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**Building bridges or competing in a payments arms race?
The geopolitics of the mBridge project**

**Rudy Bouguelli
Bruno De Conti**

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Building bridges or competing in a payments arms race? The geopolitics of the mBridge project

Rudy Bouguelli ¹

Bruno De Conti ²

Abstract

This article examines the mBridge project, a multi-central bank digital currency (CBDC) platform that allows cross-border payments to be settled in local currencies, a feature that could, over time, reduce US dollar dominance. It situates mBridge in the broader landscape of CBDC experiments, emphasizing the contrasting priorities of countries in the Global North and South. Drawing on a detailed case study, the paper examines how mBridge functions, the challenges likely to arise in its large-scale deployment, and the implications it raises for the future of the international monetary and financial system (IMFS). By linking technical debates on cross-border payment infrastructures with geopolitical concerns about monetary dependence, the article aims to shed light on the disruptive potential of CBDCs and their limits as instruments of systemic change.

Keywords: Central Bank Digital Currencies; Dollarization; De-dollarization; mBridge, International Monetary and Financial System; Cross-border payments.

Resumo

Construindo pontes ou competindo em uma corrida armamentista relacionada a pagamentos? A geopolítica do Projeto mBridge

Este artigo examina o projeto mBridge, uma plataforma para moedas digitais de banco central (CBDCs) que permite que pagamentos transfronteiriços sejam liquidados em moedas locais, um recurso que pode, ao longo do tempo, reduzir a predominância do dólar estadunidense. A pesquisa situa o mBridge no panorama mais amplo de experimentos com CBDCs, enfatizando as prioridades contrastantes de países do Norte e do Sul globais. Com base em um estudo de caso detalhado, o artigo examina o funcionamento do mBridge, os desafios que provavelmente surgirão em sua implantação em larga escala e as implicações que ele traz para o futuro do Sistema Monetário e Financeiro Internacional (SMFI). Ao vincular debates técnicos sobre infraestruturas de pagamentos transfronteiriços a preocupações geopolíticas sobre dependência monetária, o artigo visa lançar luz sobre o potencial disruptivo das CBDCs e seus limites como instrumentos de mudança sistêmica.

Palavras-chave: Moedas Digitais de Bancos Centrais; Dolarização; Desdolarização; mBridge; Sistema Monetário e Financeiro Internacional; Pagamentos transfronteiriços.

Classificação JEL: E42, F33, F36.

In October 2024, the Bank for International Settlements (BIS) announced its decision to withdraw from the mBridge project – a multi-central bank digital currency (CBDC) platform designed to facilitate instant cross-border payments without relying on the dollar (Reuters, 2024b). The announcement came just a week after the BRICS summit in Kazan, where the idea of a comparable platform — the BRICS Bridge — was pitched as a credible alternative to the current international monetary architecture dominated by the dollar (The Banker, 2024). Agustín Carstens (2024), General

(1) Associate professor of economics at Université Paris Cité (LADYSS), Paris, France. E-mail: rudy.bouguelli@u-paris.fr. ORCID: <https://orcid.org/0009-0007-1778-7355>.

(2) Associate Professor at the Institute of Economics, University of Campinas, Brazil). E-mail: deconti@unicamp.br. ORCID: <https://orcid.org/0000-0002-7510-5283>.

Manager of the BIS, insisted that the withdrawal was not motivated by “political considerations”. Officially, the BIS left the project because it had reached the “minimum viable product” stage. But geopolitical concerns likely played into the decision. In fact, internal debates reportedly arose about the future of the project as Vladimir Putin identified the underlying technology as a challenge to the dominance of the dollar (Bloomberg, 2024).

This lack of clarity over what really led to the BIS’ withdrawal raises a number of questions. What does the group of countries that developed mBridge — with China at the forefront — hope to achieve? And could the platform realistically challenge the dominance of the dollar? As the research on CBDCs is still nascent, no publications have addressed these questions to date.

This article intends to offer preliminary answers to these questions. The goal of the paper is twofold. It first seeks to uncover the geopolitical stakes behind the actual race for monetary innovation underway among countries of the Global North and South. Additionally, the article proposes to explain how mBridge functions and to assess its potential to disrupt the current international monetary and financial system (IMFS).

The paper is structured as follows. The first section offers an overview of various CBDC initiatives to examine the differing motivations of countries in the Global North and South. Section 2 describes the current global payments infrastructure and discusses its main limitations. Section 3 presents mBridge, examines the key challenges posed by its development and seeks to assess its potential for disruption. Section 4 takes a look at various alternatives to mBridge. Section 5 concludes.

1. CBDCs: diverging views in the Global North and South

The International Monetary Fund (2022) claims that the world is currently going through a “money revolution”. The digitalization of finance is propelled by the emergence of crypto-assets (e.g., Bitcoin) and the response of central banks developing CBDCs. CBDCs can broadly be described as a “digital extension of the existing forms of central bank money” (Bank for International Settlements, 2021, p. 3). Retail CBDCs aim to provide the public with a digital form of central bank money —that is, digital cash. In contrast, wholesale CBDCs serve as a new settlement instrument for interbank transactions³. This section primarily focuses on retail CBDCs, while the rest of the paper is devoted to wholesale CBDCs.

More than 130 countries in the world are (or have been) involved with the research and/or development of their own CBDCs. Yet, the motivations behind this innovation and the timing of central banks’ involvement vary considerably. In particular, it is interesting to realize that Global South countries have been at the avant-garde of the process, whereas the Global North has been initially reluctant.

In fact, some Global South countries tried to develop a CBDC before it became a global trend. The main reason was to reduce US dollar dependence. In 2014, the *dinero electrónico* was created in Ecuador. Then-president Rafael Correa clearly understood the problems faced by a fully dollarized economy. However, reversing thirteen years of dollarization and reviving the national currency was

(3) As Panetta (2022) points out, wholesale CBDCs have existed for decades as central bank reserves are already a digital form of money. The purpose of wholesale CBDCs is thus to make interbank transactions “safer and more efficient” (ibid).

extremely difficult. Ecuador's monetary authorities therefore sought to reintroduce a national currency by creating a new one in digital form (Arauz et al., 2021). In 2018, Venezuela launched the *petro*, a digital currency backed by its vast oil reserves. Amid severe US sanctions that led to dollar shortages and hyperinflation, the Petro was meant to serve as an alternative to the constantly depreciating *bolivar* and a way to bypass the sanctions. Both initiatives ultimately failed, largely because private actors did not trust the new currencies (De Conti; Ponsot, 2025).

These two isolated experiments were followed years later by a global wave. The Bahamas launched the Sand Dollar in October 2020 to enhance payment efficiency and to boost financial inclusion⁴. After that, Jamaica (JAM-DEX, 2021-22), Nigeria (e-Naira, 2022) and Zimbabwe (ZIG, 2024) launched their CBDCs.

In addition, there are some countries where CBDCs are already being used in pilot-projects. Among them, China is drawing attention due to the digital renminbi's (e-CNY) international potential. After all, it is becoming clear that the e-CNY is being developed not just for domestic use but also to promote the internationalization of the Chinese currency (Boaventura et al, 2023). Other BRICS countries are also identifying CBDCs – and new cross-border payment systems – as possible tools to lessen reliance on the US dollar.

