oriented project to improve cross-border wholesale payments while avoiding the creation of a single shared platform	Promotes interoperability and strengthens European cross-border payment capabilities	Interoperability framework connecting DLT-based financial platforms and central bank money infrastructure.	Interlinked systems	Design and proof-of-concept stage
Project Agorá	BIS and seven major central banks	Major advanced-economy central banks, IIF and commercial banks	Integrate tokenised commercial-bank money with wCBDC for cross-border settlement	Modernises existing international monetary infrastructure	Tokenised unified-ledger architecture	Shared ledger preserving correspondent banking	Pilot/ proof-of-concept

Note: Authors' compilation based on BIS, ECB, HKMA, BRICS and related documentary sources cited in the text.

7 | Conclusion

Wholesale central bank digital currencies have the potential either to facilitate cross-border finance or to hinder it. In principle, wCBDCs could expand payment networks, lower barriers to cross-border capital flows, and improve access to foreign financial assets. In practice, however, wCBDCs have so far tended to foster ‘walled gardens’ that reinforce fragmentation in the global financial system. This paper has explained why this outcome has emerged. Rather than being driven primarily by technocratic considerations or financial industry mobilisation, the development of wCBDCs and arrangements for their interoperability has been shaped by geofinancial strategies aimed at reducing reliance on US-dominated financial infrastructures and, in some cases, challenging the dollar’s central role in the international monetary system.

Jurisdictions that are most exposed to the weaponisation of finance by the US, most notably China and Russia, were the earliest to pursue selective forms of minilateral cooperation with trusted partners or strategic allies, or to seek to do so in the case of Russia. The EU, which faces a lower degree of exposure to US financial coercion but cannot entirely discount such risks, adopted an intermediate strategy centred on selective and regionally bounded interoperability. By contrast, the US, which benefits from and exercises influence over the existing dollar-centred system, has shown limited interest in developing wCBDCs or in promoting their cross-border interoperability, instead favouring incremental upgrades to incumbent infrastructures.

The empirical analysis has illustrated how these divergent strategies have translated into distinct institutional arrangements. The China-led mBridge project established a shared platform linking the wCBDCs of selected jurisdictions, facilitating cross-border payments and supporting the international use of the renminbi, while also reducing reliance on US-centred infrastructures. Hong Kong’s Project Ensemble evolved from a tokenisation sandbox into an operational platform processing real-value transactions, combining ambitions to position Hong Kong as a ‘super connector’ with efforts to develop domestically anchored infrastructures for tokenised finance. Although the Russia-led BRICS Bridge initiative did not develop into a sustained multilateral project, it was promoted rhetorically as an alternative to US-controlled payment infrastructures and as a vehicle for local currency settlement. The EU’s Pontes and Appia projects focused on regional interoperability, strengthening European financial infrastructures and reducing external vulnerability without directly challenging the prevailing global order. Finally, the BIS-led Agorá project sought to modernise correspondent banking through a shared ledger combining tokenised deposits and wholesale central bank money, thereby reinforcing rather than replacing the existing dollar-centred architecture. While differences in domestic institutional structures and regulatory traditions have influenced the design of individual projects, they cannot by themselves explain the selective patterns of interoperability observed across jurisdictions.

These findings carry important implications for global financial governance. First, wholesale CBDCs are not the root cause of contemporary geoeconomic tensions, but they increasingly interact with and amplify great-power rivalries

in the domain of geofinance. As a result, the global financial system is likely to evolve from a highly integrated, dollar-centric network towards a more multipolar and politically segmented architecture. This shift matters because finance remains one of the most globalised sectors of the world economy and plays a foundational role in supporting trade, investment and broader economic activity. Second, efforts to promote wCBDC interoperability through technical standard-setting or efficiency-based coordination alone are unlikely to overcome fragmentation. International institutions such as the BIS and the CPMI continue to provide important fora for dialogue and experimentation, but their capacity to foster genuine global solutions is constrained when interoperability becomes entangled with strategic competition, concerns over monetary sovereignty and infrastructural power. Third, international institutions remain essential mechanisms for coordinating cross-border finance, managing power asymmetries and fostering multilateral cooperation. If their coordinating role weakens, jurisdictions are more likely to seek alternative arrangements or create new minilateral frameworks tailored to their strategic interests. Policymakers should therefore anticipate a future in which cross-border payment systems are increasingly organised around regional and minilateral arrangements, rather than universal infrastructures. Managing this transition will require not only technical coordination but also renewed attention to the governance trade-offs between resilience, autonomy, inclusiveness and fragmentation. The future of wholesale CBDCs will therefore be shaped as much by geopolitical choices as by technological innovation.

