ChatGPT

Towards a Shared Global Digital Currency: Historical Context, Current Developments, and Future Outlook

Introduction

A proposal for a **UNIT** – a shared, programmable currency issued and governed by multiple central banks on a decentralized blockchain – builds on decades of international monetary cooperation and recent advances in digital currency. The idea is to create a neutral digital unit of value, collectively managed by central banks, to facilitate seamless cross-border transactions and enhance financial stability. This report provides a deep research-backed analysis of the historical background that led to such proposals, current developments in digital currencies (both public and private), and the future outlook for global monetary coordination. Key case studies and expert opinions are included to illuminate why central banks might be driven toward a collaborative, blockchain-based currency platform.

Historical Background of Monetary Cooperation

Fig. 1: The Mount Washington Hotel in Bretton Woods, New Hampshire – site of the 1944 United Nations Monetary and Financial Conference (Bretton Woods Conference) where 44 Allied nations designed the postwar international monetary system.

Bretton Woods and the First Global Monetary System (1944–1971)

In July 1944, as World War II neared its end, delegates from 44 nations convened in Bretton Woods, NH to create a new international monetary order [1]. The resulting **Bretton Woods system** was the first example of a fully negotiated global monetary regime [2]. It pegged all member currencies to the U.S. dollar (within a 1% band) while the dollar was convertible to gold at $35/oz [3]. This framework aimed to ensure exchange rate stability, prevent the competitive devaluations that worsened the Great Depression, and promote postwar reconstruction and growth [4]. An **International Monetary Fund (IMF)** was established to monitor exchange rates and lend reserve currencies to countries with balance of payments deficits [3], reflecting an unprecedented cooperative effort after years of economic nationalism [5].

Crucially, **John Maynard Keynes** had proposed an even more radical idea at Bretton Woods: a global central bank (the *Clearing Union*) issuing a new international reserve currency called the **"bancor"** [6]. The bancor would be used to settle imbalances, with mechanisms to limit persistent trade deficits or surpluses by adjusting countries' credit lines and requiring surplus nations to recycle excess bancor back into the system [7] [8]. This was meant to correct the flaws of the gold standard by providing an elastic, shared currency unit. However, the adopted plan (championed by U.S. delegate Harry Dexter White) was more limited: instead of a new supranational currency, a stabilization fund (the IMF) was funded by gold and national currencies [9]. In effect, the U.S. dollar became the de facto anchor of the system – a role accepted since the United States held the majority of world gold reserves and emerged economically dominant after WWII [10].

For over two decades, Bretton Woods provided stability, but by the late 1960s serious **global imbalances** emerged. The U.S. ran large balance-of-payments deficits to finance its overseas commitments and domestic programs, leading to an excess supply of dollars abroad (the classic **Triffin dilemma**). Foreign central banks grew concerned that U.S. dollar reserves were over-accumulated and might lose value if the U.S. devalued [11]. In response, the IMF in 1969 created **Special Drawing Rights (SDRs)** as an international reserve asset to supplement official reserves [12] [13]. The SDR was defined initially as a weight in gold equal to 1 USD, and 9.3 billion SDRs were allocated to countries from 1970–1972 [14]. This *composite currency* issued by the IMF was meant to reduce reliance on any single national currency for reserves [13]. However, before SDRs could take hold, the Bretton Woods system unraveled: in August 1971 President Nixon suspended dollar-to-gold convertibility (the "Nixon shock"), and by 1973 major currencies had floated, ending the fixed exchange era [15] [16]. The dollar's peg to gold was abandoned, and countries were no longer obliged to accumulate dollars for parity intervention.

In the aftermath, the IMF redefined the SDR as a **basket of major currencies** (initially the USD, GBP, JPY, and later the EUR) rather than gold [17]. The SDR's value became a weighted average (with the U.S. dollar comprising ~40% today), making it more stable in value than any single currency and reducing exchange rate risk for those holding SDRs [17]. Despite high hopes that the SDR might evolve into a true global currency that could even replace the dollar in reserves, this did not happen. The SDR "basically died at birth" as a widely used reserve medium [18]. After a second small allocation in 1979–81, SDRs largely remained an accounting unit used within the IMF, while countries embraced floating exchange rates and continued to hold reserves mainly in a few key currencies (chiefly the dollar) [18]. To this day, the **U.S. dollar** remains the dominant reserve currency – as of 2009, about 64% of world foreign exchange reserves were in dollar-denominated assets (with the euro a distant second) [19]. This dollar dominance has provided liquidity and convenience for global trade, but also left the international system vulnerable to U.S. economic policies and financial cycles [13].