It is thus interesting to note that while the launch of CBDCs has been considered across the globe, it has only become a reality so far in countries of the Global South. At first glance, it may seem surprising since innovations typically come from the Global North. But many actually arise in response to specific necessities—dysfunctional monetary systems in this case. Hence, many Global South countries view CBDCs as a potential vector for de-dollarization. In some cases (e.g., Nigeria and Zimbabwe), it refers to the de-dollarization of the national economy by strengthening the use of the national currency. In others (e.g. China and other BRICS countries), it may allude to the push for the de-dollarization of the world economy (i.e., cutting back on the use of the US dollar in cross-border transactions).

Global North countries were initially reluctant about CBDCs. While the development of CBDCs was well underway in some Global South countries, most core countries had still not considered this possibility⁵. A watershed moment came with the announcement of the Libra/Facebook project in 2019. The risk of losing monetary sovereignty prompted a strong reaction from many central banks which began researching CBDCs. Nonetheless, with a radical difference between the US and the rest of the Global North countries.

The Eurozone began exploring the digital euro in 2021. Progress has been cautious but steady. A final decision on whether to implement it is expected by the end of 2025, with strong signs pointing toward approval. As for the motivations, it's notable that official ECB documents do not mention the asymmetries of the IMFS⁶. But it is clear that a key motivation behind the digital euro is to reduce dependency on US payment companies (especially Visa, Mastercard, and PayPal). In particular, there

(4) As an archipelago of 700 sparsely populated islands, transporting cash and maintaining a network of bank branches is costly and inefficient.

(5) As a matter of fact, the People's Bank of China established its Digital Currency Institute in 2016.

(6) Officials merely state that the digital euro may enhance the international role of the euro (e.g. Lagarde, 2025).

are serious concerns about the political risks stemming from rising geopolitical tensions following Donald Trump's return to the White House.

The US has followed a tortuous path on CBDCs. In fact, the combination of the interests of the crypto industry and anti-state ideology produced a powerful lobby against CBDCs. With financial backing from crypto firms, many Republican Senators have repeatedly voiced strong opposition to CBDCs⁷. In this context, the Federal Reserve conducted experiments on CBDCs, including a multiyear research project coordinated by the Boston Fed and the MIT to explore the viability of a hypothetical CBDC for the US economy⁸. For his part, Jerome Powell stated that “it is more important to get it right than to be first” (Reuters, 2020). Despite all this hesitation, in 2022 then-President Joe Biden issued a White House Order calling for ‘the highest urgency’ in research on CBDC development (White House, 2022). Yet, on the fourth day of his new term, Trump issued a new White House Order revoking Biden's order, stating that “agencies are hereby prohibited from undertaking any action to establish, issue, or promote CBDCs within the jurisdiction of the United States or abroad.” (White House, 2025). In addition, Trump created the “President's Working Group on Digital Asset Markets”. In short, after years of hesitation, Trump's government defined a clear strategy: to promote the digitalization of money via the private sector. This strategy seeks to maintain dollar dominance through US-backed stablecoins instead of a digital dollar issued by the Federal Reserve⁹.

The BIS is the leading multilateral institutions on CBDC matters. Although it was initially reluctant about CBDCs, it later showed strong enthusiasm for them. In a revealing statement, Hyun Song Shin – BIS economic adviser and head of research – declared that “everything that can be done with crypto can be done better with central bank money” (Shin, 2022). The BIS is currently involved in a dozen projects related to wholesale CBDCs. Indeed, central banks have increasingly focused on wholesale applications over the last years. Yet, the BIS is not seeking to address the asymmetries of the IMFS either. Instead, the goal is merely to increase the efficiency of the system. As with retail CBDCs, countries in the Global North and South have different aspirations for wholesale CBDCs. To understand how CBDCs could reshape the global payment system, one must first understand how it functions and its key limitations — which the next section sets out to do.

2 The global payments infrastructure: technical and (geo)political limits

2.1 The correspondent banking system and its shortcomings

Cross-border payments are generally defined as transactions in which the payer and the payee are located in different jurisdictions. From the customer's perspective, cross-border payments seem deceptively simple: the payer's account is debited while that of the payee is credited. But in practice, cross-border payments are much more complex than domestic ones.

(7) One of the vocal Senators is Ted Cruz, who claimed in February 2024 that “The Biden administration salivates at the thought of infringing on our freedom and intruding on the privacy of citizens to surveil their personal spending habits, which is why Congress must clarify that the Federal Reserve has no authority to implement a CBDC” (Ledger Insights, 2024).

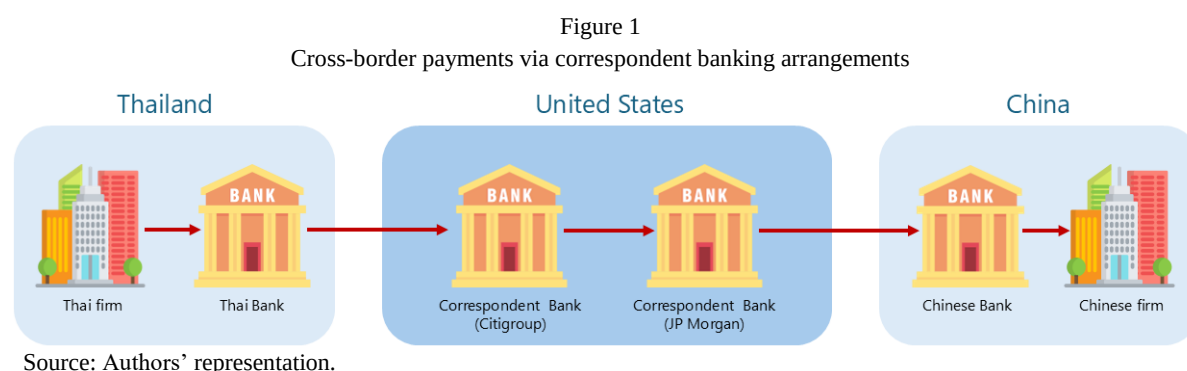
(8) For more information on the Project Hamilton, see Federal Reserve Bank of Boston (2022).

(9) Given the monetary and financial power of the US, this decision is already having impact on other Global North countries' strategies – e.g., the Bank of Korea has declared that it will step back in the development of its CBDC and the Bank of England is also considering it.

This is because currencies do *not* actually cross borders, despite the common impression that money is being “sent abroad” (Rambure and Nacamuli, 2008). Payments in a given currency are settled at the central bank that issues the currency. On the books of the central bank, reserve balances are effectively transferred from the account of the payer’s bank to that of the payee’s bank. As such, a bank that wants to process payments in a particular currency must maintain a presence in the country of issuance. The first option is to open a subsidiary in the country to get a reserve account at the central bank. However, given the high costs and regulatory requirements involved, banks usually favor the second route: accessing the payment system indirectly. In fact, a bank can gain access to a payment system by opening an account with a local bank, which will process payments on its behalf¹⁰. If the foreign bank wants to make a payment, the correspondent will debit its account and transfer the reserves to the recipient bank (and vice versa to receive a payment).

By opening accounts with each other across different jurisdictions, banks developed the correspondent banking system. Correspondent banks serve as the backbone of the international monetary system, handling the bulk of cross-border transactions (Rice et al., 2020). But they pose a number of problems, which can be understood with a simple example.

Let’s consider a Thai company that imports capital equipment from China and needs to pay for it in US dollars. The following figure shows the different stages of the settlement process.