Acknowledgements

The authors thank the reviewers of this journal for useful feedback on earlier drafts. The research for this paper has been supported by the Social Sciences and Humanities Research Council of Canada. The authors thank Max Backhaus, Xu (Abigail) Ma and Malcolm Thomson for excellent research assistance. The sequence of the names of the authors reflects an alphabetical listing of their names; they have each done 50% of the work.

AI statement: During manuscript preparation and revision, the authors used generative AI tools to improve language, clarity and style. No AI tools were used to generate data, conduct analysis or develop the paper’s substantive findings. The authors carefully reviewed all AI-assisted text and assume full responsibility for the content of the manuscript.

Funding

This work was supported by the Social Sciences and Humanities Research Council of Canada, 435-2021-0908.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

Endnotes

¹ Interview evidence is more extensive for the European and BIS-related cases than for the China/Hong Kong and Russia/BRICS

cases. This imbalance reflects differences in research access rather than differences in case importance. Given the political sensitivity of digital currency initiatives in China and Russia, as well as the practical and institutional challenges associated with conducting interviews in these contexts, the analysis relies more heavily on official publications, speeches, white papers, policy documents, project reports, and media sources. To strengthen source triangulation, the China/Hong Kong case draws on materials identified through systematic searches conducted in both English and Mandarin by a native Chinese speaker.

