



Digital Rupee – India's CBDC

RESERVE BANK OF INDIA

Digital Rupee

- Digital rupee is a **legal tender** issued by the RBI in digital form, akin to sovereign paper currency.
- It is accepted as a medium of payment and a safe store of value.
- Just like physical currency, digital rupee does not carry any interest.
- On the basis of usage, CBDC can be classified into Wholesale (CBDC-W) and Retail (CBDC-R)



CBDC Retail

- CBDC-R is a general-purpose currency targeted at individuals
- It is freely accessible, and exhibits characteristics of cash, albeit in a digital form.



CBDC Wholesale

- CBDC-W limits access to a pre-defined group of users like financial institutions/ other entities
- Its use is limited to wholesale financial transactions.

Digital Rupee – Key considerations

Least disruptive design

- Model for retail CBDC issuance in the pilot is identical to that of paper currency issuance i.e., RBI will issue CBDC through intermediaries, i.e., banks. Recently, we have announced that non-banks will also be engaged.

Minimise macro-financial implications

- Non-remunerated CBDC can significantly minimise potential disruptions to monetary policy and the financial intermediation process.

Incorporate all possible features of physical currency

- Including feature of anonymity – the design and technological feature is presently under examination.
- Technical and legal ways being explored.

Technological Considerations

- Measures to ensure security and safety are at the core of Digital Rupee, given its digital nature.



Digital Rupee – Key motivations

Motivations may vary specific to jurisdictions, however, our key motivations include:

- **Improvements in currency system and cash management**
 - Efficiency
 - Modernization
 - Cost Reduction
 - Operational efficiency
- **Risk free digital instrument**
 - Potential to provide the desired benefits of any digital private currency
 - No associated damaging social and economic consequences
- **Being future ready**
 - Bringing resilience, efficiency and innovation in payments
 - Adding efficiency to the settlement system
- **Cross-border payments**
 - Innovation
 - Efficiency
- **Financial inclusion**

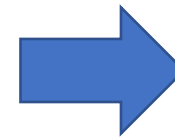


Digital Rupee – Wholesale pilot

The first CBDC pilot in wholesale segment was launched on November 1, 2022 for settlement of secondary market transactions in government securities

Tests immediate and atomic settlements (i.e. simultaneous settlement of funds and securities) and *dealing in central bank currency*.

Provides benefits such as *avoidance of need for collateral to mitigate settlement risk*

