

Kiffmeister's Digital Currency Monthly Monitor (February 2025)

Retail central bank digital currency (CBDC) is being explored, or has recently been explored, in 105 jurisdictions (unchanged). Wholesale CBDC is being explored, or has recently been explored, in 23 jurisdictions (unchanged). The Bank of Israel published the results of a survey of public willingness to adopt a digital shekel, the IMF published a report on CBDC technical assistance provided to the Bank of Namibia, and the Bank of Papua New Guinea presented the results of its digital kina experimentation. Also, the European Central Bank (ECB) will expand its initiative to settle transactions on distributed ledger technology (DLT) platforms in wholesale central bank money. Separate stablecoin regulation bills were introduced into the U.S. House of Representatives and Senate.

FYI back issues of the digital currency monthly monitor are available to official sector staff at Club SODA. To access it please send a request to clubsoda@sodapublicmoney.org.

The Crypto Assets Conference (Frankfurt, March 26) will delve into advancements in digital assets, tokenization, crypto-assets, and web3, through insightful talks, interactive debates, and presentations by industry experts and representatives from public institutions. [\[Register here and get a 10% discount\]](#)

The Digital Euro Conference 2025 (Frankfurt, March 27) will explore the future of money with a focus on CBDCs, stablecoins, tokenized deposits, and the intersection of AI and digital ID. When you register, get 20% off the regular ticket price by using the **Kiffmeister20** code! [\[Register here\]](#)

The International Telecommunications Union (ITU), a specialized agency of the United Nations responsible for matters related to information and communication technologies, published a report that I co-wrote on a CBDC reference architecture. Its aim is to work towards standardizing how different CBDCs can be evaluated and compared. The report was derived from the ITU's earlier work on digital currency ontological work and is organized around the IMF's "ASAP" model that describes digital asset systems in terms of four functional layers – access, service, asset, and platform. The resulting reference architecture is based on, and informed by, recent CBDC launches, pilots and proofs of concept (i.e., it does not consider prospective future architectures). [\[ITU\]](#)

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Retail CBDC Developments (see also Annex 1)¹

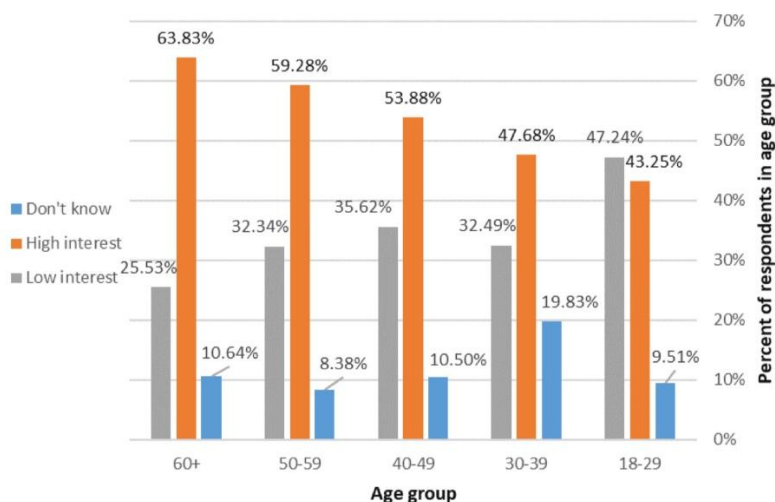
The Bank of Israel (BOI) published the results of a survey of public willingness to adopt a digital shekel. 34% of respondents showed a very high interest in using a digital shekel (8 to 10 on a scale of 1 to 10),

¹ [Retail CBDC](#) is a broadly available general purpose digital payment instrument, denominated in the jurisdiction's unit of account, that is a direct liability of the jurisdiction's monetary authority. [Wholesale CBDC](#) is limited to a set

17% expressed medium-high interest (6 to 7) and 37% showed low interest (1-5). The survey also examined what features of the digital shekel may increase its use. Prominent among them was customer protection against fraud and system errors, the possibility of remuneration, and zero fees for basic functions. In contrast, the main concerns raised by the survey participants were cybersecurity and information security risks, difficulty of use, and lack of accessibility for certain population groups. Unlike findings in some other countries, privacy concerns did not emerge as a dominant issue. Men showed higher interest than women in the digital shekel, and interest was positively correlated with age and with income level. [\[BOI\]](#)

Figure 7: Interest in a digital shekel by age group

Response to the question: “To what extent would you be interested in using a digital shekel?”