References

- Adrian, T. 2023. "IMF's Tobias Adrian on a Multilateral Solution to the World's Cross-Border Payment Woes." Atlantic Council, 28 November. <https://www.atlanticcouncil.org/commentary/transcript/imfs-tobias-adrian-on-a-multilateral-solution-to-the-worlds-cross-border-payment-woes>.
- Armijo, L. E., and S. N. Katada. 2014. "Theorizing the Financial Statecraft of Emerging Powers." *New Political Economy* 20, no. 1: 42–62.
- Auer, R., G. Cornelli, and J. Frost. 2020. "Rise of the Central Bank Digital Currencies: Drivers, Approaches and Technologies." BIS Working papers 880, Bank for International Settlements. <https://www.bis.org/publ/work880.htm>.
- Baker, A. 2010. "Restraining Regulatory Capture? Anglo-America, Crisis Politics and Trajectories of Change in Global Financial Governance." *International Affairs* 86, no. 3: 647–663. <https://doi.org/10.1111/j.1468-2346.2010.00903.x>.
- Bassens, D., and R. Hendrikse. 2022. "Asserting Europe's Technological Sovereignty Amid American Platform Finance: Countering Financial Sector Dependence on Big Tech." *Political Geography* 97: 1026–1048. <https://doi.org/10.1016/j.polgeo.2022.102648>.
- Bernards, N., and M. Campbell-Verduyn. 2019. "Understanding Technological Change in Global Finance Through Infrastructures." *Review of International Political Economy* 26, no. 5: 773–789. <https://doi.org/10.1080/09692290.2019.1625420>.
- Bertaut, C., B. von Beschwitz, and S. Curcuru. 2025. "The International Role of the US Dollar—2025 Edition." *FEDS Notes*. Washington: Board of Governors of the Federal Reserve System, 18 July. <https://doi.org/10.17016/2380-7172.3856>.
- Bessent, S. 2025. "Statement From U.S. Secretary of the Treasury Scott Bessent on Enactment of the GENIUS Act." United States Department of the Treasury, 18 July. <https://home.treasury.gov/news/press-releases/sb0197>.
- Bilotta, N. 2024. *The Geoeconomics of Money in the Digital Age*. Taylor & Francis. <https://doi.org/10.4324/9781003500957>.
- BIS. 2018. "Central Bank Digital Currencies." BIS CPMI Report, March. <https://www.bis.org/cpmi/publ/d174.pdf>.
- BIS. 2020. "Central Bank Digital Currencies: Foundational Principles and Core Features." BIS Report No. 1, Group of Central Banks. <https://www.bis.org/publ/othp33.pdf>.
- BIS. 2022a. "CBDCs in Emerging Market Economies." BIS Papers No. 123. <https://www.bis.org/publ/bppdf/bispap123.pdf>.
- BIS. 2022b. "Project mBridge: Connecting Economies Through CBDC." <https://www.bis.org/publ/othp59.pdf>.
- BIS. 2022c. "BIS and Four Central Banks Complete Successful Pilot of Real-Value Transactions on Cross-Border CBDC Platform." BIS Press Release, 26 October. <https://www.bis.org/press/p221026.htm>.
- BIS. 2024a. "Project Agorá: Central Banks and Banking Sector Embark On Major Project to Explore Tokenisation of Cross-Border Payments." BIS Press Release, 03 April. <https://www.bis.org/press/p240403.htm>.
- BIS. 2024b. "Project mBridge Reached Minimum Viable Product Stage." https://www.bis.org/about/bisih/topics/cbdc/mcdbc_bridge.htm.
- BIS. 2025. "The Next-Generation Monetary and Financial System." BIS Annual Economic Report, 24 June. <https://www.bis.org/publ/arpdf/ar2025e3.htm>.
- BIS. 2026. "Project Agorá: Exploring Tokenisation of Wholesale Cross-Border Payments." <https://www.bis.org/about/bisih/topics/fmis/agora.htm>.
- Blackwill, R. D., and J. M. Harris. 2016. *War by Other Means. Geoeconomics and Statecraft*. Harvard University Press. <https://doi.org/10.2307/j.ctt1c84cr7>.
- Brandl, B., and L. Dieterich. 2023. "The Exclusive Nature of Global Payments Infrastructures: The Significance of Major Banks and the Role of Tech-Driven Companies." *Review of International Political Economy* 30, no. 2: 535–557. <https://doi.org/10.1080/09692290.2021.2016470>.
- BRICS. 2023. "BRICS Summit Johannesburg II Declaration—BRICS and Africa: Partnership for Mutually Accelerated Growth, Sustainable Development and Inclusive Multilateralism." <http://www.brics.utoronto.ca/docs/230823-declaration.html>.
- Chey, H.-K. 2023. "Cryptocurrencies and the IPE of Money: An Agenda for Research." *Review of International Political Economy* 30, no. 4: 1605–1620. <https://doi.org/10.1080/09692290.2022.2109188>.
- Chia, C. 2024. "Technology and Monetary Sovereignty: Understanding Motivations for Central Bank Digital Currencies." *Competition and Change* 28, no. 5: 683–700. <https://doi.org/10.1177/10245294241257168>.
- Chia, C., and E. Helleiner. 2024. "Central Bank Digital Currencies and the Future of Monetary Sovereignty." *Finance and Space* 1, no. 1: 35–48. <https://doi.org/10.1080/2833115X.2023.2273544>.
- Chu, J., C. Fang, and K. P. Y. Lai. 2025. "Reshaping State-Finance-Tech Nexus Through Central Bank Digital Currencies: The Case of the mBridge Project." *Finance and Space* 2, no. 1: 281–304. <https://doi.org/10.1080/2833115X.2025.2539714>.
- Chu, Y., and N. S. Rathbun. 2025. "Monetary Sovereignty and Central Bank Digital Currencies: Competing Models for Future Cross-Border Payment Platforms." *Global Policy* 16: 329–340. <https://doi.org/10.1111/1758-5899.13495>.
- Cipollone, P. 2024. "Why Europe Must Safeguard Its Global Currency Status. More Reforms Are Needed if the Euro Is to Maintain and Strengthen Its Role Amid Geopolitical Shifts." *Financial Times*, 11 June. <https://www.ft.com/content/05a7755a-6213-4998-9bb7-3a5b6bd77009>.
- Cipollone, P. 2025. "Piero Cipollone, ECB, Interview, Frankfurt Digital Finance." *Connecting the European digital finance ecosystem* [Video]. YouTube, 13 February. <https://www.youtube.com/watch?v=uDYIGtIKLwA>.
- Clover, C., and D. Mosolova. 2024. "Vladimir Putin's Alternative to 'Weaponised' Dollar Fails to Excite Brics Partners." *Financial Times*, 24 October. <https://www.ft.com/content/77ddacad-2de7-4bdc-bac7-d5ec3af32781>.
- Cohen, B. 2011. *The Future of Global Currency: The Euro Versus the Dollar*. Routledge. <https://doi.org/10.4324/9780203833803>.
- Cohen, B. 2018. *Currency Statecraft: Monetary Rivalry and Geopolitical Ambition*. University of Chicago Press. <https://doi.org/10.7208/chicago/9780226587868.001.0001>.
- Cohen, B. J., and T. M. Benney. 2014. "What Does the International Currency System Really Look Like?" *Review of International Political Economy* 21, no. 5: 1017–1041. <https://www.jstor.org/stable/24673031>.
- Committee on Payments and Market Infrastructures (CPMI). 2020. "Enhancing Cross-Border Payments: Building Blocks of a Global