Global Imbalances and Coordinated Responses

Even after Bretton Woods, **global currency imbalances** have periodically prompted cooperation among major economies. A notable example was the **Plaza Accord** of September 1985, when the U.S., Japan, West Germany, France, and the U.K. (G5 nations) agreed to jointly intervene in currency markets to correct excessive imbalances. At the time, the U.S. dollar had become highly overvalued – it had appreciated roughly 50% in the first half of the 1980s – and the U.S. was running a massive trade deficit [20] [21]. The Plaza Accord is lauded as a successful instance of international economic policy coordination: it aimed to engineer an orderly depreciation of the overvalued dollar and reduce the U.S. trade deficit, which had reached ~3% of GDP [22] [21]. The coordinated interventions and supportive policies worked – by 1987, the dollar's value had fallen about 40%, and by 1989 the U.S. trade deficit (as a share of GDP) was cut by two-thirds [20] [23]. This success was followed by the **Louvre Accord** in 1987, where the same countries agreed to stabilize exchange rates after the dollar had depreciated to a more sustainable level [24]. The Plaza-Louvre episode demonstrated that joint action could address exchange rate misalignments and global imbalances, though economists later noted that broader macroeconomic adjustments (monetary and fiscal policies) were also critical in correcting the deficits [25].

In the 1990s and 2000s, new imbalances emerged as globalization accelerated. By the mid-2000s, the term "**global imbalances**" was used to describe the large U.S. current account deficit mirrored by surpluses in countries like China, Japan, and Germany. Persistent U.S. trade deficits and Asian currency interventions to maintain export competitiveness led to tensions. There was no single accord akin to Plaza for these imbalances, but multilateral forums (G7, G20, and the IMF) urged adjustments. Notably, China's policy of *managing* the renminbi's value drew international criticism; under pressure, China allowed gradual RMB appreciation after 2005 to help reduce its enormous trade surplus. Following the

2008 financial crisis, G20 leaders in 2009 pledged to avoid **competitive devaluations** and work toward more balanced growth. Around the same time, officials revisited the idea of reducing reliance on the dollar: in 2009, China's central bank governor **Zhou Xiaochuan** explicitly called for "a new international reserve currency *disconnected from the sovereign nation*," suggesting an expanded role for the IMF's SDR to replace the U.S. dollar over time [13] [26]. Zhou argued that a dollar-centric system had inherent risks, facilitating global imbalances and transmitting U.S. domestic financial turbulence abroad [13]. His proposal, echoed by economists like Nobel laureate Joseph Stiglitz and a UN expert panel, was to **supplant the dollar with SDRs** as the primary reserve asset [26]. However, this idea met practical and political obstacles – network effects of the dollar's wide use are hard to overcome, and countries still value autonomy over their currency holdings [27].

The recurrence of global imbalances and these episodes of coordination highlight a core problem: the international monetary system lacks a truly neutral reserve currency. The **IMF's SDR** was an early attempt at a shared unit of account, but it never attained the scale or utility of national currencies. Overreliance on a single national currency (the dollar) has been described by officials as potentially "destabilizing" [28]. In a 2019 speech, for instance, Mark Carney (then Governor of the Bank of England) argued that as the global economy evolves, it would be prudent to develop a **"synthetic hegemonic currency"** – essentially a new global digital reserve currency provided *by the public sector*, perhaps through a network of central bank digital currencies [29]. Such a cooperative currency, Carney suggested, could lessen the "domineering influence" of the U.S. dollar on global trade and financial conditions [30]. His remarks hearken back to Keynes's bancor vision, but updated for the 21st century and leveraging modern financial technology.

Current Developments in Digital Currencies and Payments

The Rise of Central Bank Digital Currencies (CBDCs)

In recent years, central banks worldwide have accelerated efforts to digitalize their currencies. As of early 2025, **134 countries** (representing 98% of global GDP) are exploring CBDCs in some form – a dramatic increase from only 35 countries in 2020 [31]. Of these, 66 countries are already in an advanced stage (development, pilot, or launched), including all G20 economies [31] [32]. Several smaller economies have *launched* retail CBDCs for public use, while major economies are conducting large-scale pilots and research:

- **China (PBoC – eCNY)**: China is the front-runner among major powers, having launched pilot programs for a digital yuan (**e-CNY**). It is by far the largest CBDC trial: by June 2024, cumulative transactions via e-CNY reached **¥7 trillion** (≈$1 trillion) across 17 provinces, a nearly fourfold increase from a year prior [33]. The digital yuan has been used in sectors from retail payments to government services, and was even showcased for foreign visitors during the Beijing 2022 Olympics. China's motivations include domestic payment efficiency, financial inclusion, and bolstering the renminbi's international usage [34]. Indeed, officials see the e-CNY as part of a strategy to increase the RMB's global role while reducing reliance on the U.S. dollar system [34].

- **Eurozone (ECB – Digital Euro)**: The European Central Bank is developing a **digital euro**, with an investigation phase completed and pilot projects underway [35]. The digital euro is envisioned as a retail CBDC for use by citizens and businesses across the 20-member euro area, coexisting with cash. A possible launch is expected around 2027–2028 if approved by EU authorities [35]. Additionally, several European central banks are testing **wholesale CBDCs** for interbank and cross-border settlements. For example, the Banque de France and Swiss National Bank ran *Project Jura* (a trial of euro and Swiss franc wholesale CBDCs for cross-border settlement), and the

ECB is involved in **Project mBridge** as an observer, which aims to connect multiple CBDCs (described below).