The Bank of Ghana expects to launch its retail CBDC in 2025 (contingent on an act of parliament), with offline payments a key function the central bank is confident in delivering. Kwame Oppong, head of fintech and innovation, pointed out that the “technology for offline payments has been around since the 1990s, but the challenge was to ensure that the requirement of frequent reconnection and re-syncing was not obstructive. That means the experience is not truly like offline payments. We wanted to create an instrument that allows people to live off-grid and use it as they would use cash.” [\[OMFIF\]](#)

The IMF published a high-level report on CBDC technical assistance provided to the Bank of Namibia (BoN) in early 2024. The mission did not find a strong case for issuing retail CBDC at present to address gaps in payment systems. Initiatives such as instant payment systems have already set out to address affordability and interoperability issues. Also, major commercial banks, which have committed to these other payment initiatives, may not have additional resources available to support a retail CBDC project. Hence, authorities are advised to establish a compelling rationale for retail CBDC before embarking on a more resource-intensive undertaking. In addition, the mission suggested that the BoN continue developing expertise and capacity in retail CBDC across policy, technology, and legal domains, including through continued engagement with stakeholders. [\[IMF\]](#)

of predefined user groups, typically financial institutions, and based on distributed ledger technology (retail CBDC is platform agnostic – it can run on a centralized or decentralized ledger, or no ledger at all).

Ripple has unveiled a major redesign of its website, wiping out any mention of CBDC. Ripple said the “new look” reflects a refocus on building for the firm’s “next chapter” with a focus on the “internet of value” and transforming the way value moves around the world. Ripple has been a major player in the CBDC space, launching a complete CBDC and stablecoin platform in 2023, and advising countries like Colombia, Bhutan, Palau, Montenegro in their CBDC projects. [[X](#) and [Ripple](#)]

The Bank of Papua New Guinea (BPNG) presented the results of its digital kina CBDC proof-of-concept (POC) experimentation. The POC simulated the core functions of a digital currency system and staff from the BPNG, Japan International Cooperation Agency and the Japanese Embassy tested digital payments, and transaction security, under controlled conditions. Further studies will engage more financial institutions and explore cross-border payments with neighboring countries. [[BPNG](#)]

Other retail CBDC Developments:

- The Bank of the Russia (BOR) has postponed the launch of the digital ruble from July 2025 to a later date to be determined, because more time is needed to work out all the details in the pilot and hold all consultations with banks on the economic model that is most attractive to customers. [[BOR](#)]
- R3 is partnering with IDEMIA to integrate offline payment capabilities into its digital currency platform. The collaboration aims to support the development of CBDCs by enabling secure transactions both online and offline on R3’s Corda blockchain-based system. [[R3](#)]
- According to the latest BearingPoint survey-based European Payment Study, the digital euro has achieved relatively high awareness, with only one-third of respondents having never heard of it. Online shopping is the preferred use case, with an average of 37% across countries. Being free of charge (43%) and accepted everywhere (37%) are the leading requirements. [[BearingPoint](#)]
- Iraqi News reported that the Iraqi central bank is planning to issue CBDC. I report this just for the record because it’s second-hand information (not from the Iraqi central bank) and it oddly describes the CBDC replacing paper notes in transactions “with central banks”. Prior to this, the only evidence I have ever found of Iraq researching CBDC was a [2022 Arab Monetary Fund report](#). [[Iraqi News](#)]

Wholesale CBDC Developments (see also Annex 2)

The European Central Bank (ECB) will expand its initiative to settle transactions on distributed ledger technology (DLT) platforms in central bank money. First, it will develop and implement a safe and efficient platform for such settlements through an interoperability link with the Trans-European Automated Real-time Gross Settlement Express Transfer System (TARGET). [Perhaps these could include the Deutsche Bundesbank “trigger solution” or the Banca d’Italia’s TARGET Instant Payment System \(TIPS\) Hashlink solution, both of which were tested in recent ECB-run trials.](#) Second, [the ECB will look into a more integrated, long-term solution, perhaps based on the Banque de France wholesale CBDC solution, also tested in the ECB trials.](#) [[ECB](#)]