- Roadmap. Stage 2 Report to the G20." Basel: Bank for International Settlements, July. <https://www.bis.org/cpmi/publ/d193.pdf>.
- Committee on Payments and Market Infrastructures (CPMI) BIS Innovation Hub, International Monetary Fund (IMF) and World Bank. 2021. "Enhancing Cross-Border Payments: Building Blocks of a Global Roadmap." Stage 2 Report to the G20. Basel: Bank for International Settlements, July. <https://www.bis.org/publ/othp38.pdf>.
- De Goede, M., and C. Westermeier. 2022. "Infrastructural Geopolitics." *International Studies Quarterly* 66, no. 3: 1–12. <https://doi.org/10.1093/isq/sqac033>.
- Deeg, R., and M. O'Sullivan. 2009. "The Political Economy of Global Finance Capital." *World Politics* 61, no. 4: 731–763. <https://doi.org/10.1017/S0043887109990116>.
- Demertzis, M. 2023. "De-dollarisation." Bruegel, 25 April. <https://www.bruegel.org/comment/de-dollarisation>.
- Demertzis, M., and J. Lipsky. 2023. "The Geopolitics of Central Bank Digital Currencies." *Intereconomics: Review of European Economic Policy* 58, no. 4: 173–177. <https://doi.org/10.2478/ie-2023-0037>.
- Di Iorio, A., A. Kosse, and I. Mattei. 2024. "Embracing Diversity, Advancing Together - Results of the 2023 BIS Survey on Central Bank Digital Currencies and Crypto." BIS, BIS Paper 147.
- Donnelly, S., E. Ríos Camacho, and S. Heidebrecht. 2024. "Digital Sovereignty as Control: The Regulation of Digital Finance in the European Union." *Journal of European Public Policy* 31, no. 8: 2226–2249. <https://doi.org/10.1080/13501763.2023.2295520>.
- Drezner, D. W., H. Farrell, and A. L. Newman, eds. 2021. *The Uses and Abuses of Weaponized Interdependence*. Brookings Institution Press.
- ECB. 2023. "Focus Session (Virtual Online)." Potential use of new technology for wholesale central bank money settlement. <https://www.ecb.europa.eu/press/intro/events/html/fs20.en.html>.
- ECB. 2025a. "Eurosystem Expands Initiative to settle DLT-Based Transactions in Central Bank Money." ECB Press Release, 20 February. https://www.ecb.europa.eu/press/pr/date/2025a/html/ecb.pr250220_1~ce3286f97b.en.html.
- ECB. 2025b. "ECB Commits to Distributed Ledger Technology Settlement Plans With Dual-Track Strategy." ECB Press Release, 1 July. <https://www.ecb.europa.eu/press/pr/date/2025b/html/ecb.pr250701~f4a98dd9dc.en.html>.
- ECB. 2025c. "Making Wholesale Central Bank Money Fit for the Digital Age—Speech by Thomas Vlassopoulos." [Speech transcript], ECB, 7 November. <https://www.ecb.europa.eu/press/intro/events/shared/pdf/fs25/keynote-address-house-of-the-euro-event.pdf>.
- Eichengreen, B. 2025. "Can the Dollar Remain King of Currencies?" *Financial Times*, 22 March.
- Farrell, H., and A. L. Newman. 2019. "Weaponized Interdependence: How Global Economic Networks Shape State Coercion." *International Security* 44, no. 1: 42–79. https://doi.org/10.1162/isec_a_00351.
- Federal Reserve Bank of New York. 2024. "New York Fed to Participate in Joint International Research Effort on Tokenization and Cross-Border Payments." <https://www.newyorkfed.org/newsevents/news/financial-services-and-infrastructure/2024/20240403>.
- Fitzgerald, E., A. Illes, T. Lammer, F. Leppanen, and F. Semorile. 2025. "Moving on Up: Results of the 2024 Cross-Border Payments Monitoring Survey." CPMI Brief No 10, December. <https://www.bis.org/cpmi/publ/brief10.pdf>.
- Flemming, J., and R. Judson. 2024. "Implications of a U.S. CBDC for International Payments and the Role of the Dollar." FEDS Notes. Board of Governors of the Federal Reserve System, February 16. <https://www.federalreserve.gov/econres/notes/feds-notes/implications-of-a-u-s-cbdc-for-international-payments-and-the-role-of-the-dollar-20240216.html>.
- Gadinis, S. 2015. "Three Pathways to Global Standards: Private, Regulator, and Ministry Networks." *American Journal of International Law* 109, no. 1: 1–57. <https://doi.org/10.5305/amerjintellaw.109.1.0001>.
- Garratt, R., P. K. Wilkens, and H. S. Shin. 2024. "Next Generation Correspondent Banking."
- Germain, R., ed. 2016. *Susan Strange and the Future of Global Political Economy. Power, Control and Transformation*. Routledge. <https://doi.org/10.4324/9781315627878>.
- Germain, R., and H. M. Schwartz. 2017. "The Political Economy of Currency Internationalisation: The Case of the RMB." *Review of International Studies* 43, no. 4: 765–787. <https://doi.org/10.1017/S0260210517000109>.
- Ghai, Y. 1999. *Hong Kong's New Constitutional Order: The Resumption of Chinese Sovereignty and the Basic Law*. Hong Kong University Press.
- Goschenko, S. 2024. "Russia Hints at Development of CBDC-Based BRICS Bridge Payments System." *Bitcoin.com News*, February 27. <https://news.bitcoin.com/russia-hints-at-development-of-cbdc-based-brics-bridge-payments-system>.
- Hall, P. A., and D. Soskice, eds. 2001. *Varieties of Capitalism: The Institutional Foundation of Comparative Advantage*. Oxford University Press. <https://doi.org/10.1093/0199247757.001.0001>.
- Helleiner, E. 2008. "Political Determinants of International Currencies: What Future for the US Dollar?" *Review of International Political Economy* 15, no. 3: 354–378. <https://www.jstor.org/stable/25261974>.
- HKMA. 2024a. "HKMA Unveils Project Ensemble to Support the Development of the Hong Kong Tokenisation Market." HKMA Press Release, 07 March. <https://www.hkma.gov.hk/eng/news-and-media/press-releases/2024/03/20240307-5>.
- HKMA. 2024b. "HKMA Launches Project Ensemble Sandbox to Accelerate Adoption of Tokenisation." HKMA Press Release, 28 August. <https://www.hkma.gov.hk/eng/news-and-media/press-releases/2024/08/20240828-3>.
- HKMA. 2024c. "Expanding the Cross-Boundary e-CNY Pilot in Hong Kong." HKMA Press Release, 17 May. <https://www.hkma.gov.hk/eng/news-and-media/press-releases/2024/05/20240517-3/>.
- HKMA. 2025. "HKMA Announces The New Phase of Project Ensemble to Support Real-Value Transactions in Tokenised Deposits and Digital Assets." HKMA Press Release, 13 November. <https://www.hkma.gov.hk/eng/news-and-media/press-releases/2025/11/20251113-3/>.
- Hodson, D., and A. Milne. 2026. "The Bank for International Settlements Innovation Hub: Infrastructural Power or Innovation Theatre?" *New Political Economy*.
- Hudson, M. 2003. *Super Imperialism: The Origin and Fundamentals of U.S. World Dominance*. Pluto Press. <https://doi.org/10.2307/j.ctt18fs9ws>.
- Illes, A., A. Kosse, and P. Wierts. 2025. "Advancing in Tandem—Results of the 2024 BIS Survey on Central Bank Digital Currencies and Crypto." BIS papers No. 159, August. <https://www.bis.org/publ/bppdf/bispa159.pdf>.
- Institute of International Finance. 2024. "Project Agorá: Central Banks and Banking Sector Embark on Major Project to Explore Tokenisation of Cross-Border Payments." <https://www.iif.com/About-Us/Press/View/ID/5734/Project-Agora-central-banks-and-banking-sector-embark-on-major-project-to-explore-tokenisation-of-cross-border-payments>.
- Ioannou, D., and J. J. Pérez. 2023. "The EU's Open Strategic Autonomy From a Central Banking Perspective—Challenges to the Monetary Policy Landscape From a Changing Geopolitical Environment." ECB Occasional Paper Series No. 311, December. <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op311~5065ff588c.hr.pdf?c4795375918edb5dbf36c5d37920399c>.

