

STUDENTS' ECONOMIC FORUM

A monthly publication from South Indian Bank

To kindle interest in economic affairs...
To empower the student community...

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Student's Corner

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Central Bank Digital Currency

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The "SIB Students' Economic forum" is designed to kindle interest in the minds of younger generation. We highlight one theme in every monthly publication. Topic of discussion for this month is **"Central Bank Digital Currency"**

Let's understand Central Bank Digital Currency

Central Bank Digital Currency (CBDC), as the name suggests is referred to the digital money in a digital wallet. A CBDC is issued and regulated by a nation's monetary authority or central bank. It therefore has legal tender and is considered as equivalent to the value and safety in use just as physical money. This form of currency uses crypto or block chain technology and should not be confused with crypto-currencies like Bitcoin.

Features of CBDC

1. CBDC is a sovereign currency issued by the central banks in alignment with their monetary policy
2. It appears as a liability on the central bank's balance sheet
3. Must be accepted by all citizens, enterprises and government agencies as legal tender
4. Freely convertible as commercial bank money and cash
5. Expected to lower the cost of issuance of money

	Cryptocurrency	CBDC
Representation	It is a currency created to substantiate payment.	It is representation of the traditional / commonly used currency
Liability	Not held liable by any sovereign authority	Liable by the central bank
Value	There is no predetermined value	The value is fixed by the central bank
Anonymity	Details regarding the user remains anonymous	The user as well as details regarding source of CBDC are registered
Acceptance	Not accepted by all	Due to its legal tender the same is required to be accepted by all
Control	There is little or no level of control regarding the nature or purpose of transactions	High level of transparency leads to greater control by the central bank

WHY DO WE NEED THE DIGITAL RUPEE?



- To reduce operational costs in managing physical cash and bring efficiency in payments systems



- To boost innovation in cross-border payments



- To quell concerns over money laundering, terror financing, tax evasion with private cryptocurrencies like Bitcoin, Ether, etc.

CBDC in India

The CBDC in India, known as digital Rupee has been launched in both wholesale and retail segments. The digital rupee – wholesale was pilot launched on November 01, 2022 and the use case was limited to secondary market transactions in government securities. The digital rupee – Retail was pilot launched on December 01, 2022 for participating customers and merchants. The digital rupee opens doors to a whole new set of opportunities which are –

1. **Supports a resilient payment system** – The digital rupee is backed by the Reserve Bank of India just like the physical cash. Therefore, it is safe and cannot be manipulated or controlled by individuals who have other motives for acquiring digital payment assets such as speculation for bitcoins.
2. **To avoid the risks of new forms of private money creation** – The new forms of money such as bitcoins, ethereum etc have their own risks and are not backed by any government and hence is not acknowledged as a federal mode of payment. This is a risk to the public who engage in such forms of payments mechanisms.
3. **Supporting competition, efficiency and innovation in payments** – CBDCs are considered as digital currency or currency in an individual's wallet. Therefore, this provides the public further ease in making

payments and therefore boosts the digital payments system. Also since it reduces the number of intermediaries involved, the success rate is higher and hence improves the operational efficiency.

- 4. **Meeting future payment needs in a digital economy** – The digital payments space in India has seen a very high rate of adoption. From groceries to high end tech, payments in the digital space are done for anything and everything. This has led to higher demand for payments mechanisms which safer, faster and has a higher success rate.
- 5. **Improving the availability and usability of central bank money** – Physical cash is trusted by all but is difficult to access especially in areas where banks/ATM are located far way. Moreover, when cash is kept hidden by certain corrupt individuals from the public, there would be a shortage in the supply of cash for circulation. Such shortage is harmful for the economy and hence CBDCs to certain extend help to ensure that currency is made easily available.
- 6. **Support cross border payment** – Since digital rupee is accounted and backed by the central bank, there is greater safety and trust to conduct international transactions using this mode of payment.

Difference between UPI and CBDC

	UPI	CBDC (Digital Rupee)
Mode of payment	Digital	Digital
Nature	Platform for payment	Digital Currency
Sovereign Guarantee	No backing by central bank	Backed by the central bank
Managed by	National Payments Corporation of India	Reserve Bank of India
Holding of money	Money is held in the bank account	Money is held in the digital wallet
Interest payment	Interest will be received since the money is maintained in the bank account.	Interest will not be paid as money is held in the digital wallet.
Intermediaries	Many	Are none in the case where the CBDC is managed by the central bank and few in the case where
International payments	Not possible	Possible
Legal tender	Not accepted by all	Should be accepted by all citizens, corporations and government agencies.

Types of Payment using CBDC

1. Account based payment

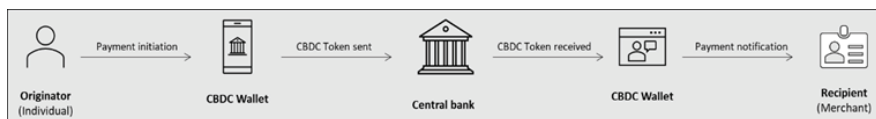
Under Account based payment, both payment and receipt is recorded and completed by the central bank. Instruction to make payment is given to the payment application which inturn notifies the central bank to make the payment to the receiver's wallet / interfacing application. This system would require proper maintenance of transactions inorder to determine the level of account balance. This form of CBDC payment is preferred for CBDC- Wholesale.



Account Based Payment workflow (Source: <https://www.industria.tech>)

2. Token Based payment

Under token based payment, a token is generated and transferred to the receiver through the central bank. A token based CBDC is just like physical cash meaning whoever holds the token is presumed to own them. This form of CBDC payment is viewed as a preferred mode for CBDC- Retail.



Token Based Payment workflow (Source: <https://www.industria.tech>)

Conclusion

Central Bank Digital Currency is the solution for those who were in search of a digital currency which is safe and reliable. It is expected to be a catalyst to change and is not a substitute, but only an alternative option to the other payment modes available presently. With the introduction of CBDC, the government will advance one step further in its fight against corruption and black money. Though in pilot stage, CBDC will enhance the way we transact in the digital space and is expected to be a popular alternative to other modes of payment.

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