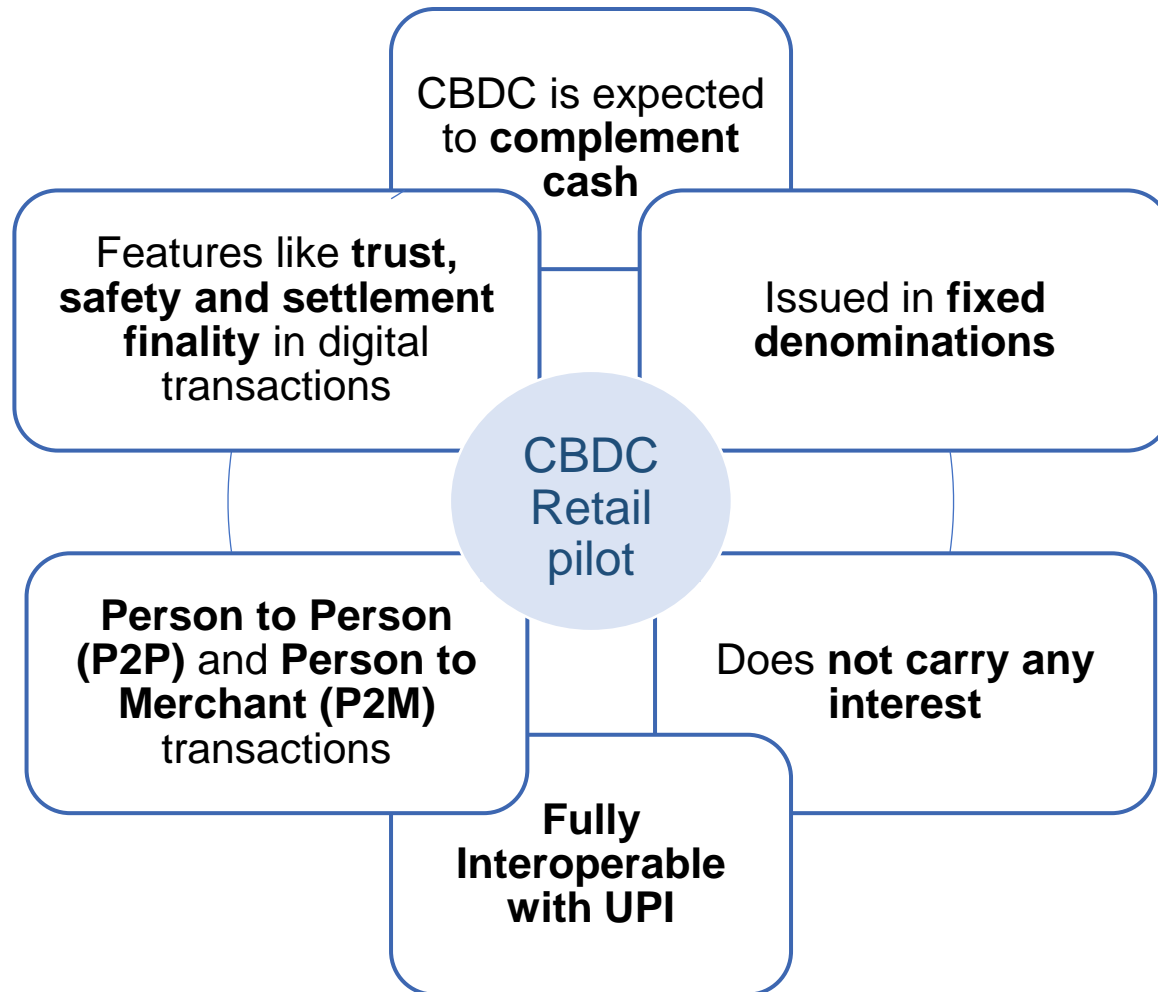


Based on the learnings from the pilot, **additional use cases** for CBDC-W and design choices will be tested in future.

The next phase of the pilot is testing interbank lending/ borrowing in addition to secondary settlement of government securities

Digital Rupee – Retail pilot

The first retail pilot was launched on December 1, 2022 for P2P and P2M transactions.



- A closed user group comprising customers and merchants has been selected from locations across the country including metros, tier 1, tier 2 cities and hilly regions.
- Scaled from 4 banks across 4 cities to **15 banks across more than 81 cities**
- To improve acceptance infrastructure, full interoperability with UPI launched

CBDC Pilots – Future considerations

Cross-border payments efficiency is an important motivation, going forward.



- To enable a more real-time, cost-effective seamless integration of **cross border payment** systems
- An MOU has been signed with Central Bank of United Arab Emirates in the area of fintech initiatives including cross-border CBDC payments
 - Discussion on technical design is currently ongoing. P2P (Person to Person) remittances and P2M (Person to Merchant) transactions are being considered
- To learn about global initiatives and progress, RBI is also exploring various bi-lateral and multilateral cross-border CBDC initiatives.

- Tying the end use of money can be designed to better target the specific use of funds.
- Different technical designs are being explored
- A preliminary pilot use case has been launched in Maharashtra for education payments

Programmability



- Offer availability and resilience when mobile network is not available. Different technical designs are currently under consideration. Both proximity and non-proximity based solution under CUG mode.
- A global Hackathon has also been organized to seek solutions

Offline





e-Rupee as part of RBI's Balance Sheet

THE RESERVE BANK'S ACCOUNTS FOR 2023-24

SCHEDULES FORMING PART OF BALANCE SHEET AND INCOME STATEMENT

(Amount in ₹ crore)

		2022-23	2023-24
Schedule 5:	Notes Issued		
	(i) Notes held in the Banking Department	9.43	10.06
	(ii) Notes in circulation	33,48,218.85	34,77,795.32
	(iii) CBDC-W	10.69	0.08
	(iv) CBDC-R	5.70	234.04
	Total	33,48,244.67	34,78,039.50



Weekly Data on e-Rupee in Circulation – On RBI Website

Part-II			
Table: e₹ in Circulation (week ended May 24, 2024)			
e₹	Denomination (₹)	Volume (pieces in lakh)	Value (₹ crore)
e₹-Retail	0.5	18.5	0.09
	1	37.4	0.37
	2	27.6	0.55
	5	27.6	1.38
	10	21.9	2.19
	20	20.9	4.19
	50	18.4	9.18
	100	21.6	21.61
	200	17.7	35.47
	500	45.4	227.15
	2000	-	-
Total e₹-Retail		257.0	302.2
Total e₹-Wholesale		-	0.10
Total e₹		257.0	302.3
Note: Figures may not add up due to rounding-off of the numbers. Source: RBI.			



DGI 3 Recommendation 11: Challenges to crypto data collection

- Lack of authenticated data due to the inherent decentralised design of Cryptos
- Many activities and processes are also conducted “off-chain”, and there will not be a public or accessible record of such activities.
- Even “on-chain” data provides only limited information into a transaction, as details are often pseudonymised or anonymized.
- Rise of anonymity enhanced cryptocurrencies (privacy coins, mixers and tumblers, decentralized platforms and exchanges)
- The Peer-to-Peer transfer (domestic or cross-border), transfer to un-hosted or self-hosted wallets make it near impossible to track transactions.
- There will always be certain blind spots with regards to the Crypto ecosystem which will not be traceable.



DGI 3 Recommendation 11: Stance of RBI on Cryptocurrency

- Reserve Bank has a considered stand on Cryptos that they have no intrinsic value and are inherently unstable and speculative in nature.
- RBI is of the view that speculative, unstable instruments such as Crypto-assets/Stablecoins may not be classified as 'Digital Money' under the same bracket as a Central Bank Digital Currency which is the direct liability of the Central Bank and hence, is a stable, non-risky form of 'Digital Money'.
- While CBDC related data points can form a part of macro-economic indicators, data points pertaining to Cryptos/Stablecoins could be collected as part of market surveillance exercise thus making clear distinction regarding purpose of collection of data.
- Central Banks and monetary authorities should seriously evaluate whether private currency should replace or exist together with fiat money.



Thank You