For the sake of clarity, we will assume that the Thai and Chinese banks have Citigroup and JP Morgan as their respective correspondents in the US. At the outset, the Thai company instructs its bank to pay the Chinese firm in US dollars. The Thai bank will then direct Citigroup to credit the Chinese bank, noting that the transaction will be covered by its dollar correspondent. Consequently, the nostro account of the Thai bank at Citigroup will be debited while that of the Chinese bank at JP Morgan will be credited. The payment settles at the Federal Reserve, where Citigroup’s account is debited and JP Morgan’s credited. Finally, the Chinese bank will credit its client’s account with the corresponding sum.

In many cases, the payment chain will be longer than in our example, where the number of intermediaries is relatively limited. While we considered a monocurrency payment, cross-currency

(10) The local bank is said to act as the correspondent of the foreign bank. The foreign bank refers to the account held at its correspondent as its “Nostro” account (Italian for “ours”), whereas the correspondent refers to it as a “Vostro” account (Italian for “yours”).

payments involve an FX conversion – for example, if the Thai importer pays in baht and the Chinese exporter receives renminbi. Accordingly, the conversion across currencies introduces additional steps to the process (He et al., 2022). Moreover, we assumed that the Thai and Chinese banks were sufficiently large to have correspondents in the US. In reality, the correspondent banking system is hierarchical (Leibbrandt; Teran, 2021, ch. 17). The number of global banks that maintain correspondent relationships in multiple jurisdictions is limited. As a result, the number of intermediaries involved increases when a smaller bank conducts cross-border payments. The smaller bank will generally maintain an account with a medium-sized regional bank, which will then route the payment through a global bank.

The complexity of the process and the length of the payment chain explain why cross-border payments are characterized by “high costs, low speed, limited access and insufficient transparency” (Financial Stability Board, 2020). High costs stem not only from the fees charged by each intermediary along the payment chain, but also from the need to cover a wide range of costs – including operational, regulatory compliance, FX, correspondent, and liquidity costs (ibid, p. 14). Cross-border payments are also slow, with settlement delays mainly caused by differences in payment system operating hours, varying payment standards, and the requirement for each institution along the chain to conduct regulatory compliance checks (ibid). Finally, the complexity of the process results in a lack of transparency for all the parties involved, making it difficult to track the payment status or to know the upfront cost of the transaction (ibid).

These technical challenges prompted a collective response from the Financial Stability Board, the Bank for International Settlements’ Committee on Payments and Market Infrastructures (CPMI), and other international bodies, leading to the creation and subsequent implementation of the G20 Roadmap for improving cross-border payments (Financial Stability Board, 2024). However, the challenges posed by the correspondent banking system are not merely technical.

2.2 (Geo)political issues in the current system

Global payment infrastructures also carry geopolitical implications, as they both reflect and reinforce the unequal distribution of power among nations.

While the concept of power is widely used, it is often employed with a lack of theoretical grounding and vague definitions (Cohen, 2015, pp. 28–29). There are two ways to understand the concept of power, each relating to one of its key dimensions (ibid). A state is said to have power over another if it can influence it, that is, if it can force or induce a change in its behavior. But power can also be understood in terms of autonomy, which consists in the ability of a state to act unilaterally, free from the influence of other states.

The architecture of the global payment system disproportionately empowers the United States. Since the dollar accounts for around 60% of international transactions, the vast majority of cross-border payments are routed through the US banking system (Bertaut et al., 2025). As a result, the US banking system stands as the central hub of the correspondent banking network, and by extension, of the global financial system. This control over one of the critical choke points of the global economy confers significant coercive power on the United States (Farrell and Newman, 2023). Cutting off some countries’ access to their banking system through sanctions allows them to weaponize the dollar. This is tantamount to a near total isolation from the global economy, as

sanctioned countries can no longer use the dollar for operations where it remains central, such as international payments, trade financing, foreign debt servicing, or the purchase and sale of foreign assets (McDowell, 2023, p. 28)¹¹.

But influence is not the only form of power conveyed through the global payment infrastructure. In the current system, international payments do not really exist¹². As explained above, cross-border payments are in fact settled through a succession of domestic transactions. For this not to be the case, the financial plumbing would have to be redesigned along the lines of what Keynes envisioned¹³. But under the current infrastructure, some currencies must be used beyond their national boundaries to serve as international currencies. This structural feature creates an asymmetry: countries that issue currencies used beyond their borders enjoy greater autonomy than those that need to rely on foreign currencies for their international activities. Put simply, the international currency hierarchy implies that countries issuing key currencies have more policy space – i.e., more leeway to implement their economic policies – than those whose currencies sit at the bottom of the hierarchy (e.g. Kaltenbrunner and Lysandrou, 2017; Fritz et al., 2018).

To sum up, the shortcomings of the current system—both technical and geopolitical—have sparked interest in initiatives to enhance cross-border payments. Yet while the interest is widely shared, expectations likely differ depending on a country's position in the currency hierarchy. For countries at the top, the main motivation lies in solving technical issues. Meanwhile, geopolitical constraints weigh more heavily on countries further down the hierarchy. One of the most important initiatives is the mBridge project.

3 The mBridge project: credible alternative or tactical fix?

3.1 How does mBridge works?

Project mBridge was jointly developed by the Hong Kong Monetary Authority (HKMA), the Bank of Thailand (BOT), the Central Bank of the United Arab Emirates (CBUAE), the Digital Currency Institute of the People's Bank of China (PBCDCI) and the BIS Innovation Hub Hong Kong Centre (HKC).

It came about as the last stage of a project initiated in 2019. Back then, the HKMA and BOT launched Inthanon-LionRock to allow banks in both jurisdictions to transfer funds and perform FX transactions in wholesale CBDCs (BIS Innovation Hub, 2022). In 2021, the BIS Innovation Hub HKC, the PBCDCI, and the CBUAE joined the project, which moved into its last phase and was renamed “mBridge”. Subsequently, several central banks, the IMF and the World Bank joined the project as observers¹⁴.

(11) We discuss sanctions in more detail below.

(12) We borrow the formulation from a practitioner interviewed by He et al. (2022).

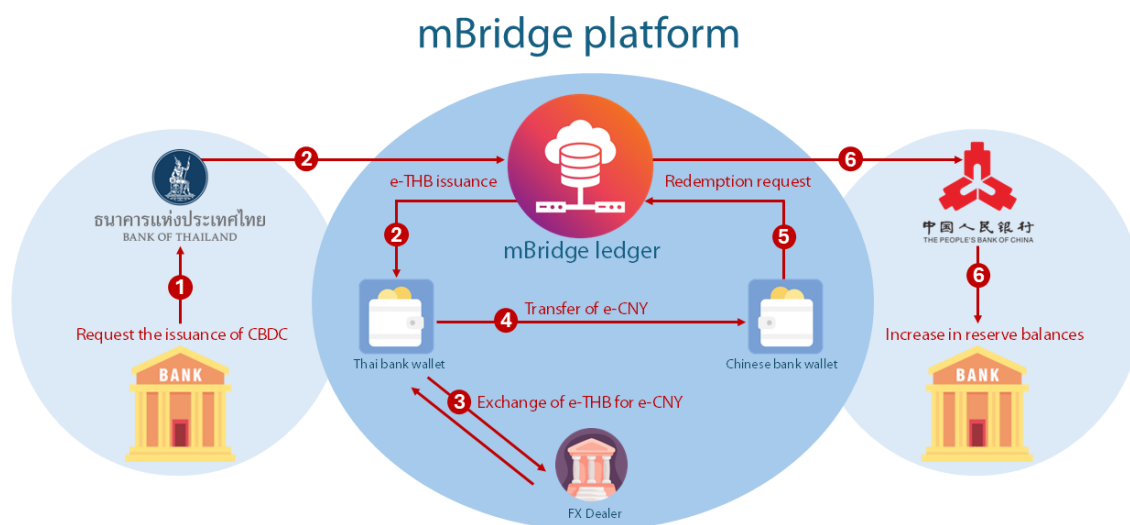
(13) We are alluding to Keynes' Plan (1980) and more particularly to the idea of a supranational currency such as the *bancor*.