- **United States (Federal Reserve)**: The U.S. Federal Reserve has studied CBDCs but remains in a research phase. The Fed released a discussion paper in 2022 and is soliciting public input, while emphasizing that no decision to issue a digital dollar has been made. Top officials have expressed caution, citing unresolved questions about privacy, cybersecurity, and the impact on banks. In lieu of a CBDC, the Fed has focused on improving domestic payments via **FedNow** (a real-time gross settlement service launched in 2023). However, the U.S. is not absent from CBDC experimentation: the New York Fed's Innovation Center has been participating in a cross-border wholesale CBDC test (known as **Project Agorá**) with six other major central banks [36]. This signals U.S. interest in ensuring any global digital currency standards align with dollar-based finance, even as political opposition currently blocks issuing a retail CBDC (the U.S. House of Representatives passed a bill in 2024 to prohibit the Fed from offering a direct consumer CBDC) [36].

- **Other Notable Initiatives**: Many other central banks are moving forward. **Japan** began a CBDC pilot in 2023 involving private banks to test a digital yen's feasibility [32]. **India** and **Brazil** have announced plans to roll out their CBDCs (the digital rupee and digital real) in the near term, recognizing both domestic benefits and the importance of not falling behind technologically [35]. In Africa, **Nigeria** launched the eNaira (the continent's first CBDC) in 2021, and although off to a slow start, usage has been gradually increasing after policy incentives. The **Bahamas** (Sand Dollar) and the Eastern Caribbean Currency Union (DCash) were early pioneers of live CBDCs, aiming to improve financial inclusion across island economies [37]. In total, *three* countries have fully launched a sovereign digital currency to date (Bahamas, Jamaica, and Nigeria), and at least **44 CBDC pilots** are currently ongoing around the world [38] [39].

Importantly, central banks are not only focused on domestic use-cases – they are also collaborating on cross-border digital currency projects. A prime example is **Project mBridge**, a joint initiative of the BIS Innovation Hub and the central banks of Hong Kong, China, Thailand, UAE, and others, to build a **multi-CBDC network**. In 2022, mBridge tested real-value cross-border transfers and FX transactions on a custom distributed ledger (the *mBridge Ledger*) [40]. By mid-2024 it achieved a minimum viable product stage, with multiple central banks each running a node and a legal governance framework in place [41]. The platform aims to tackle the longstanding pain points in cross-border payments – high cost, slow speed, and reliance on correspondent banks – by enabling direct, peer-to-peer settlement between participating central banks and commercial banks [42]. According to the BIS, such **multi-CBDC arrangements** on a shared DLT infrastructure could make international payments **instant, cheap, and universally accessible** with final settlement, improving financial inclusion especially where correspondent banking networks have been retrenching [42]. The mBridge pilot's success has attracted interest from dozens of other central banks and organizations observing the project [43]. Likewise, other experiments (e.g. Project **Dunbar** linking multiple CBDCs in a common platform, and Project **Icebreaker** connecting different CBDC systems via a hub) point toward a future where national digital currencies can interoperate across borders. The flurry of activity reflects a broad recognition: **enhancing cross-border payments is among the key drivers of central bank work on wholesale CBDCs** [44].

Private Stablecoins: Digital Dollars and New Challenges

While central banks have been catching up, the private sector spearheaded the first wave of widely used digital currencies pegged to fiat money. So-called **stablecoins** – cryptocurrencies designed to maintain a stable value by pegging to an asset or basket (often 1-to-1 with the U.S. dollar) – have grown

explosively in the past few years. The market capitalization of dollar-backed stablecoins swelled from virtually nothing in 2017 to over $180 billion at its peak in 2022, indicating significant demand for digital, borderless dollars. Three stablecoins in particular dominate usage:

- **Tether (USDT)** – launched in 2014, USDT is the oldest and by far the largest stablecoin (around $80+ billion in circulation in 2023). It is issued by a private company and ostensibly backed by reserves of cash and other assets. USDT became the lifeblood of crypto markets, as it provides a stable nominal anchor for trading volatile cryptocurrencies. It is also used for cross-border value transfer in regions with restricted access to U.S. banking. For example, segments of the population in countries facing sanctions or high inflation (like Russia, Turkey, Argentina) have reportedly turned to USDT as a dollar substitute when local currencies are unstable or dollar banking channels are unavailable. However, Tether's opacity about its reserves and past regulatory issues have raised concerns about its stability in a crisis.