- Jackson, G., and R. Deeg. 2008. "Comparing Capitalisms: Understanding Institutional Diversity and Its Implications for International Business." *Journal of International Business Studies* 39: 540–561. <https://doi.org/10.1057/palgrave.jibs.8400375>.
- Jones, M. 2026. "China-Led Cross-Border Digital Currency Platform Sees Surge." Reuters, January 16. <https://www.reuters.com/world/asia-pacific/china-led-cross-border-digital-currency-platform-sees-surge-2026-01-16/>.
- Kirshner, J. 2008. "Dollar Primacy and American Power: What's at Stake?" *Review of International Political Economy* 15, no. 3: 418–438. <https://doi.org/10.1080/09692290801928798>.
- Kosse, A., and I. Mattei. 2023. "Making headway—Results of the 2022 BIS Survey on Central Bank Digital Currencies and Crypto." BIS Papers No. 136, July. <https://www.bis.org/publ/bppdf/bispap136.pdf>.
- Kumar, A., A. Chhangani, J. Lassiter, and K. Haar. 2024. "Standards and Interoperability: The Future of the Global Financial System." Atlantic Council Issue Brief, April 10. <https://www.atlanticcouncil.org/in-depth-research-reports/issue-brief/standards-and-interoperability-the-future-of-the-global-financial-system/>.
- Lagarde, C. 2025. "This Is Europe's 'Global Euro' Moment." *Financial Times*, 16 June. <https://www.ft.com/content/4d5dea18-bc4b-4ccf-94d3-1973fd1467cc>.
- Ledger Insights. 2023. "mBridge Cross Border CBDC: Switches to New Chinese Blockchain Consensus Protocol." <https://www.ledgerinsights.com/mbridge-cross-border-cbdc-china-blockchain-consensus-protocol>.
- Ledger Insights. 2024. "BIS Debates Ending Cross Border CBDC Project mBridge—Report." 29 October. <https://www.ledgerinsights.com/bis-debates-ending-cross-border-cbdc-project-mbridge-report/>.
- Lee, J. 2025. "Speech by CE at Partnering for Success—Hong Kong as a 'Super Connector' and 'Super Value-adder' High-level Business Luncheon in Kuwait." [Speech transcript], The Government of the Hong Kong Special Administrative Region, 14 May. <https://www.info.gov.hk/gia/general/202505/14/P2025051400630.htm>.
- Lipsky, J., and A. Kumar. 2024. "The Fed Is Falling Behind as Other Central Banks Leap Ahead on Digital Currencies." *New Atlanticist*, 25 January. <https://www.atlanticcouncil.org/blogs/new-atlanticist/the-fed-is-falling-behind-as-other-central-banks-leap-ahead-on-digital-currencies>.
- Lyu, Y. 2026. "Innovating the Global Payment System Through 'Greater BRICS Cooperation'." *Asian Review of Political Economy* 5, no. 7: 7. <https://doi.org/10.1007/s44216-026-00075-x>.
- McDowell, D. 2023. *Bucking the Buck: US Financial Sanctions and the International Backlash Against the Dollar*. Oxford University Press. <https://doi.org/10.1093/oso/9780197679876.001.0001>.
- McNally, C. A., and J. Gruin. 2017. "A Novel Pathway to Power? Contestation and Adaptation in China's Internationalization of the RMB." *Review of International Political Economy* 24, no. 4: 599–628. <https://doi.org/10.1080/09692290.2017.1319400>.
- McNamara, K. R. 2008. "A Rivalry in the Making? The Euro and International Monetary Power." *Review of International Political Economy* 15, no. 3: 439–459. <https://www.jstor.org/stable/25261978>.
- Ministry of Finance of the Russian Federation, Bank of Russia, and Yakov and Partners. 2024. "Improvement of the International Monetary and Financial System." <https://yakovpartners.com/publications/imfs>.
- Miran, S. I. 2025. "A Global Stablecoin Glut: Implications for Monetary Policy—Speech at the BCVC Summit 2025." *Harvard Club of New York City* [Speech transcript]. Board of Governors of the Federal Reserve, 07 November. <https://www.federalreserve.gov/newsevents/speech/miran20251107a.htm>.