(14) In 2024, the Saudi Central bank joined the project as a “full participant” (Reuters, 2024a). As of late 2024, the project involved 31 observing members, including the Fed of New York and the European Central Bank (Central Banking, 2024).

The goal of mBridge is to achieve the “holy grail” of cross-border payments – that is, to have international payments that are “immediate, cheap, universally accessible and settled in a secure settlement medium” (BIS Innovation Hub, 2022, p. 7; Bindseil and Pantelopoulos, 2022). To this end, mBridge provides a multi-CBDC platform built on distributed ledger technology (DLT)¹⁵. Through this common infrastructure, financial institutions can directly hold and transact in various CBDCs, regardless of their jurisdiction.

To fully grasp how mBridge functions and to assess its full potential, it may be useful to start by drawing on a simple example. Let’s return to the case of the Thai firm that imports capital equipment produced by a Chinese company. The different phases of the process are illustrated in the figure below.

Figure 2
Cross-border payments via mBridge



Source: Authors' representation.

At the outset, the Thai company instructs its bank to pay its Chinese supplier. In order to make the payment, the Thai bank needs to fund its mBridge account. To do so, it submits a request for CBDC issuance to the Bank of Thailand. Central banks ensure the convertibility between reserves and CBDCs, allowing banks to shift from the domestic payment system (off-bridge) to the platform (on-bridge). Accordingly, the bank's wallet on mBridge will be credited with the newly issued e-THB, while its reserve account at the central bank will be debited.

Now that the Thai bank has moved on-bridge, it can directly settle with the Chinese bank. However, the settlement will likely be made in Chinese CBDC (e-CNY). This is because central

(15) Simply put, the idea of a distributed ledger refers to “a common record of activity that is shared across computers in different locations” (Bech; Garratt, 2017). It is therefore a distributed database that operates in a decentralized way, without a trusted authority. The mBridge is the only multi-CBDC project that relies on a DLT built by central banks themselves — the mBridge ledger (BIS Innovation Hub, 2022).

banks serve as the entry and exit points of the platform. To move off-bridge, the Chinese bank must therefore convert e-CNY into reserves¹⁶. Accordingly, the Thai bank needs to perform a foreign exchange transaction. Let's assume that it exchanges its e-THB for e-CNY with an FX dealer (more on this below). It can then settle the transaction with the Chinese bank by transferring the e-CNY.

In the third and final step, the Chinese bank moves from the platform to its domestic payment system. In order to do so, the bank submits a redemption request for its e-CNY to the central bank. Its wallet on mBridge will be debited, while its account at the PBOC will be credited. The Chinese bank will then credit the supplier's account in renminbi.

Two important points need to be underlined. Firstly, what truly sets mBridge apart is that the payer's bank no longer has to rely on a correspondent bank to settle the payment with the payee's bank. By allowing banks to directly hold multiple CBDCs, the platform makes it possible for the payer's bank to settle directly with the payee's bank. In a sense, it is as if banks held an account with the central bank of each jurisdiction. This allows them to settle international transactions like domestic ones (via a simple transfer of central bank money).

The second issue relates to the actual nature of CBDCs. The CBDCs issued on mBridge are commonly described as central bank money but this is inaccurate. CBDCs are not central bank liabilities per se. In fact, they are a digital representation of a right to claim ownership over a central bank liability¹⁷. The liability to which the CBDC gives claim corresponds to reserve balances that have been immobilized in a segregated account. These funds are effectively "locked" to guarantee the tokens issued on the platforms. Accordingly, every inflow or outflow of funds in this account is mirrored by the issuance or redemption of CBDCs on-bridge. While this point might be perceived as a minor terminological issue, it has far-reaching legal implications (explored below).

Over the course of its six-week pilot phase, more than 12 million dollars of CBDCs were issued on mBridge. These CBDCs were used to settle 22 million dollars of cross-border payments and foreign exchange transactions (BIS Innovation Hub, 2022). Most of the participating commercial banks acknowledged the benefits of the platform "in terms of speed, intermediary reduction, transparency, cost, availability and risk reduction" (ibid, p. 23). To be more precise, payments that typically take 3 to 5 days to settle were completed in just a few seconds with mBridge (Bank of Thailand, 2022).

3.2 Building an alternative infrastructure: technical and (geo)political hurdles

With the pilot phase completed, the mBridge project moved forward, ultimately reaching the minimum viable product (MVP) stage in June 2024 (Bank for International Settlements, 2024a). Nonetheless, several challenges have yet to be addressed. The full deployment of the platform and its broad adoption will depend on overcoming them.

(16) The issuance and redemption of CBDCs against reserve balances by central banks is restricted to domestic banks (BIS Innovation Hub, 2022, p. 32).

(17) The term "token" is often used to describe the digital representations of an asset. Tokenization can thus be defined as the "process of generating and recording a digital representation of traditional assets on a programmable platform" (Bank for International Settlements, 2024b, p. 6).

One of the key issues faced by multilateral platforms is that each jurisdiction operates under different laws and regulations. A range of problems may arise if there are important differences between the various legal/regulatory frameworks, if the application of the law is uncertain or even if a given law applies in an unexpected way.

One of the key legal issues relates to the classification of CBDCs under the law. As noted above, CBDCs issued on the platform are in fact tokens. But what do I own when I own a token? Do I own currency, a representation of funds on an account with the central bank or something else? As noted by Athanassiou (2020), “assets recorded on a distributed ledger have no inherent legal characterization other than the one that the law is prepared to attach to them”. As a result, the legal status of tokens differs across jurisdictions. While tokens can confer property rights in certain jurisdictions, this is not the case in all legal systems (ibid).

Assuming that the legal categorization of CBDCs has been clarified, a crucial question persists — that of settlement finality. Settlement finality is generally defined as the discharge of an obligation by a transfer of funds that is both irrevocable and unconditional. When, precisely, can settlement be deemed final? Beyond legal differences across jurisdictions, distributed ledger technology introduces additional complexity (ibid). Is settlement final when the transfer of tokens is recorded on the distributed ledger? Or in central bank’s books when reserves are transferred?

Differences across regulatory frameworks can also generate significant challenges, including those related to Anti-Money Laundering (AML), Countering the Financing of Terrorism (CFT), and sanctions. Privacy regulations, such as those concerning data protection and localization, can also be problematic. Once again, different jurisdictions adopt different approaches to these regulatory matters. In terms of AML/CFT and sanctions, mBridge obliges commercial banks to comply with applicable laws and regulations (BIS Innovation Hub, 2022). Banks must carry out off-bridge checks to obtain a certification for the transaction on the platform. Central banks may also exercise their discretionary powers when issuing or redeeming CBDCs to ensure that banks align with their domestic policies. As for privacy laws, the platform ensures that data are only shared with the transacting parties and their respective central banks. But the BIS concedes that “more work and exploration remain to be done to ensure that different data privacy and governance regulations across jurisdictions are adequately addressed” (ibid, p. 35).