- **USD Coin (USDC)** – launched in 2018 by Circle (in partnership with Coinbase), USDC is a U.S.-regulated stablecoin fully backed by cash and short-term treasuries held by audited financial institutions. As of 2023 its market cap is second only to Tether (peaking around $40+ billion before some contraction). USDC is favored in the U.S. and EU by institutions and fintechs due to its transparent reserve management and regulatory compliance. It is integrated into numerous payment and DeFi platforms. Still, USDC faced a test in March 2023 when one of its reserve banking partners failed (Silicon Valley Bank), temporarily causing USDC to lose its $1 peg until assurances were made. This highlighted that even regulated stablecoins carry operational risks tied to the traditional financial system.

- **Dai (DAI)** – launched in 2017, DAI is an algorithmic stablecoin issued by the decentralized MakerDAO protocol. Rather than being backed by cash reserves, DAI is collateralized by other crypto assets (like Ether and USDC) locked in smart contracts, and its supply expands or contracts through over-collateralization mechanisms. DAI maintains its peg through market incentives and governance by token holders. It pioneered the decentralized stablecoin model, providing an alternative to corporate issuers. However, purely algorithmic stablecoins (notably the TerraUSD project) have shown fragility – TerraUSD's collapse in May 2022 wiped out $40+ billion in value and underscored the **systemic risks** if a widely used stablecoin implodes [45] [46]. DAI itself has increasingly relied on real-world asset backing (like USDC) to maintain stability, blurring the line between decentralized and centralized models.

Stablecoins have had **tangible impact** on the global financial landscape. They facilitate billions in daily trading volume on crypto exchanges and are used for remittances and payments by some users. By offering near-instant, 24/7 dollar transfers without a bank, stablecoins expose the inefficiencies of traditional cross-border payment systems. They also demonstrate a strong market appetite for digital currency functionality that incumbent payment systems did not initially provide. In some emerging markets, dollar-backed stablecoins became a *de facto* dollarization tool, even as authorities worry about capital flight or loss of monetary control. This rise of private digital money has not gone unnoticed by central banks: **60% of central banks in a recent BIS survey said that the emergence of cryptocurrencies and stablecoins accelerated their work on CBDCs** [47]. Policymakers are concerned that if **large tech firms** or consortia issue global stablecoins, they could rapidly scale to hundreds of millions of users via existing networks, potentially disrupting monetary policy and financial stability [48] [49].

The clearest example was Facebook's 2019 announcement of **Libra** – a plan for a global stablecoin backed by a basket of currencies. Libra's proposal envisioned a digital currency that could be used by Facebook's 2+ billion users worldwide, effectively a private-sector **"world currency."** This provoked swift

and intense backlash from governments and regulators across the G20. Fears centered on Libra undermining sovereign currencies, facilitating illicit finance, and giving a tech giant undue influence over money [50] [51]. In response, the Libra project (later rebranded Diem) scaled back its ambitions – shifting to propose individual currency stablecoins (e.g. a LibraUSD, LibraEUR, etc.) rather than a single global coin [52] [53]. It also tightened compliance and promised oversight by Swiss regulators. Despite these adjustments, trust in the project never recovered among authorities. By early 2022, facing regulatory roadblocks, Diem was effectively canceled and its assets sold off. **The most significant consequence of the Libra episode** was that it served as a wake-up call: it *"accelerate[d] work on the development of [central bank] digital currencies,"* as noted by U.S. Federal Reserve Chairman Jerome Powell and other officials [54]. In short, Libra demonstrated that private innovators could potentially leapfrog the slow-moving public sector in designing the future of money – a prospect that jolted central bankers into action.

Shortcomings of Existing Cross-Border Payment Systems

The current infrastructure for cross-border payments – epitomized by the **SWIFT** messaging network and the correspondent banking system – is widely acknowledged to be outdated, slow, and costly. SWIFT, a cooperative founded in the 1970s, connects over 11,000 financial institutions for interbank messages (payment instructions), but it does not actually move money. Transfers still rely on banks holding accounts with each other (nostro/vostro accounts) and passing funds through intermediary banks. This daisy-chain process results in **four key challenges** for international payments identified by the Financial Stability Board: *high costs, low speed, limited access, and lack of transparency* [55].

Users often face hefty fees for cross-border wire transfers – an average cost of about **6.3%** per transaction, according to the IMF, which amounts to $44 billion in fees paid annually by migrants and businesses [56]. A simple remittance can take **several days** to clear through multiple hops and time zones. Many people in developing countries lack efficient access to cross-border banking at all, as correspondent relationships have retrenched (smaller banks in poorer regions find it increasingly difficult to maintain correspondent ties with big international banks, due to profitability and compliance issues). Transparency is also an issue – senders often cannot track the exact path or status of funds in real time, nor easily compare exchange rate spreads and fees before sending. While initiatives like **SWIFT gpi** (Global Payments Innovation) have improved transparency and speed somewhat – with SWIFT claiming a majority of gpi payments now arrive within a day – the system still falls short of the G20 target of most cross-border payments being instant, low-cost, and available 24/7 [57] [58].