- Morozkina, A. 2025. "Develop or Else: BRICS Cooperation in International Finance." BRICS Expert Council Russia, 18 August. <https://bricscouncil.ru/en/analytics/razvivat-nelzya-otlozhit-sotrudnichestvo-briks-v-oblasti-mezhdunarodnyh-finansov.p>.
- Mu, C. 2022. "Mu Changchun: Theories and Practice of Exploring China's e-CNY." PBoC, 29 December. <https://www.pbc.gov.cn/en/3935690/3935759/4749192/2022122913350138868.pdf>.
- Newman, A. L., and E. Posner. 2018. *Voluntary Disruptions: International Soft Law, Finance, and Power*. Oxford University Press. <https://doi.org/10.1093/oso/9780198818380.001.0001>.
- Nölke, A. 2022. "Geeconomic Infrastructures: Building Chinese–Russian Alternatives to SWIFT." In *Capital Claims: Power and Global Finance*, edited by B. Braun and K. Koddenbrock, 147–166. Routledge. <https://doi.org/10.4324/9781003218487>.
- Nölke, A. 2024. "Private Institutions in Infrastructural Geoeconomics: Limits to the Rise of Emerging Economies in Global Finance." *Finance and Space* 1, no. 1: 282–298. <https://doi.org/10.1080/2833115X.2024.2377643>.
- Norrlöf, C. 2014. "Dollar Hegemony: A Power Analysis." *Review of International Political Economy* 21, no. 5: 1042–1070. <https://doi.org/10.1080/09692290.2014.895773>.
- Oatley, T. 2015. *A Political Economy of American Hegemony. Buildups, Booms and Busts*. Cambridge University Press. <https://doi.org/10.1017/CBO9781316109199>.
- Oatley, T., W. Kindred Winecoff, A. Pennock, and S. Bauerle Danzman. 2013. "The Political Economy of Global Finance: A Network Model." *Perspectives on Politics* 11, no. 1: 133–153. <https://doi.org/10.1017/S1537592712003593>.
- Pagliari, S., and K. L. Young. 2014. "Leveraged Interests: Financial Industry Power and the Role of Private Sector Coalitions." *Review of International Political Economy* 21, no. 3: 575–610. <https://doi.org/10.1080/09692290.2013.819811>.
- Pagliari, S., and K. Young. 2017. "Capital United? Business Unity in Regulatory Politics and the Special Place of Finance." *Regulation & Governance* 11, no. 1: 3–23. <https://doi.org/10.1111/rego.12098>.
- Pan, G. 2025. "A Few Observations on Global Financial Governance." *Keynote speech by Mr Pan Gongsheng, Governor of the People's Bank of China, at the 16th Lujiazui Forum, Shanghai* [Speech transcript]. BIS, 18 June. <https://www.bis.org/review/r250630e.pdf>.
- Panetta, F. 2020. "Unleashing the Euro's Untapped Potential at Global Level." [Speech transcript]. ECB, 07 July. <https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp200707~3eebd4e721.en.html>.
- Peruffo, L., A. M. Cunha, and A. E. Ferrari Haines. 2023. "China's Central Bank Digital Currency (CBDC): An Assessment of Money and Power Relations." *New Political Economy* 28, no. 6: 881–896. <https://doi.org/10.1080/13563467.2023.2196064>.
- Petry, J. 2023. "Beyond Ports, Roads and Railways: Chinese Economic Statecraft, the Belt and Road Initiative and the Politics of Financial Infrastructures." *European Journal of International Relations* 29, no. 2: 319–351. <https://doi.org/10.1177/13540661221126615>.
- Pfaff, T., F. Pape, and J. Petry. 2025. "Dollar Diminished: The Unmaking of US Financial Hegemony Under Trump." *International Organization* 79, no. S1: S117–S133. <https://doi.org/10.1017/S0020818325101033>.
- Porter, T. 2014. "Technical Systems and the Architecture of Transnational Business Governance Interactions." *Regulation & Governance* 8, no. 1: 110–125. <https://doi.org/10.1111/rego.12016>.
- Prasad, E. 2021. *The Future of Money: How the Digital Revolution Is Transforming Currencies and Finance*. Harvard University Press. <https://doi.org/10.2307/j.ctv33wwwv60>.
- Prokhorov, R. 2025. "Enhancing Cross-Border Settlement Mechanisms Among BRICS Member States." BRICS Expert Council Russia, 17 October. <https://bricscouncil.ru/en/analytics/sovershenstvova>.