Governance also represents a fundamental challenge. It entails designing a governance framework that sets out the rules, rights, and obligations of all parties. The questions raised can be especially difficult to address. Under which law would the platform be incorporated? Who would constitute the decision-making body for the platform? How decisions should be taken? What would be the dispute resolution mechanisms and procedures? What criteria would need to be met by the participants to gain access to the platform? And a host of other questions (BIS Innovation Hub, 2022; Bank for International Settlements, 2023b).

The full deployment of mBridge will thus hinge on resolving legal conflicts, changing certain laws, harmonizing regulatory frameworks, and designing proper governance arrangements, which can take several years. For the pilot phase, extensive cross-jurisdictional coordination was required among the four central banks and 20 commercial banks (BIS Innovation Hub, 2022). Several legal documents had to be drafted to reach an agreement on the operational and legal aspects necessary for conducting real value transactions. But a real-world deployment would prove much more complex.

As the number of jurisdictions and participants increases, harmonization and consensus become increasingly difficult to achieve. The pilot's scope was also restricted, offering only basic functionalities, and allowing only a few types of transactions. For practical reasons, some convenient solutions were also preferred. For instance, the mBridge ledger was centrally deployed via a cloud in Hong Kong whereas the deployment and operation of the platform would have to be shared among the participants for data privacy and governance reasons.

All these challenges are framed as purely technical problems in various BIS reports (see for example Bank for International Settlements, 2022; BIS Innovation Hub, 2022; Bank for International Settlements, 2023). But they have significant geopolitical implications. The setting of technological and regulatory standards are crucial levers in the context of heightened geopolitical rivalries (De Conti, 2025). Far from being a neutral undertaking, the resolution of the above-mentioned challenges is inherently political. By exerting influence over the design of a strategic infrastructure, states may gain a form of control over it. As Farrell and Newman (2019, 2023) point out, states that control key infrastructures like global payment systems or the internet backbone can turn them into tools of coercion, thereby weaponizing interdependence.

These challenges will thus be all the more difficult to tackle given their geopolitical implications. If the solutions adopted are solely dictated by the balance of power between participants, the platform would lose much of its appeal. Although mBridge is praised for enhancing cross-border payments, it also embodies aspirations for a deeper transformation.

By supporting the use of local currencies in international transactions, it may reduce dollar dependency. But could it really provide a multilateral payment system better suited to the realities of a multipolar world? And could it challenge the built-in asymmetries of the current system?

3.3 A challenge to the hierarchies of the current system?

Up to this point, we have ignored one of the thorniest issues. The platform certainly promotes the use of local currencies for international transactions. The payer uses its domestic CBDC for a cross-border payment while the payee receives the payment in its own domestic CBDC. But it does *not* eliminate the need for an FX operation. As shown in our example, once the Thai bank is onboarded on the platform and receives its e-THB, it must exchange them for e-CNY. A fundamental question logically follows. How is the exchange rate between these two currencies set?

This issue was sidestepped for mBridge's pilot. Exchange rates had to be pre-set off-platform (BIS Innovation Hub, 2022, p. 22). Once the rate was set, the settlement for the FX transaction could be executed on the platform. As such, the volume of transactions conducted on mBridge was significantly constrained (BIS Innovation Hub, 2022). In fact, most of the transactions took place between banks with pre-existing business relationships. This "lack of an efficient FX price-discovery mechanism on-bridge" is seen as one of the main constraints to the large-scale use of the platform (ibid).

The creation of an FX market on-bridge will therefore be necessary to scale up the platform. The foreign exchange problem can be summed up as follows¹⁸. The Thai bank that seeks to exchange

(18) Similar presentations of the FX problem can be found in Adrian et al. (2023) and He et al. (2022).

e-THB for e-CNY must find a counterparty willing to make the reverse trade. But it is highly unlikely that this counterparty will come to the market precisely at the same time and that it will be willing to exchange exactly the same amount. The solution lies in the presence of market makers who maintain inventories of both currencies, allowing them to act as a counterparty in both directions at any time. As a result, transactions no longer need to coincide. The Thai bank can exchange e-THB for e-CNY with the FX dealer, who can also act as a counterparty for the reverse trade at a later point in time. The FX dealer plays a key role in intermediating trades between participants, effectively bridging mismatches between buy and sell orders. By absorbing all the order flow, it commits its balance sheet and provides liquidity to the market.

The central banks that manage the platform will therefore have to designate the institutions that will be allowed to act as dealers (Eichengreen, 2021). They will also have to agree on how to regulate their activity (*ibid*). Finally, they will also need to agree on the terms of emergency liquidity provision (*ibid*). In the event of a significant imbalance between order flows, dealers' balance sheets may prove insufficient to absorb the shock. Central bank would thus have to support the dealers. But at what price? And against what kind of collateral?

More importantly, a private market-making system would likely recreate a hierarchy among currencies. Market making is characterized by strong economies of scale. This is largely due to the costs associated with large currency inventories (He et al., 2022). In the case of a currency with a large volume of payment orders in both directions, liquidity can be provided at low cost. Dealers do not need to hold large inventories, as customer flows are easier to match. Even if transaction volumes are high, dealers' net positions remain limited, which reduces the cost to cover their FX exposure. By contrast, for currencies with few two-way flows, providing liquidity is more costly. Dealers must maintain larger inventories and face significant FX exposure, leading to higher hedging costs. As a result, it is likely that some currencies will be much more liquid than others on the platform.

Alternatively, central banks could assume the role of market makers. Each central bank would enable two-way exchanges between its CBDC and those of other countries. To do so, central banks would need to hold inventories of all other CBDCs. Consequently, central banks would face direct exposure to exchange rate risk, which is likely to deter them from adopting this model. Moreover, the currency hierarchy would likely be reinstated in this scenario as well.

Regardless of the institutional arrangement that will prevail, the creation of an FX market on-bridge would present a clear benefit. The platform would allow FX transactions to be settled instantaneously and atomically on a Payment-vs-Payment (PvP) basis — meaning that either both legs of the transaction settle or neither does (BIS Innovation Hub, 2022). The platform would thus eliminate settlement risk, which remains a persistent issue in FX markets (Glowka and Nilsson, 2022)¹⁹. Moving to instantaneous settlement on a 24/7 basis would mark a major shift from current FX market practice. Currently, settlements for the most liquid currency pairs occur two business days after the trade (T+2) while exotic pairs may take up to a week (Ginneken, 2019).

(19) Settlement risk is the risk that one party in a FX transaction fails to deliver the currency owed. It is also known as Herstatt risk, following the failure of Bankhaus Herstatt in 1974.

While frequently portrayed as a breakthrough, this feature could pose a problem that is difficult to resolve. The persistence of the T+2 settlement standard since the 1980s is not due to a lack of technological innovation. But rather to a lack of demand for instant settlement (CLS, 2024; He et al., 2022). Indeed, delayed settlement (T+2) enables dealers to net their trades. This means that they can freely buy and sell throughout the day, knowing that they will only have to settle a smaller net position afterwards. The shift to instant settlement (T+0) would mean that all transactions would have to be pre-funded, which could discourage dealers from providing liquidity²⁰. This raises the question of whether “there will be sufficient participation and sufficient liquidity to make a true spot market in foreign exchange viable” (He et al., 2022, p. 39). A case in point is CLS-Now, launched in 2019 to provide real-time FX settlement, which failed to attract significant volume (ibid). If this were the case for mBridge, it would be up to the central banks to make markets, with the problems discussed above.