Banco Central do Brasil (BCB) published a report on the first phase of the Drex wholesale CBDC pilot that focused on testing the use of tokenized deposits. The pilot used a private, permissioned version of the Ethereum blockchain, and involved 16 financial institutions. It tested a range of use cases, including the issuance and transfer of tokenized deposits, and the settlement of tokenized government bond transactions. The BCB ran into a trilemma between privacy, programmability, and oversight. Advanced cryptography (like zero-knowledge proofs) can hide transaction details to protect user privacy, but this also makes it hard for regulators to monitor illicit activity, or even for the system to run complex smart contracts. The next phase of the pilot program, which started in November 2024, is focusing on advancing privacy while allowing pilot participants to suggest more use cases. [[BCB](#)]

The Eurosystem's previous DLT settlement trials were associated with a spike in German tokenization. German digital securities issuance in the second half of 2024 totaled €615 million, compared to a total of €235 million cumulatively up until then. Cashlink and Smart Registry (Nyala), who tend to use public blockchains (mostly Polygon), were the most prolific issuers, with almost 90 issues between them in 2024. However, in terms of volume, Deka Bank dominated. Deka Bank hosts its tokenized issuance on the SWIAT platform that uses the permissioned Hyperledger Besu blockchain. [[Deka Investments](#)]

Stablecoin and Tokenized Deposit Developments

U.S. Senator Hagerty introduced the Bill for the U.S. Stablecoins (GENIUS) Act aimed at regulating stablecoins by establishing clear issuance procedures and designating federal and state regulators based on the issuer's size. For example, it would allow state regulators to supervise payment stablecoins of under \$10 billion. Reserve requirements would limit the type of backing collateral to commercial bank deposits, short-term Treasuries, repo and reverse repo involving short-term Treasuries, similar money market funds and central bank reserve deposits. [[Read the GENIUS Bill here](#)]

A discussion draft of the [Stablecoin Transparency and Accountability for a Better Ledger Economy \(STABLE\) Bill](#) was tabled in the U.S. House of Representatives by French Hill and Bryan Steil. It is substantially similar to the GENIUS Act discussed above. For example, GENIUS Bill requires that stablecoins with more than \$10 billion outstanding be federally regulated, unless the relevant state framework is substantially similar to the federal one, but the STABLE Bill allows large stablecoins to remain state regulated. [[Ledger Insights including a tabular comparison of the two bills](#)]

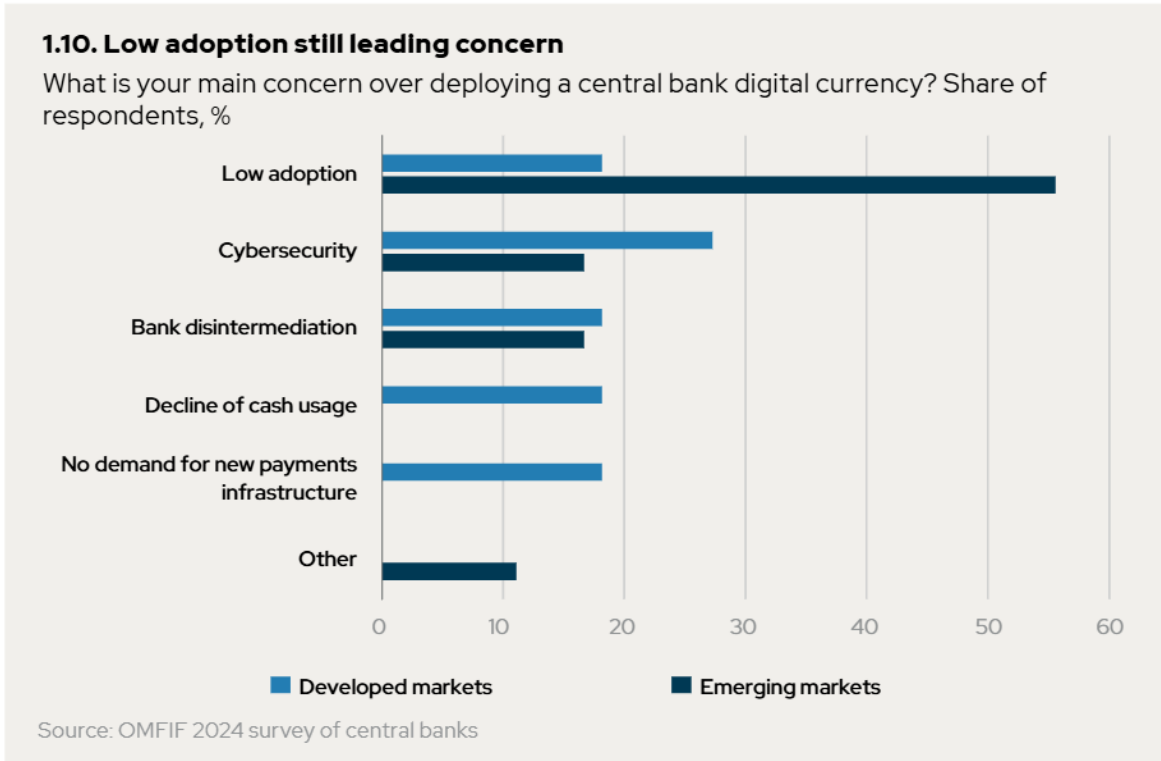
The National Bank of Georgia (NBG) is inviting supervised entities to participate in its Regulatory Sandbox's tokenized deposits project, the goal of which is to create a regulatory framework with the involvement of stakeholders. The country's financial ecosystem does not currently regulate the use and offering of DLT-based deposits and certificates of deposit. [[NBG](#)]

