CBDC: A need for calibrated approach

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Why in News: After the monetary policy of June 8, RBI Governor Shaktikanta Das announced that the Government follows a measured approach towards Central Bank Digital Currency (CBDC). The RBI launched its first pilot on CBDC, the Digital Rupee-Wholesale (e?-W) on November 1, 2022, and later the Digital Rupee-Retail (e?-R) on December 1, 2022.

About e-rupee

While the Digital Rupee-Wholesale is restricted to settlement of secondary market transactions in government securities, the Digital-Rupee Retail covers a limited user group comprising 13 banks, 50,000 customers, 5,000 merchants and 7.7 lakh transactions.

Varied forms of CBDCs

Based on their usage and functions, CBDCs are categorised into retail (CBDC-R) and wholesale (CBDC-W).

CBDC-R is meant for retail consumption and can be availed by all including the private sector, non-financial consumers and businesses. On the other hand, CBDC-W is meant for interbank transfers and wholesale transactions by financial institutions.

CBDC-R can be particularly useful for a regulator to ensure financial inclusion. Being digitally based, it can bolster payment mechanisms. On the other hand, CBDC-W can help improve the efficiency of interbank payments or securities settlement, as has been observed in Project Jasper, Canada's CBDC project, as well as Project Ubin— Singapore's CBDC project.

Now coming to the question of accessibility; in other words— how the asset would flow in the supply chain. The two suggested model types are the token-based system and the account-based system

The former would flow into circulation like a banknote and can be electronically transferred from one entity to another. Token ownership is prima face verified— the possessor of e? is by default deemed as its owner, just like banknotes. Only the authenticity of the token is to be verified

In contrast, the account-based system would require the payer to verify that he has the authority to use the account and in possession of sufficient balance to carry forth a transaction – similar to existing digital transaction methods. It requires maintaining a record of balances and transactions of all holders of the CBDC and indicate his/her ownership of monetary balances

The main benefits of CBDC are:

Reduced currency management cost: As of March 2020, the total value of bank notes in circulation was ?24.21-lakh crore, the same zoomed to ?31.06-lakh crore by March 2022. Besides, the total cost of printing the currency notes escalated from ?4,012 crore in FY21 to ?4,985 crore in FY22. Though issue of CBDC may entail substantial fixed infrastructure costs, subsequent operating costs will be negligible.

Negligible settlement risk: If an importer/exporter wants to settle trade transactions in foreign currency, exchange rates may vary constantly, and also the settlement risk may arise due to time zone differences. However, CBDC may protect the interest of the importer/exporter by settling the transaction on real-time basis. CBDCs could eliminate the need for inter-bank settlement and enable frictionless cross-border payments.

Financial inclusion: Distributing physical cash in certain locations, such as hilly terrains and islands, is a challenge and fraught with risks. However, to the extent that it becomes possible for CBDC to work regardless of power or internet connectivity, it becomes an advantage.

Enhanced transparency: End use of funds lent by banks would be ensured with CBDC due to its digital footprint.

Cyber security: Digital rupee transactions are highly secured and encrypted under distributed ledger technology.

Formalisation of economy: While cash is still the king, digital innovations are pushing central banks to address significant risks emanated from cryptocurrencies, such as money laundering, financing of terrorism, parallel economy, etc.

Challenges with CBDC

The concept note highlighted certain concerns pertaining to data collection and anonymity, cyber-security, dispute resolution and accountability.

About concerns pertaining to data collection and anonymity, the apex regulator notes that there emerges a possibility that anonymous digital currency would facilitate a shadow economy and illegal transactions. Regulators require insight to identify suspicious transactions, such as those pertaining to money laundering and terrorism financing, among others. Addressing this concern, the IMF recommends instituting a specific threshold (say $10,000) for regulatory oversight.

The apex regulator recognises there is an increased probability of payment-related frauds in countries with lower financial literacy levels. It states the ecosystem would be a “high-value target” since it is important to maintain public trust. Ensuring financial literacy and cyber-security thus becomes very important.