The limitations of the correspondent banking model have spurred both fintech companies and central banks to seek alternatives. For instance, fintech remittance providers and networks like RippleNet have attempted to use blockchain or other tech to settle transfers faster. But on a larger scale, the G20 in 2020 launched a **Roadmap for Enhancing Cross-Border Payments**, with 19 building blocks ranging from improving existing payment infrastructures to exploring CBDCs and novel multilateral platforms [59]. One approach in focus is linking domestic instant payment systems across countries; another is using **multi-CBDC platforms** to enable direct central bank settlement (as discussed with mBridge). **Multi-currency interoperability** is a key theme: rather than money moving through many intermediaries, central bank digital currencies could potentially be exchanged on a common network or through automated liquidity pools, drastically simplifying the process.

Geopolitical factors also underscore the shortcomings of the current system. The dominance of SWIFT – and its jurisdictional control by Western governments – means countries can be *de facto* excluded from the global financial system (e.g., Iranian and Russian banks have been disconnected under sanctions). This has incentivized some nations to seek payment channels beyond SWIFT. China's **CIPS** system (Cross-Border Interbank Payment System) processes RMB payments outside SWIFT, and Russia's SPFS

does similar for ruble messaging, though both are limited in reach. The specter of financial sanctions has, in part, driven discussions among blocs like the BRICS about creating alternative payment arrangements less tied to the dollar. Indeed, all five original BRICS countries are now in advanced CBDC pilots, and the BRICS collectively have talked about promoting a new payments system or even a **common currency** to reduce dollar reliance [60]. While a BRICS currency union remains speculative, the interest highlights a willingness among major emerging economies to explore more **cooperative monetary frameworks** if they offer more autonomy from existing systems.

In summary, the convergence of technological possibility (blockchain and digital currencies), market developments (stablecoins revealing user demand), and policy frustration (slow, costly cross-border payments, and dollar-centric risks) has set the stage for serious consideration of a shared global digital currency platform. The **UNIT proposal** – a multi-central-bank-issued digital currency – can be seen as a response to these trends, aiming to marry the credibility of central banks with the efficiency of decentralized fintech.

Future Outlook: A Programmable Currency for a Connected World

Projections for CBDC Adoption and Global Digital Currency Standards

Looking ahead, the momentum behind CBDCs is expected to continue unabated. Surveys by the Bank for International Settlements (BIS) show an overwhelming majority of central banks are actively researching or developing CBDCs. By late 2022, **94% of central banks** surveyed were exploring CBDC options [47]. Many are motivated not just by domestic needs, but by the fear of missing out on setting international standards. The BIS projects that by the end of this decade, we could see around **24 CBDCs in circulation worldwide** (approximately 15 retail CBDCs and 9 wholesale CBDCs) if current plans materialize [37]. These would span both advanced and emerging economies. For example, in 2024–2025, large emerging markets like Brazil and India plan to launch their CBDCs, and by 2028 the Eurozone may follow with the digital euro [35]. If these plans hold, by 2030 the landscape of money could be radically transformed, with billions of people having access to some form of central bank digital money in their wallets or smartphones.

However, **fragmentation** is a significant risk in this future scenario – if each CBDC operates on its own technical and legal standards, cross-border interoperability could suffer, leading to a digital Tower of Babel. Recognizing this, international institutions are pushing for common frameworks. **"CBDCs should not be fragmented national propositions… we need systems that connect countries: we need interoperability,"** emphasized IMF Managing Director Kristalina Georgieva in mid-2023 [61]. To that end, the **IMF is working on the concept of a global CBDC platform** – essentially a set of standards or infrastructure to enable transactions between different countries' digital currencies [62] [63]. The IMF is encouraging central banks to agree on harmonized protocols and regulations, warning that failure to do so would **"create a vacuum likely to be filled by cryptocurrencies"** or other private solutions beyond any single country's control [64]. In other words, there is a window of opportunity for the official sector to shape the rules of the coming digital currency era, but it requires unprecedented cooperation.

Efforts toward standardization are already visible. The **BIS Innovation Hub** has been convening projects like mBridge, Project Dunbar, and Project Icebreaker to test common technical interfaces for CBDCs. Additionally, bodies like the **International Organization for Standardization (ISO)** have extended standards (e.g. ISO 20022 for payment messaging) that could be adopted for CBDC transactions to ensure compatibility. It is conceivable that a **global digital currency "grammar"** will emerge – analogous to how TCP/IP standards allowed the internet to interconnect networks – enabling

a digital dollar, digital euro, digital yuan, etc., to communicate or exchange value seamlessly. Over the longer term, this could lay the groundwork for an even more integrated solution: for instance, multiple CBDCs could be *tokenized* and made interoperable on a shared ledger, or aggregated into a basket token (not unlike a digital SDR) that could function as a universal settlement unit.