Figure Markets launched a public blockchain-based interest-bearing stablecoin (YLDS) that is reportedly registered as a public security with the U.S. Securities and Exchange Commission (SEC). YLDS accrues interest daily based on the [U.S. Federal Reserve's Secured Overnight Financing Rate \(SOFR\)](#) minus 0.50% with a 0.00% minimum, and pays monthly in USD or YLDS. Holders can buy/sell YLDS using USD and other stablecoins 24x7 on Figure Markets and can off-ramp to fiat during U.S. banking hours. YLDS can be transferred peer-to-peer on the Provenance Blockchain. YLDS is backed by the [same securities that prime money market funds hold](#). [[Figure](#)]

Recent CBDC- and Stablecoin-Related Research

CBDCs: It's Time for Action

The Official Monetary and Financial Institutions Forum (OMFIF) published a report on how central banks' opinions on issuing a retail CBDC are evolving, based on a survey of 34 central banks. Three-quarters of central bank survey respondents expect to issue a CBDC. Where 34% expect to issue one in 3-5 years, 91% have done or will conduct feasibility studies. Financial inclusion and preserving central bank monetary sovereignty are the leading motivations for emerging market central banks (44%) and developed market central banks (50%), respectively. Previously ranked as the most challenging feature to deliver, 20% of surveyed central banks report improved satisfaction with progress in offline payments, up from 0% in 2023. [[OMFIF](#)]



Leverage and stablecoin pegs

The Journal of Financial and Quantitative Analysis will be publishing a paper by Gary Gorton and others on how stablecoins can maintain a constant price even though they face run risk and pay no interest. Stablecoin holders are compensated for stablecoin run risk because they can lend the coins to levered traders. Levered traders are willing to pay a premium to borrow stablecoins when speculative demand is strong. However, when speculative demand falls, stablecoin issuers can keep their debt trading at par only by moving to a safer portfolio or allowing redemptions. Stablecoin issuers will need to make these adjustments quickly to avoid the risk of collapse, which may cause disruptions in the markets they invest in, such as Treasuries, commercial paper, and repos. [[SSRN](#)]

Notes:

The information reported here was compiled from the media and publicly available sources and not verified through official channels.

Kiffmeister was a Senior Financial Sector Expert at the IMF from 2005 to 2021 and now provides digital currency advisory services, including to central banks and international financial institutions. Prior to that, he was at the Bank of Canada for 25 years, where he spent most of his time managing the funding and investment of the government's foreign exchange reserves, including running its interest rate and currency swap book. At the IMF he was part of the team that produces the semi-annual Global Financial Stability Report covering innovative financial products. [Kiffmeister](#) also blogs on fintech at the [Kiffmeister Chronicles](#).