nie-mekhanizmov-transgranichnykh-raschetov-mezhdu-stranami-chlenami-briks.

Prokopenko, A. 2024. "Can the Digital Ruble Shield Russia From Western Sanctions?" *Carnegie Endowment for International Peace—Russia Eurasia Center*, 17 October. <https://carnegieendowment.org/research/2024/10/russia-digital-ruble-development?center=europe>.

Quaglia, L., and A. Verdun. 2025. "The Geoeconomics of Central Banks Digital Currencies (CBDCs): The Case of the European Central Bank (ECB)." *New Political Economy* 30, no. 5: 639–651. <https://doi.org/10.1080/13563467.2025.2504390>.

Reuters. 2024. "BIS to Leave China-Backed Central Bank Digital Currency Project." <https://www.reuters.com/business/finance/bis-leave-cross-border-payments-platform-project-mbridge-2024-10-31/>.

Roberts, C., L. Armijo, and S. Katada. 2018. *The BRICS and Collective Financial Statecraft*. Oxford University Press.

Russia's Pivot to Asia. 2024. "Russia Outlines "BRICS Bridge" Digital Settlement Plans." <https://russiaspivottoasia.com/russia-outlines-brics-bridge-digital-settlement-plans/>.

Sandhu, M. 2025. "The Battle for the Global Payments System is Under Way." *Financial Times*, 06 April. <https://www.ft.com/content/40f6e292-839c-4d1f-994e-59bed627b909>.

Schaaf, J. 2025. "From Hype to Hazard: What Stablecoins Mean for Europe." ECB Blog, 28 July. <https://www.ecb.europa.eu/press/blog/date/2025/html/ecb.blog20250728~e6cb3cf8b5.en.html>.

Schwartz, H. M. 2019. "American Hegemony: Intellectual Property Rights, Dollar Centrality, and Infrastructural Power." *Review of International Political Economy* 26, no. 3: 490–519. <https://doi.org/10.1080/09692290.2019.1597754>.

Scott, S. V., and M. Zachariadis. 2013. *The Society for Worldwide Interbank Financial Telecommunication (SWIFT). Cooperative Governance for Network Innovation, Standards, and Community*. Routledge.

Seabrooke, L. 2001. *US Power in International Finance. The Victory of Dividends*. Palgrave. <https://doi.org/10.1057/9780230513365>.

Spielberger, L. 2025. "No Longer Neutral: The ECB's Geopoliticization of the International Role of the Euro." *Politics and Governance* 13, no. 8877: 1–17. <https://doi.org/10.17645/pag.8877>.

Strange, S. 1987. "The Persistent Myth of Lost Hegemony." *International Organization* 41, no. 4: 551–574. <https://doi.org/10.1017/S0020818300027600>.

Stuenkel, O. 2024. "The New World Order and the Global South." *Oxford Review of Economic Policy* 40: 396–404. <https://doi.org/10.1093/oxrep/gra008>.