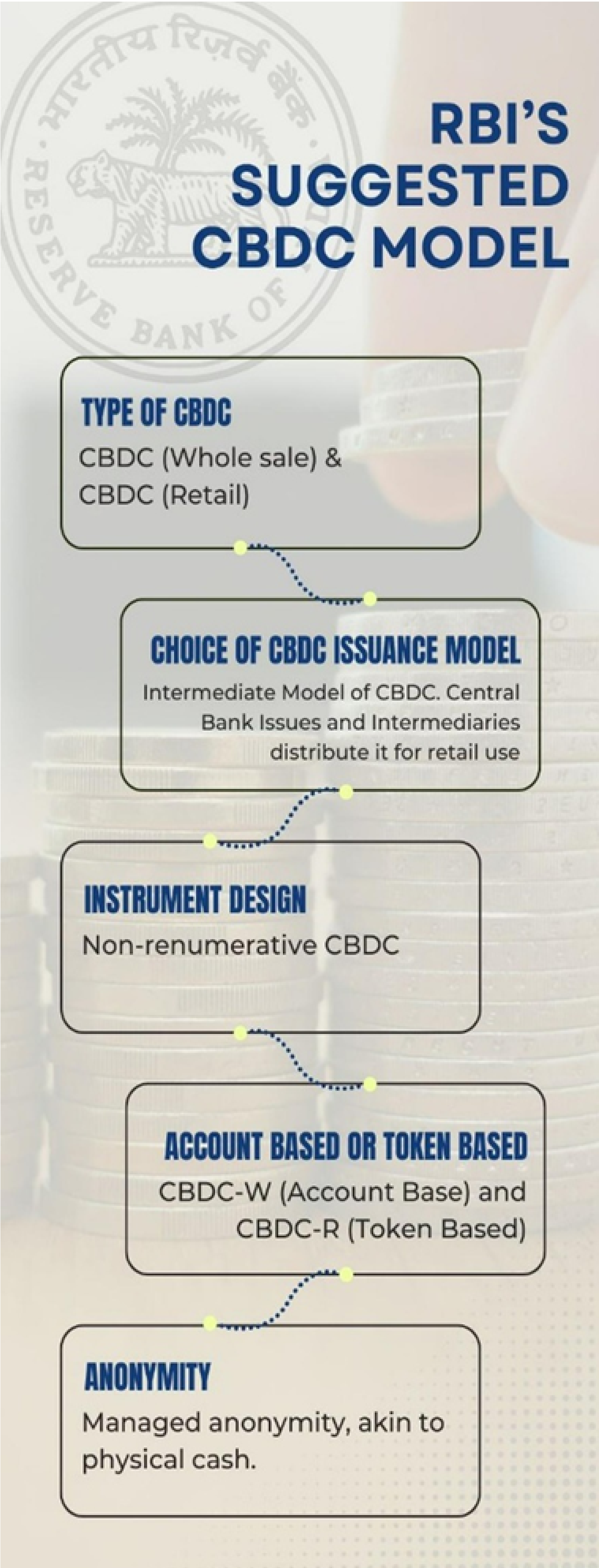
CBDCs would also need infrastructure for facilitating offline transactions. The risk of ‘double spending’ is spurred when operations head offline. This is because a CBDC unit could potentially be used more than once with the ledger requiring an internet connection to update. However, RBI believes it could be mitigated to a large extent by technical solutions and imposing limits on offline transactions. It acknowledges the importance of enhancing offline capabilities for wider use, pointing to only 825 million of a total population of 1.40 billion having internet access in India.

RBI would also explore the possibility of cross-border payments using CBDCs. In a related context, the IMF has observed that fragmented international efforts to build CBDCs would likely result in interoperability challenges and cross-border security risks. “Countries are understandably focussed on domestic use, with too little thought for cross-border regulation, interoperability and standard-setting,” it said.

And lastly, financial implications would be difficult to ascertain considering that the potential demand would be subject to the implementation framework. However, RBI highlights two broad concerns in the event of a financial crisis. There could either be a potential ‘bank run’, in other words, people withdraw their money rapidly from banks, or a financial disintermediation that would prompt banks to rely on more expensive and less stable sources of funding

The Way Ahead

The switch from cash to CBDC might just be a transition from one asset to another and might not impact the banking sector’s balance sheet. Similarly, as per the RBI, a switch from deposits to CBDC would shrink the balance sheet similar to withdrawal of banknotes from an ATM or branch.



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