In the end, FX-related challenges remain substantial. The on-bridge FX market is also likely to be hierarchical in nature. While mBridge might not alter the currency hierarchy, it could still foster greater autonomy for participating countries. Indeed, by offering a viable alternative to the correspondent banking system, it could reduce their vulnerability to unilateral US sanctions.

3.4 A tool for circumventing sanctions?

At first sight, it seems that mBridge could be used to bypass US sanctions as it provides an alternative payment rail. Given that payments do not go through the US banking system, one might think that they are not exposed to sanctions. But this is not the case.

To begin with, it should be stressed that every participating bank has to comply with its jurisdiction’s sanctions regime. As noted above, mBridge requires banks to comply with applicable laws and regulations (including sanctions). Accordingly, they are obliged to conduct sanctions checks off-bridge to process payments on the platform.

However, this is not the main constraint when it comes to circumventing sanctions. The main challenge comes from secondary sanctions. To grasp it, it is necessary to explain how sanctions work in practice. The Office of Foreign Assets Control (OFAC) at the US Treasury maintains a list of entities (individuals, firms...) that are blacklisted by the US – the so-called Specially Designated Nationals (SDNs). Primary sanctions forbid banks with US operations from conducting transactions on behalf of any SDN (McDowell, 2023)²¹. As a result, the targeted entity will be unable to carry out any transaction with a bank that has US operations.

But the SDN can circumvent these sanctions by routing transactions through an intermediary. Even if its access to the US financial system has been cut off, it can still reach it indirectly through a

(20) The same problem arises with Automated Market Makers (AMMs), whose goal is to replace dealers. As noted by the BIS (2023a), “the use of AMMs requires the pre-funding of liquidity and their adoption would therefore entail a significant departure from the ex post funding (deferred net settlement) in use in today’s FX markets. All else equal, pre-funding is costly and needs to be weighed against a range of potential benefits”.

(21) Banks with US operations include both US banks and foreign banks with branches in the US. Because of their presence in the US, they fall under the US jurisdiction and must comply with Treasury requests.

foreign bank with no presence in the US. In this way, US banks provide banking services to the foreign bank, which acts on behalf of the SDN.

Secondary sanctions carry much heavier consequences. Banks with US operations are not only prohibited from doing business with an SDN but also with any non-US bank acting on behalf of an SDN (ibid). As such, any bank that serves an SDN faces the risk of being cut off from the US financial system. To avoid such risk, banks around the world often prefer to sever all ties with targeted entities. In fact, banks tend to overcomply with secondary sanctions²².

We now understand why mBridge is unlikely to provide a viable channel for sanctions evasion.

Let's suppose that an entity under secondary sanctions wants to sell oil to a Chinese firm. It is unlikely that any bank would agree to take part in such a transaction, even if mBridge eliminates the need to go through the US banking system. Indeed, any bank participating in the transaction would be exposed to the risk of being sanctioned. And even the most valuable client relationship cannot make up for the loss of access to the US financial system. As the financial blogger J.P. Koning puts it, sanctions are a bullying “us-or-them” strategy, and the US economy is far too central for anyone to side with the sanctioned entity (Bullionstar, 2019).

The Instrument in Support of Trade and Exchanges (INSTEX) is a perfect case in point. Following the United States' unilateral withdrawal from the Iran nuclear deal, European governments announced the launch of an alternative payment channel aimed at maintaining trade with Iran (European Union, 2018). To minimize the risk of sanctions, the idea was to eliminate direct payments between Europe and Iran. To this end, two Special Purpose Vehicles (SPVs) were created: INSTEX in Europe and STFI (Special Trade and Finance Instrument) in Iran. In each region, the SPV would be tasked with collecting payments from its importers and transferring them to its exporters. European companies that import goods from Iran would pay INSTEX in euros. Similarly, Iranian companies that import goods from Europe would pay STFI in rials. Each SPV would then use the money collected to pay the exporters of its own region: INSTEX would pay European firms exporting to Iran, and STFI would pay Iranian firms exporting to Europe. In this way, the goods would circulate between Europe and Iran, but the payments would remain confined within each region.

However, the effort ultimately failed. One year after its creation, INSTEX remained unused (Leibbrandt and Teran, 2021, p. 291). Banks were reluctant to take any risk, even though the payments exclusively flowed between EU companies. The first and only transaction completed took place in March 2020 (ibid, p. 292). It involved the export of medical goods to Iran to fight the Covid pandemic – i.e. goods exempt from sanctions. In the end, the Europeans decided to dissolve INSTEX in March 2023 (Associated Press, 2023).

(22) For example, the 2012 tightening of sanctions against Iran led to a dramatic drop in medicine imports, even though sanctions included exemptions for medical drugs (New York Times, 2013). Banks simply refused to engage in these transactions, although they were perfectly legal.

4 Alternative projects: reforming to preserve the status quo?

While mBridge moves forward, a multitude of alternative projects are being developed in collaboration with the BIS. The question, then, is whether these initiatives are truly transformative or merely ways to improve the current system in order to preserve it.

One of the leading projects under development today is Agorá. It is a public-private partnership led by the BIS, with participation from the Institute for International Finance (IIF), the Bank of France (representing the Eurosystem), the Bank of Japan, the Bank of Korea, the Bank of Mexico, the Swiss National Bank, the Bank of England, the Federal Reserve Bank of New York, and 42 private financial institutions (SWIFT, Visa, some commercial banks...). The stated goal is “to use new technology to improve the correspondent banking model” (BIS Innovation Hub, 2024). In the correspondent banking model, the accounts involved must be updated on the balance sheet of each intermediary along the payment chain. Each intermediary also performs its own regulatory compliance checks and handles its own messaging flows. Consequently, the process is both time-consuming and inefficient. Agora would bring commercial banks and central banks together on a single, unified ledger –recording all the transactions in one place. As a consequence, payments would be executed “atomically rather than as a series of sequential updates to separate ledgers” (Garratt et al., 2024). Centralization would also streamline compliance checks and messaging.

Clearly, the project intends to preserve the current system. This is explicitly stated in the project’s Frequently Asked Questions (FAQ), which includes a symptomatic question: “What is the real net benefit from Project Agorá? If it aims to maintain all the existing structures, what really changes?” (BIS Innovation Hub, 2024). The answer is clear: “This is about improving, via technology, what central and commercial banks already do today and enabling greater speed efficiency as well as new possibilities for cross-border payment system for people and businesses” (ibid).

To date, Agorá is “the BIS Innovation Hub’s largest and most complex project in geographical scope and number of participants” (BIS Innovation Hub, 2024). It is no coincidence that the project involves the central banks of five of the most important international reserve currencies (US dollar, euro, Japanese yen, pound sterling and Swiss Franc). Mexico is the only country of the Global South whose monetary authorities are represented.

Project Dunbar led to the development of two multi-CBDC platform prototypes. It was also led by the BIS and involved the central banks of Australia, Malaysia, Singapore, and South Africa. It was thus one of the few projects that did not include any European central banks, although France and Hungary participated as observers. From a technical standpoint, Dunbar closely resembled mBridge. But it remained limited to two prototypes. Moreover, these prototypes were built on two pre-existing DLTs — Corda and Quorum — while mBridge operates on its own custom blockchain. As with other initiatives, the stated goal was merely to improve payment efficiency. The project faced challenges similar to those discussed above, including issues of governance, jurisdictional boundaries, and foreign exchange — with FX transactions also occurring outside the platform (Bank for International Settlements, 2022a). The final report concludes that Dunbar “ended with more questions than answers, and more questions than before it started” (ibid). This is completely understandable for an exploratory project, but it is striking that there is no relevant follow up on the project – possibly revealing that a multi-CBDC platform is not a priority for the BIS.