Annex 1: Jurisdictions Where Retail CBDC Is Being Explored (February 2025 updates highlighted)(105+2)	
Where central banks (CBs) have launched or piloted (or soon will)(16)	
Australia (pilot launched 2023)(update; 2024)	Jamaica (launched in 2022)
Bahamas (launched in 2020)Pilot	Kazakhstan (pilot launched 2023)(update, 2025)
China (pilot launched 2022)(update; 2022)	Korea (pilot launched 2023)(update; 2024)
Eastern Caribbean (pilot from 2021 to 2024)	Nigeria (launched in 2021)
Ghana (2023) (update; 2025)	Russia (pilot launched 2023)(update; 2024)
Hungary (pilot launched 2023)(update; 2023)	Turkey (pilot launched 2024)(update, 2025)
India (pilot launched 2022)(update; 2024)	Uruguay (pilot from 2017-2018)
Iran (pilot launched 2024)(update; 2024)	Zimbabwe (Launched 2023)(canceled; 2024)
Where CBs have done proofs of concepts or prototypes (or soon will)(21)	
Bahrain (completed 2022)	Laos (2023)
Bhutan (2023)(completed 2022)	Macau (2024)
Brazil (2024)	New Zealand (2024)
Chile (2024)	Norway (2023)(update; 2024) (update; 2024)
Eswatini (2024)	Solomon Islands (2023)
Euro Area (2024)	Sweden (2024)
Georgia (2023)	Taiwan (2024) (update; 2024)
Hong Kong (2024)(update; 2024)	Thailand (2024)
Israel (2024) (update; 2024 and 2025)	Ukraine (completed 2019)(updates; 2022 and 2023)
Japan (2023)(update; 2024)	United Arab Emirates (2024)
Kyrgyz Republic (2024)(update; 2024)	United States (2025)
Where CBs have explored or are exploring (with year of last update)(68)	
Argentina (2022)(update; 2023)	Mauritius (2023)
Aruba (2024)	Mexico (2022)(update; 2023)
Algeria (2023)	Mongolia (2022)(update; 2022)
Armenia (2023)	Montenegro (2023)
Azerbaijan (2022)(update; 2024)	Morocco (2019)(update; 2022)
Bangladesh (2022)	Namibia (2023)(update; 2025)
Belarus (2023)(update; 2024)	Nepal (2022)
Botswana (2022)	Oman (2022)
Canada (2024)	Pakistan (2022)(update; 2023)
Central Africa States (2022)	Palestine (2021)(update; 2022)
Colombia (2024)	Papua New Guinea (2025)
Costa Rica (2021)	Paraguay (2021)
Curaçao en Sint Maarten (2023)	Peru (2023)(update; 2024)
Czech Republic (2021)	Philippines (2023)(update; 2023)
Dominican Republic (2024)	Poland (2021)
Denmark (2023)	Qatar (2022)(update)
Egypt (2022)	Rwanda (2024)(update; 2024)
Ethiopia (2024)	Saudi Arabia (2023)
Fiji (2022) (IMF confirmed; 2022)(update; 2024)	Singapore (2022)
Guatemala (2021)	South Africa (2024)
Haiti (Bitkòb)(2021)(update; 2022)	Sri Lanka (2022)(update; 2024)
Honduras (2023)	Sudan (2022)
Iceland (2018)	Switzerland (2024)
Iraq (2022)	Tanzania (2023)
Indonesia (2024)	Tonga (2022) (IMF confirmed; 2022)
Jordan (2023)	Trinidad & Tobago (2021)(update; 2022)
Kenya (2023)	Tunisia (2019)(update; 2022)
Kuwait (2022)(update; 2023)	Uganda (2022)(update; 2022)
Lebanon (2020)(update; 2022)	United Kingdom (2025)
Madagascar (2024)	Vanuatu (2022) (IMF confirmed; 2022)
Malawi (2024)	Viet Nam (2021)
Malaysia (2022)(update; 2024)	Yemen (2022)
Maldives (2023)	Zambia (2022)
Mauritania (2024)	
Where CBs have launched and discontinued (2)	
Ecuador (2014-2018)(CBDC?)	Finland (1993-2006)
Sources: Central banks or various news sources per hyperlinks above and CBDCTracker.org .	