Notably, the notion of a **basket-based global digital currency** has been revived. In 2021, the IMF increased SDR allocations to boost global liquidity during the pandemic, sparking discussions on whether the SDR could be modernized via blockchain for wider use. Private ventures have even attempted to create "IMF coin" equivalents – for example, some fintech firms issued tokens unofficially calling them "Digital SDRs" backed by the SDR basket, though these saw limited uptake. Central bankers like Mark Carney have floated the idea of a **public sector global digital currency** that might be delivered through a network of interoperable CBDCs or a synthetic unit leveraging them [29]. While no central bank publicly advocates ceding its own national currency in favor of a global one, there is growing acknowledgement that the *next generation of reserve currency* might be a digital and collective one. As Carney noted, a multi-polar digital currency system could **dampen the domineering influence of the dollar** and better share the burden of global adjustment [30] – though building such a system is a profound governance challenge.

Prospects for Blockchain-Based Monetary Coordination

If current trends continue, we may witness a new era of **monetary coordination via blockchain** or similar distributed technologies. Unlike past coordination – which relied on diplomatic agreements or synchronized policy shifts – future coordination could be *programmed into the currency itself*. A shared currency platform like the UNIT would mean participating central banks collectively manage the supply and rules of the digital currency. Smart contracts could encode agreements on exchange rates or settlement processes, automatically enforcing certain collaborative policies. For instance, cross-border payments in a shared digital unit could automatically respect each jurisdiction's limits or taxes, and monetary policy actions (like interest rate changes on CBDC holdings) could be coordinated in real-time across all holders of the UNIT.

Several early **multi-CBDC experiments** demonstrate the feasibility of such technical coordination. In **Project Dunbar** (a collaboration between the BIS and central banks of Singapore, Malaysia, Australia, and South Africa), a common platform was developed where multiple central banks could issue and exchange their CBDC tokens with shared rules. The successful proof-of-concept in 2021 showed that banks from different countries could use a single system for cross-border settlements, significantly streamlining the process compared to the correspondent banking model. Similarly, **Project mBridge** created a prototype where central bank nodes collectively validated transactions, effectively acting in concert as the operators of a unified ledger [41]. Importantly, mBridge also established a governance framework (a rulebook and legal agreements) tailored to a decentralized yet official system [65]. This highlights that technology is only one side of the coin; governance and legal structures are equally crucial to enable multiple monetary authorities to trust and use a common platform.

A **programmable currency** issued by multiple central banks could offer capabilities well beyond what the current international monetary system provides. For example, money could be coded with attributes that support **policy goals**: imagine a scenario where a global recession leads to coordinated stimulus – a UNIT token could be programmed to increase supply automatically based on a formula agreed by all member central banks, or to carry an interest rate that adjusts depending on an index of global economic conditions. While such ideas are speculative, they illustrate the potential of moving to *algorithmic trust* in addition to institutional trust. Blockchain technology could ensure transparency and verifiability of the shared currency's supply and flows, reducing concerns about any single actor manipulating the system. It could also improve **financial inclusion** if smaller countries gain access to a

reliable digital currency without needing their own complex clearing infrastructure. Indeed, the **inclusivity aspect** is emphasized by proponents – a global digital currency platform could level the playing field, allowing developing nations to transact and integrate more easily in the world economy, rather than being dependent on correspondent banks in wealthy countries [42] [56].

That said, significant **hurdles and risks** lie in the path of such deep monetary cooperation. On the technical front, issues of scalability, cybersecurity, and resilience of a blockchain-based system at a global scale are non-trivial. The volume of transactions and data would be immense; ensuring the system can handle this without outages or vulnerabilities will require cutting-edge solutions. On the governance front, entrusting multiple countries with a shared currency raises questions of **sovereignty and policy alignment**. Each central bank has its own mandate (often centered on domestic inflation and employment). How would monetary policy be set for a shared currency? One approach could be to have the UNIT's value anchored to a basket (like SDR) and let each central bank manage convertibility with its domestic currency. But if the UNIT were widely used domestically in multiple countries, domestic policy might be constrained by the collective policy on the UNIT. There could be tensions if, say, one economy in the consortium is overheating and wants tighter policy while another is in recession and wants looser policy. Reaching consensus in such situations could be as difficult as EU member states negotiating fiscal rules – a political challenge as much as an economic one.

Central banks would also need to navigate the **legal and regulatory framework** for a shared currency. Issues of liability (who guarantees the UNIT's value?), oversight (how to prevent misuse for illicit finance across borders while respecting privacy?), and dispute resolution (which court or mechanism arbitrates issues in a multi-sovereign system?) must be addressed. These are not insurmountable but would require robust multilateral agreements. The IMF or BIS might play a role in facilitating such frameworks, given their experience in setting international financial standards.