Developed through a partnership between the BIS Innovation Hub and the central banks of France, Singapore and Switzerland, Project Mariana was concluded in 2023, generating interesting inputs for discussions related to multi-CBDC payments. Unlike Project Dunbar, the objective was not to develop a common platform for cross-border payments, but rather to build a proof of concept (PoC) for an ecosystem facilitating such transactions. Under this design, commercial banks seeking to make cross-border payments would use a “bridge” to transfer CBDCs from national platforms to a transnational network linking them all together. This bridge is operated through smart contracts, which convert the CBDCs held at the national platforms into standardized tokens used at the transnational network.

The important innovation of the Mariana Project was the development of a PoC for a 24 hours a day and seven days a week interbank FX market based on an Automated Market Maker (AMM). This AMM allowed “decentralised exchange using a bonding curve and a liquidity pool to price and exchange tokenised assets (ie a constant function market-maker)”. Hence, algorithms taking into consideration the quantity of each transacted asset automatically defined the exchange rate, and enabled immediate settlement of the tokens of the different CBDCs. The relevant benefit is that it improves market efficiency, especially due to the elimination of the settlement risk. In principle, it could be understood as a way of enhancing the use of a wider range of currencies for cross-border transactions. Yet, the big problem is that this AMM requires pre-funding, as noted above. Since the cost of the operation is related to the availability of each CBDC in the liquidity pools, exchanges involving currencies with limited international use tend to be very costly—due to the low incentive to pre-fund them. As a result, usage will likely converge around dominant currencies, perpetuating the asymmetries of the IMFS.

Last, but not least, it is important to discuss Project Nexus, which is clearly one of the priorities of the BIS Innovation Hub at the moment. Its goal is to connect the existing fast payment systems (FPS) across different jurisdictions via a common platform. Hence, it is not related to CBDCs, but rather to the interoperability of the existing systems for fast transfers of bank deposits. Experiments were conducted involving the Eurosystem, Malaysia and Singapore in 2022, and the new phase of the project includes Indonesia, Malaysia, the Philippines, Singapore and Thailand. The use of the Nexus platform will involve several fees (e.g. source and destination payment service providers, and source and destination settlement access provider), but the expectation is that there will be an important reduction in the costs involved in cross-border payments. The foreign exchange operations will rely on an FX provider that will quote the exchange rates, meaning that the huge divergence between the bid-ask spreads of the different currencies will be kept. Thus, despite the involvement of several jurisdictions, nothing suggests that the project will encourage wider use of different national currencies. Its objective is solely to lower the time and cost of cross-border payments.

It is therefore clear that the cross-border payment projects currently prioritized by the BIS (Agorá and Nexus) do not aim to promote the use of a wider range of national currencies. Among the projects explicitly supporting multi-CBDC payments (Dunbar and Mariana), operational challenges suggest they are unlikely to significantly boost multi-currency transactions — and there appears to be little effort to address these issues. Consequently, these initiatives are unlikely to alter the existing asymmetries in the IMFS.

5 Final remarks

The current IMFS is marked by significant shortcomings. Recent monetary innovations — particularly wholesale CBDCs — are increasingly seen as ways to address or circumvent these issues. However, countries in the Global North and South perceive the challenges at hand quite differently. Most initiatives so far have focused on the technical limitations of the system — aiming to make cross-border payments faster, cheaper, more transparent, and more accessible. While these issues are indeed important, we argue that this perspective overlooks the geopolitical constraints weighing on countries in the Global South. The structural asymmetries of the current IMFS imply that countries in the Global South have limited policy space and face the risk of being cut off from the global economy in case of sanctions.

Against this backdrop, the article explored the mBridge project through a detailed case study. We started by showing how mBridge allows for cross-border payments to be settled in local currencies, offering a way around dollar dominance. But we showed that a number of enduring challenges are likely emerge if the platform is to be deployed at scale. The challenges that need to be addressed include resolving legal conflicts, amending specific laws, harmonizing regulatory frameworks, and establishing appropriate governance arrangements. Finally, we tried to assess mBridge's disruptive potential — that is, its ability to challenge the currency hierarchy or to facilitate sanctions evasion. Without an appropriate design for the FX market on the platform, the currency hierarchy is likely to reemerge on-bridge. As for the sanctions, we argued that secondary sanctions would likely remain effective, limiting the actual impact of mBridge in this regard.

Nevertheless, mBridge remains the most advanced multi-CBDC platform to date. As such, it may hold potential to support the de-dollarization of the global economy, which has become a priority for several BRICS countries. In addition, Chinese monetary authorities appear strongly committed to reducing US dollar dominance, which could drive future improvements of mBridge. Still, addressing the asymmetries of the IMFS requires more than mere technical fixes. Monetary innovations, while important, are no panacea.

References

- ADRIAN, M. T.; GARRATT, M. R.; HE, M. D.; GRIFFOLI, M. T. M. *Trust bridges and money flows: a digital marketplace to improve cross-border payments*. Washington, DC: International Monetary Fund, 2023.
- ARAÚZ, A.; GARRATT, R.; RAMOS, D. Dinero Electrónico: the rise and fall of Ecuador's central bank digital currency. *Latin American Journal of Central Banking*, v. 2021, n. 2, p. 1-10, 2021.
- ASSOCIATED PRESS. *Europe dissolves Iran trade system that never took off*. 2023.
- ATHANASSIOU, P. L. Wholesale central bank digital currencies: an overview of recent central bank initiatives and lessons learned. In: EUROPEAN CENTRAL BANK. *European System of Central Banks Legal Conference*. Frankfurt: ECB, 2020. p. 191-216.
- BANK FOR INTERNATIONAL SETTLEMENTS. *Central bank digital currencies: motives, economic implications and the research frontier*. Basel: BIS, 2021. (Monetary and Economic Department, n. 976).

BANK FOR INTERNATIONAL SETTLEMENTS. *Project Dunbar*: international settlements using multi-CBDCs. BIS Innovation Hub, 2022a. Disponível em: <https://www.bis.org/publ/othp47.pdf>. Acesso em: 8 maio 2025.

BANK FOR INTERNATIONAL SETTLEMENTS. *Using CBDCs across borders: lessons from practical experiments*. BIS Innovation Hub, 2022b. Disponível em: <https://www.bis.org/publ/othp51.pdf>. Acesso em: 8 maio 2025.

BANK FOR INTERNATIONAL SETTLEMENTS. *Project Mariana*: cross-border exchange of wholesale CBDCs using automated market-makers: final report. 2023a. Disponível em: <https://www.bis.org/publ/othp75.pdf>. Acesso em: 11 maio 2025.

BANK FOR INTERNATIONAL SETTLEMENTS. *BIS-IMF-World Bank Central Bank Conference*: paving the way for cross-border CBDC payments. 2023b. Disponível em: https://www.bis.org/events/230523_bis_imf_wb_conference.htm. Acesso em: 8 maio 2025.

BANK FOR INTERNATIONAL SETTLEMENTS. *Project mBridge reaches minimum viable product stage and invites further international participation*. 2024a.