Annex 2: Domestic Payments System Focused Wholesale DLT-Based CBDC Experiments (February 2025 updates highlighted)

Central Bank	Project	Platform/Vendor Partner(s)
Reserve Bank of Australia (RBA)(2020)	Interbank payments	Ethereum
Bank of Canada	Project Jasper Phase 1 (2017) Project Jasper Phase 2 (2017)	Ethereum R3 Corda
Colombia (2023)	N/A	Ripple
New York Fed (2023)	Regulated Liability Network U.S. Pilot	DAML/Canton
Philippines (2023)	Project Agila (update; 2024)	Hyperledger Fabric
Monetary Authority of Singapore (MAS)	Project Ubin Phase 1 (2017) Project Ubin Phase 2 (2021) Project Orchid (2023)	R3 Corda Hyperledger Fabric & Quorum N/A
South Africa Reserve Bank (SARB)(2018)	Project Khokha	Quorum
Bank of Thailand (BOT)(2019)	Project Inthanon Phase 1	R3 Corda
Eurozone (Bank of Italy working with Italian Banking Association)	Project Leonidas	R3 Corda

Cross-Border Payments Focused Wholesale CBDC Experiments

Central Bank	Project	Platform/Vendor Partner(s)
Bank of Canada & Monetary Authority of Singapore (2019)	Project Jasper-Ubin	R3 Corda & Quorum
Euro Area (Banque de France (BdF)(2021)) and Tunisia	Cross-Border Payments	N/A
Euro Area (BdF (2022))	Cross-Border Payments	Multiple Platforms
Euro Area (BdF) and Hong Kong Monetary Authority (HKMA)(2024)	Cross-border payments	N/A
HKMA & Bank of Thailand (BOT)(2020)	Project Inthanon-LionRock 1 Project Inthanon LionRock 2	R3 Corda Consensys
Monetary Authority of Singapore (MAS)(2022)	Project Ubin+	N/A
New York Fed and MAS (2023)	Project Cedar Phase II x Ubin+	N/A
Saudi Arabian Monetary Authority (SAMA) and the CBUAE (2020)	Project Aber	Hyperledger Fabric
Bank for International Settlements Innovation Hub (BISIH) and: Swiss National Bank and Euro Area (BdF (2021)) RBA, Bank Negara Malaysia (BNM), MAS, and SARB (2021) HKMA, BOT; the People's Bank of China (PBOC), and CBUAE (2021+) Euro Area (BdF), MAS, SAMA, and Swiss National Bank (SNB) (2023) Bank of England and Euro Area (BdF)(2024) N/A (2024)	Project Jura Project Dunbar Project mBridge (update; 2024) Project Mariana Project Meridian FX Project Rialto	R3 Corda R3 Corda and Quorum HotStuff+ and Dashing Hyperledger Besu and Ethereum N/A N/A

Tokenized Asset Settlement System Focused Wholesale CBDC Experiments

Central Bank	Project	Platform/Vendor Partner(s)
Reserve Bank of Australia (RBA)	Syndicated loan settlement (2021) Project Acacia (2024)	Ethereum N/A
Bank of Canada (2018)	Project Jasper Phase 3	R3 Corda
Euro Area (BdF)(2021))	Securities settlement	Multiple platforms
Euro Area (BdF and Banque Centrale du Luxembourg (2023))	Project Venus	N/A
Euro Area (BdF), HSBC and IBM (2022)	Cross-border securities settlement	Hyperledger Fabric and R3 Corda
Euro Area (European Central Bank (ECB)(2023))	Securities Settlement (update; 2024)	N/A
Hong Kong Monetary Authority (HKMA)(2024)	Project Ensemble	N/A
Reserve Bank of India (2022)	Securities Settlement	N/A
Bank of Korea (2023)	Tokenized Deposit Settlement Carbon credit settlement	N/A N/A
Euro Area (Oesterreichische Nationalbank (2021))	Project Delphi	N/A
South Africa Reserve Bank (SARB)(2022)	Project Khokha 2	R3 Corda
Bank of Thailand (BOT)(2019)	Project Inthanon Phase 2	R3 Corda
Swiss National Bank (SNB)(2020+)	Project Helvetia (update; 2024)	R3 Corda
BISIH, SNB and Euro Area (BdF (2021))	Project Jura	R3 Corda

Other Wholesale CBDC Experiments

Central Bank	Focus	Platform/Vendor Partner(s)
Euro Area (Banco de España)(2022)	All three use cases	Adhara
Bank Indonesia (2022)(Project Garuda)	Use cases not specified (update; 2024)	R3 Corda and Hyperledger Besu
Taiwan (2020)	Use cases not specified	N/A
HKMA	Project Ensemble Sandbox	N/A
HKMA and Kazakhstan (2023)	CBDC Connector	SWIFT
Brazil (2022)	Backing tokenized deposits	Hyperledger Besu
HKMA (2024)	Supporting tokenization markets	N/A
Qatar (2024)	Settlement and capital markets	N/A