The **incentives** for central banks to overcome these hurdles are growing. First, there is the carrot of efficiency and cost-savings – making global payments seamless would boost trade and economic activity, a win for all. The **BIS estimates** that a well-designed multi-CBDC platform could vastly reduce transaction costs and counterparty risks in cross-border settlements [42]. Second, there is a geopolitical incentive: a shared platform dilutes the outsized influence of any single currency, addressing concerns from many countries about the current dollar-centric system [28] [30]. It could also provide a backup system in case of fragmentation of the global economy into rival blocs – if both Western and Eastern central banks (for example) co-govern a unit, it might be more geopolitically neutral. Third, the rise of private crypto-assets presents a competitive threat – central banks know that if they do nothing, stablecoins or foreign CBDCs could fill the demand. A collaborative platform allows them to **set the rules of digital finance** collectively rather than have them imposed by external innovations. Finally, smaller central banks have an incentive to band together because individually they might lack the resources or influence to launch a widely accepted digital currency, but jointly they could achieve critical mass.

Of course, **risks** accompany these incentives. Shared governance means any one central bank gives up a degree of control. The reputational risk of a failure (technological or otherwise) is also significant – if a global central bank currency were to malfunction or be breached, it could shake confidence in central banks' ability to manage the money system. Furthermore, from the perspective of incumbent financial institutions, a global blockchain-based currency could be disruptive. Banks worry about **disintermediation** – if individuals and businesses can hold and transact in central bank money directly (especially a global version), the role of commercial banks in payments might diminish, potentially squeezing their profits and lending capacity [66] [67]. Regulators will have to ensure that any new system coexists with a healthy banking sector, perhaps by maintaining an intermediary role for banks or

limiting how the CBDC is used (many retail CBDC designs are “intermediated” through banks to avoid this very issue [68]).

In terms of **timeline**, large-scale adoption of something like the UNIT is likely years away. Most expect the 2020s to be a period of experimentation and pilot programs, both domestically and in clusters of countries. We may see regional digital currency blocs emerge first (for example, a group of ASEAN countries interoperating their CBDCs, or Gulf states doing the same). If those prove successful and trust builds, they could later connect into a wider network. It’s also possible that the private sector will collaborate with coalitions of central banks to bootstrap a global unit – for instance, by creating payment platforms that automatically swap between different CBDCs in the background, giving users the feel of a single currency. The IMF’s envisioned global platform might serve as a neutral backbone for such conversions [64].

Risks and Driving Forces for Central Bank Collaboration

To summarize the **drivers pushing central banks toward collaboration**: they include the pursuit of greater efficiency (faster, cheaper payments), the need to adapt to the digital economy (where money competes with digital-native alternatives), the desire to enhance financial inclusion (by making currency accessible to anyone with a mobile device globally), and macroeconomic strategy (mitigating the vulnerabilities of a dollar-dominated system and avoiding a scenario where “the future of money passes them by” [69]). On the flip side, **risks and reservations** involve loss of full sovereignty, implementation complexities, and transitional challenges (e.g. how to migrate existing payment flows to a new system without disruption).

Central banks are known for caution, but they also have a mandate to promote stability. The evolution of money and payments is reaching a point where doing nothing may itself be destabilizing in the long run – if, for example, Big Tech or foreign digital currencies undermine the effectiveness of local monetary policy. This creates a strong incentive to innovate in a controlled, cooperative fashion. The **2022 Russian sanctions** episode underscored to many nations that having alternative payment routes is strategically important [70]. It is no coincidence that since that event, the number of cross-border CBDC projects worldwide has more than doubled [70]. There is a palpable movement toward *reinventing correspondent banking* for the 21st century.

Experts anticipate a few possible scenarios in the coming decade. In one, a **few major CBDCs** (digital dollar, euro, yuan) achieve wide international use, and agreements are made to link them via reciprocal swap lines or common protocols – essentially extending the current system into the digital realm but still centered on big currencies. In another, a **new multilateral digital currency** emerges (like a “Digital Bancor” or upgraded SDR) that is adopted for specific purposes such as commodity pricing, reserve management, or trade settlement among willing countries. This could run on a permissioned blockchain governed by a consortium of central banks – very much along the lines of the UNIT concept. In a more transformative scenario, a truly **decentralized yet official network** might support numerous currencies and a global unit side by side, giving end-users the choice to frictionlessly convert value and potentially rendering currency borders less relevant.

Crucially, whatever the outcome, **trust and governance** will remain the linchpins. As Agustín Carstens of the BIS noted, the “soul of money” is trust – people must have confidence that the value of their money is secure and that the institutions behind it are sound. A shared currency will demand a *shared framework of trust* among central banks and users. This could be facilitated by transparent rules (codified in smart contracts), oversight by international institutions, and perhaps new legal constructs. The journey has already begun in a modest form: central banks collaborating on sandbox experiments

and publishing joint research. Over time, this could build the mutual confidence needed to co-manage something as sensitive as a currency.