BANK FOR INTERNATIONAL SETTLEMENTS. *Tokenisation in the context of money and other assets: concepts and implications for central banks*. Basel: BIS; CPMI, 2024b.

BANK OF THAILAND. *Findings from the Multiple Central Bank Digital Currency Bridge (mBridge) Pilot and Next Steps*. 2022. Disponível em: <https://www.bot.or.th/content/dam/bot/documents/en/news-and-media/news/2022/n5865e.pdf>.

BECH, M.; GARRATT, R. Central bank cryptocurrencies. *BIS Quarterly Review*, Sept. 2017.

BERTAUT, C.; VON BESCHWITZ, B.; CURCURI, S. The international role of the US dollar – 2025 edition. *FEDS Notes*, Board of Governors of the Federal Reserve System, 2025. Disponível em: <https://doi.org/10.17016/2380-7172.3856>.

BINDSEIL, U.; PANTELOPOULOS, G. *Towards the holy grail of cross-border payments*. ECB Working Paper, 2022.

BIS INNOVATION HUB. *Project mBridge*: connecting economies through CBDC. 2022.

BIS INNOVATION HUB. *Project Agora – Frequently Asked Questions*. 2024.

BLOOMBERG. BIS debates ending project eyed by Putin to undermine dollar. 2024.

BOAVENTURA, A.; NOGUEIRA, I.; DE CONTI, B. A moeda digital chinesa: um confronto com o poder estrutural do dólar? *Conjuntura Austral*, v. 14, n. 65, p. 7-20, 2023. Disponível em: <https://doi.org/10.22456/2178-8839.127669>.

BULLIONSTAR. Europe's INSTEX payments channel won't help Iran. 2019.

CARSTENS, A. *The future of finance*. Remarks by Agustín Carstens at the Santander International Banking Conference 2024.

CENTRAL BANKING. *BIS to hand over Project mBridge to central banks*. 2024.

CLS. *FX Settlement*: Instant, still distant? The FX ecosystem. 2024.

COHEN, B. J. *Currency power: understanding monetary rivalry*. Princeton: Princeton University Press, 2015.

DE CONTI, B. *Innovation in the realm of money: central bank digital currencies shaping a new international payment system?* 2025. Mimeo.

DE CONTI, B.; PONSOT, J.-F. *State-led digitalization of currencies and payments as a vector for global and domestic de-dollarization?* 2025. Mimeo.

EICHENGREEN, B. Will central bank digital currencies doom dollar dominance? *Project Syndicate*, v. 9, 2021.

EUROPEAN UNION. Implementation of the Joint Comprehensive Plan of Action: Joint Ministerial Statement. External Action, 2018. Disponível em: https://www.eeas.europa.eu/eeas/implementation-joint-comprehensive-plan-action-joint-ministerial-statement_en.

FARRELL, H.; NEWMAN, A. L. Weaponized interdependence: how global economic networks shape state coercion. *International Security*, v. 44, n. 1, p. 42-79, 2019.

FARRELL, H.; NEWMAN, A. *Underground empire: how America weaponized the world economy*. New York: Random House, 2023.

FEDERAL RESERVE BANK OF BOSTON. The Federal Reserve Bank of Boston and MIT release technological research on a central bank digital currency. 2022. Disponível em: <https://www.bostonfed.org/news-and-events/press-releases/2022/frbb-and-mit-open-cbdc-phase-one.aspx>.

FINANCIAL STABILITY BOARD. *Enhancing cross-border payments: stage 1 report to the G20 – technical background report*. 2020.

FINANCIAL STABILITY BOARD. *G20 Roadmap for Enhancing Cross-border Payments: consolidated progress report for 2024*. 2024.

FRITZ, B.; DE PAULA, L. F.; PRATES, D. M. Global currency hierarchy and national policy space: a framework for peripheral economies. *European Journal of Economics and Economic Policies*, v. 15, n. 2, p. 208-218, 2018.

GARRATT, R.; WILKENS, P. K.; SHIN, H. S. *Next generation correspondent banking*. Basel: Bank for International Settlements, 2024. (n. 87).

GINNEKEN, C. L. *Settlement of cross-border transactions through central bank digital currency (CBDC): analysis from a risk management perspective*. 2019. University of Twente.

GLOWKA, M.; NILSSON, T. FX settlement risk: an unsettled issue. *BIS Quarterly Review*, n. 5, 2022.

HE, C.; MILNE, A.; ZACHARIADIS, M. *Central bank digital currencies and international payments*. 2022. (SWIFT Institute Working Paper, n. 2020-002).

IMF. The money revolution: crypto, CBDCs, and the future of finance. *Finance & Development*, Sept. 2022.

KEYNES, J. M. *Activities 1940-44: shaping the post-war world – the clearing union*. In: THE COLLECTED Writings of John Maynard Keynes. London: Macmillan, 1980.

LEDGER INSIGHTS. Five U.S. senators, including Cruz, back Anti-CBDC Bill. 27 feb. 2024. Disponível em: <https://www.ledgerinsights.com/senator-cruz-anti-cbdc-bill/>. Acesso em: 4 nov. 2024.

LEIBBRANDT, G.; TERAN, N. de. *The pay off: how changing the way we pay changes everything*. London, 2021.

McDOWELL, D. *Bucking the buck: US financial sanctions and the international backlash against the dollar*. Oxford: Oxford University Press, 2023.

NEW YORK TIMES. *Blocking medicine to Iran*. 2013.

PANETTA, F. *Demystifying wholesale central bank digital currency*. Speech at the Symposium “Payments and Securities Settlement in Europe – today and tomorrow”, Deutsche Bundesbank, 2022.

RAMBURE, D.; NACAMULI, A. Cross-currency payments and SWIFT. In: PAYMENT Systems: from the Salt Mines to the Board Room. Springer, 2008. p. 43-51.

REUTERS. *Fed’s Powell: more important for U.S. to get digital currency right than be first*. 2020.

REUTERS. *Saudi Arabia joins BIS- and China-led central bank digital currency project*. 2024a.

REUTERS. *BIS to leave China-backed central bank digital currency project*. 2024b.

RICE, T.; VON PETER, G.; BOAR, C. On the global retreat of correspondent banks. *BIS Quarterly Review*, mar. 2020.

SHIN, H. S. *The future monetary system*. 2022. Disponível em: <https://www.bis.org/speeches/sp220626b.pdf>.

THE BANKER. *Explainer: BIS backs out of CBDC project mBridge*. 2024.

WHITE HOUSE. *Executive Order on ensuring responsible development of digital assets*. 9 mar. 2022a. Disponível em: <https://www.whitehouse.gov/briefing-room/presidential-actions/2022/03/09/executive-order-on-ensuring-responsible-development-of-digital-assets/>. Acesso em: 3 jan. 2025.

WHITE HOUSE. *Factsheet: White House releases first-ever comprehensive framework for responsible development of digital assets*. 16 set. 2022b. Disponível em: <https://www.whitehouse.gov/briefing-room/statements-releases/2022/09/16/fact-sheet-white-house-releases-first-ever-comprehensive-framework-for-responsible-development-of-digital-assets/>. Acesso em: 3 jan. 2025.

WHITE HOUSE. *Strengthening American leadership in digital financial technology*. 2025. Disponível em: <https://www.whitehouse.gov/presidential-actions/2025/01/strengthening-american-leadership-in-digital-financial-technology/>. Acesso em: 8 fev. 2025.