Stuenkel, O., and M. Treadwell. 2024. "Why Is Saudi Arabia Hedging Its BRICS Invite?" *Carnegie*, 21 November. <https://carnegieendowment.org/emissary/2024/11/brics-saudi-arabia-hedging-why>.

SWIFT. 2012. "Swift Instructed to Disconnect Sanctioned Iranian Banks Following EU Council Decision." SWIFT Press Release, 15 March. <https://www.swift.com/insights/press-releases/swift-instructed-to-disconnect-sanctioned-iranian-banks-following-eu-council-decision>.

Tass. 2024. "Bank of Russia's Chief Does Not Rule Out Emergence of New Global Settlement Platforms." July 3. <https://tass.com/economy/1811957>.

Tsingou, E. 2015. "Club Governance and the Making of Global Financial Rules." *Review of International Political Economy* 22, no. 2: 225–256. <https://www.jstor.org/stable/24673276>.

Verdier, P. H. 2009. "Transnational Regulatory Networks and Their Limits." *Yale Journal of International Law* 34: 113–172. <https://openyls.law.yale.edu/entities/publication/6ecf1860-6863-43bf-ba8d-ae0e317f8d91>.

Wang, J. 2025. "Paradigm Shift in the Making? Geopolitical Challenges and Institutional Changes in the International Monetary System: From Neoliberalism to a Pluralist Multipolar Financial Order." *Global Policy*: 1–15. <https://doi.org/10.1111/1758-5899.70089>.

Westermeier, C. 2023. "From Flows Towards Updates: Security Regimes and Changing Technologies for Financial Surveillance." *Review of International Studies* 49, no. 4: 615–636. <https://doi.org/10.1017/S0260210522000493>.

Westermeier, C. 2024. "The Digital Euro: A Materialization of (In)security." *Review of International Political Economy* 31, no. 5: 1569–1592. <https://doi.org/10.1080/09692290.2024.2345613>.

Westermeier, C., M. Campbell-Verduyn, and B. Brandl, eds. 2025. *The Cambridge Global Handbook of Financial Infrastructure*. Cambridge University Press. <https://doi.org/10.1017/9781009428118>.

Zaring, D. 2020. *The Globalized Governance of Finance*. Cambridge University Press.

Zhou, X. 2024. "Zhou Xiaochuan: Project mBridge Aims to Bridge Global Economies With Central Bank Digital Currencies." *Caixin Weekly*, 19 November. <https://www.caixinglobal.com/2024-11-19/zhou-xiaochuan-project-mbridge-aims-to-bridge-global-economies-with-central-bank-digital-currencies-102259412.html>.

Appendix A: List of Interviews

(one individual per organisation, unless listed otherwise)

Interview 1: German Banking Association, 22 April 2024.

Interview 2: A bank, 7 May 2024.

Interview 3: A euro area central bank, 13 May 2024.

Interview 4: Two industry experts from a digital payments company, 17 May 2024.

Interview 5: The Hague University of Applied Sciences 23 May 2024.

Interview 6: European Commission 27 May 2024.

Interview 7: Three persons from the European Parliament, 27 May 2024.

Interview 8: European Central Bank, 13 June 2024.

Interview 9: A non-governmental organisation *Stichting Ons Geld* (Foundation Our Money), 14 June 2024.

Interview 10: Bank of England, 23 July 2024.

Interview 11: Legal expert, 12 August 2024.

Interview 12: Economist with a global, nonprofit business think tank, 30 April 2025.

Interview 13: Bank for International Settlements (BIS), 5 May 2025.

Interview 14: Association of German Banks, 17 June 2025.

Interview 15: Two individuals, European Banking Federation, 7 July 2025.

Interview 16: A euro area central bank, 8 July 2025 (in person, capital city).

Interview 17: Two Individuals, Atlantic Council, 16 July 2025.

Interview 18: Two individuals, a national European central bank, 31 July 2025 (in person).

Interview 19: BIS, 6 August 2025.

Interview 20: BIS, 19 August 2025.

Interview 21: Two individuals, European Central Bank, 21 August 2025.

Interview 22: A large commercial bank (Hong Kong) 3 September 2025.

Interview 23: An NGO, 5 September 2025.

Interview 24: BIS, 24 September 2025.

Interview 25: A large commercial bank (London) 30 September 2025.

Interview 26: Digital Trade Standard Industry Advisory Board, 7 October 2025.

Interview 27: Former US Treasury, currently IIF, 10 October 2025.

Interview 28: A commercial bank (Netherlands), 28 October 2025.

Semi-structured interviews were held on a virtual platform (e.g., Zoom or MS Teams) or in person. Research procedures were approved by the University of Victoria Human Ethics Board. Interviewees confirmed their willingness to participate after reviewing the Participant Consent Form.