Conclusion

The vision of a UNIT – a unified, programmable digital currency jointly managed by central banks on a blockchain – is an ambitious culmination of trends in monetary cooperation and financial technology. History shows periodic efforts to mitigate the shortcomings of a fragmented currency system, from the coordinated pegs of Bretton Woods to the SDR and ad hoc accords addressing imbalances. Today's developments, from the rapid rise of CBDCs to the disruptive force of private stablecoins, have created both the *motivation* and the *tools* for deeper monetary integration. A shared digital currency could address long-standing pain points like cross-border payment frictions, and distribute the responsibilities of reserve currency issuance more equitably among nations. As our research has highlighted, major institutions and experts are actively considering how such a system might work – whether through interoperability standards, basket-backed tokens, or multi-CBDC networks.

Significant challenges remain on the road to a global currency union of any sort. Issues of governance, sovereignty, and technical resilience cannot be underestimated. Yet, the incentives driving collaboration are likely to intensify as the world becomes ever more interconnected and digitalized. The next decade will be critical: we will likely see continued expansion of CBDCs and increasing linkage between them. If these efforts succeed and trust deepens, the concept of a **UNIT** could move from proposal to reality, fundamentally reshaping the international monetary architecture. As Mark Carney suggested, relying on a single nation's currency in a multi-polar world may not be sustainable forever [28] [71]. A new form of money, born from cooperation and enabled by technology, may well be the answer to managing globalization's financial challenges in the 21st century. The pursuit of a shared digital currency is, in essence, the pursuit of a more **stable, efficient, and inclusive international monetary system** [55] [42] – a goal that has long been elusive, but now appears closer on the horizon than ever before.

Sources: The information in this report is drawn from a range of credible sources, including historical analyses by the Federal Reserve [6] [9], research from the Federal Reserve Bank of Cleveland [14] [17], recent insights from the Bank for International Settlements and the IMF [61] [64], data from the Atlantic Council's CBDC tracker [31] [33], expert commentary from financial leaders [20] [29], and news reporting by Reuters on the latest developments in digital currencies and global finance [37] [47]. These sources and case studies provide a comprehensive foundation to understand the trajectory toward a potential UNIT and its implications for the future of money.

---

1 4 5 6 7 8 9 Creation of the Bretton Woods System | Federal Reserve History
https://www.federalreservehistory.org/essays/bretton-woods-created

2 3 10 Bretton Woods system - Wikipedia
https://en.wikipedia.org/wiki/Bretton_Woods_system

11 12 13 14 15 16 17 18 19 26 27 Replacing the Dollar with Special Drawing Rights - Will It Work This Time?
https://www.clevelandfed.org/publications/economic-commentary/2009/ec-20090309-replacing-the-dollar-with-special-drawing-rights-will-it-work-this-time

20 21 22 23 24 25 The Real Lessons From the Plaza and Louvre Accords | PIMCO
https://www.pimco.com/us/en/insights/the-real-lessons-from-the-plaza-and-louvre-accords

28 29 30 71 World needs to end risky reliance on U.S. dollar: BoE's Carney | Reuters
https://www.reuters.com/article/business/world-needs-to-end-risky-reliance-on-us-dollar-boes-carney-idUSKCN1VD28C/

31 32 33 36 38 39 60 68 69 70 Central Bank Digital Currency Tracker - Atlantic Council
https://www.atlanticcouncil.org/cbdctracker/

34 50 51 52 53 54 66 67 Facebook's Libra 2.0
https://www.brookings.edu/articles/facebooks-libra-2-0/

35 37 44 45 46 47 Twenty-four central banks will have digital currencies by 2030, survey shows | Reuters
https://www.reuters.com/markets/currencies/twenty-four-central-banks-will-have-digital-currencies-by-2030-bis-survey-2023-07-10/

40 41 42 43 65 Project mBridge reached minimum viable product stage
https://www.bis.org/about/bisih/topics/cbdc/mcbdc_bridge.htm

48 Libra Project: Regulators Act on Global Stablecoins - Intereconomics
https://www.intereconomics.eu/contents/year/2020/number/6/article/libra-project-regulators-act-on-global-stablecoins.html

49 Systemic stablecoin and the defensive case for Central Bank Digital ...
https://www.sciencedirect.com/science/article/pii/S0275531922001040

55 59 Cross-border Payments - Financial Stability Board
https://www.fsb.org/work-of-the-fsb/financial-innovation-and-structural-change/cross-border-payments/

56 61 62 63 64 IMF working on global central bank digital currency platform | Reuters
https://www.reuters.com/markets/imf-working-global-central-bank-digital-currency-platform-2023-06-19/

57 Swift cross-border payment processing speed stretches further ...
https://www.swift.com/news-events/press-releases/swift-cross-border-payment-processing-speed-stretches-further-ahead-g20-target

58 Instant payments: Swift and the future of cross-border transactions
https://www.valantic.com/fsa/swift-and-the-future-of-cross-border-transactions/