CENTRAL BANK DIGITAL CURRENCY (CBDC) IN INDIA- A CONCEPT NOTE

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Abstract

Traditional banking and financial systems are transforming across the globe owing to the effects of the Covid-19 pandemic, shifting trading dynamics, and pervasive technological advancements. Post demonetization in 2016 and the launch of digital India initiative, the government of India has been stressing on the use of digital space and digital money. As the world progresses, technology intervention is leading to digitization of services as well as ways of working across industries. We are now entering in to a new phase of banking, with the digitization of currency being the first step in this evolution as more innovative payment methods are being developed. Central banks have now started to develop their own digital currencies, also called central bank digital currencies or CBDCs. The current digital landscape of India makes a strong case for introducing a Central Bank Digital Currency (CBDC). An increase in the availability of low-cost smart phones and low cost 4G data has further deepened digitization in India. Despite a diverse range of virtual currencies being available, penetration of private digital currencies remains low which offers a strong case for India's own digital fiat rupee that will promote a financial inclusion and increase demand for real money balances.

Key words:- Demonetization, DigitalIndia, Digital Money, CBDC, Financial Inclusion

Reserve Bank of India also known as the Central Bank plays a pivotal role in the Indian financial system, it is an important pillar of the financial ecosystem. Fundamentally, it has always provided quick, seamless, efficient, and stable solutions for the economy. These quick and seamless solutions include payment systems and the issue of currency.

Recent developments in technology made it possible for India, as a nation, to make significant progress towards innovation in digital payments. India has made impressive progress towards innovation in digital payments. A separate

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law for Payment and Settlement Systems has been enacted, which has enabled an orderly development of the payment eco-system in the country. The present state-of-the-art payment systems that are affordable, accessible, convenient, efficient, safe, secure and available 24x7x365 days a year are a matter of pride for the whole nation as, in many cases, India is far ahead of the most developed countries also in this area.

India introduced the first pilot in the Digital Rupee - Wholesale segment (e[1] -W) on November 1, 2022; the Reserve Bank has announced the launch of the first pilot for retail digital Rupee (e[1] -R) on December 01, 2022. This places India as one of the front runners as most of the major economies of the world have not introduced the Central Bank Digital Currency (CBDC) as yet.

This striking shift in payment preference has been due to the creation of robust round-the-clock electronic payment systems such as Real Time Gross Settlement (RTGS) and National Electronic Funds Transfer (NEFT) that has facilitated seamless real-time or near real-time fund transfers. In addition, the launch of Immediate Payment Service (IMPS) and Unified Payments Interface (UPI) for instant payment settlement, the introduction of mobile-based payment systems such as Bharat Bill Payment System (BBPS), and National Electronic Toll Collection (NETC) to facilitate electronic toll payments have been the defining moments that has transformed the payments ecosystem of the country and attracted international recognition. The convenience of these payment systems ensured rapid acceptance as they provided consumers with an alternative to the use of cash and paper for making payments. The facilitation of non-bank FinTech firms in the payment ecosystem as PPI issuers, Bharat Bill Payment Operating Units (BBPOUs) and third-party application providers in the UPI platform have further strengthened the adoption of digital payments in the country.

The concept of money has experienced evolution from Commodity to Metallic Currency to Paper Currency to Digital Currency. The changing features of money are defining the new financial landscape of the economy. Further, with the advent of cutting-edge technologies, the digitalization of money is the next milestone in monetary history. Advancement in technology has made it possible for the development of a new form of money, viz. Central Bank Digital Currencies (CBDCs).

Objective of the Study

The article attempts to document Central Bank Digital Currency and highlight the benefits that India faces with its introduction.

Concept

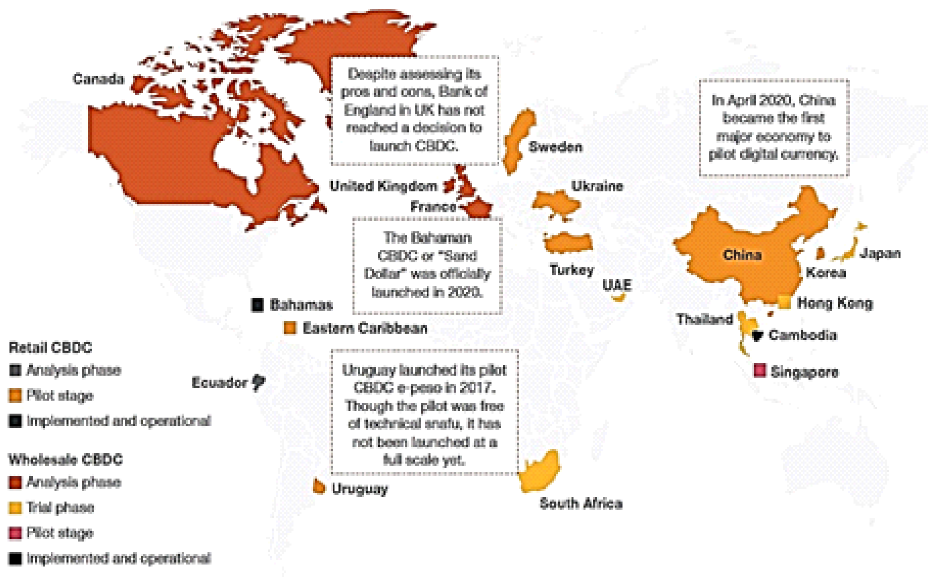
CBDC is a digital form of the fiat currency issued by the central bank of a country and is in lieu of the paper/metal currency issued which is the direct liability of the central bank- that is, it is denominated in the national unit of account. CBDC act as a safe, government-backed and ultimate medium of settlement by eliminating all claims that occur during a transaction.

Reserve Bank of India broadly defines CBDC (Digital Rupee (e[1])) as the legal tender issued by a central bank in a digital form. It is akin to sovereign paper currency but takes a different form, exchangeable at par with the existing currency and shall be accepted as a medium of payment, legal tender and a safe store of value. The Government of India announced the launch of the Digital Rupee — a Central Bank Digital Currency (CBDC) from FY 2022-23 onwards in the Union Budget placed in the Parliament on February 01, 2022.

Global Scenario

Across the globe, more than 60 central banks have expressed interest in CBDC, with a few implementations already under pilot across both Retail and Wholesale categories and many others are researching, testing, and/or launching their own CBDC framework. As of July 2022, there are 105 countries in the process of exploring CBDC, a number that covers 95 per cent of the global Gross Domestic Product (GDP). 10 countries have launched a CBDC, the first of which was the Bahamian Sand Dollar in 2020, and the latest was Jamaica's JAMDEX. Currently, 17 other countries, including major economies like China and South Korea, are in the pilot stage and preparing for possible launches. China was the first large economy to pilot a CBDC in April 2020 and it aims for widespread domestic use of the e-CNY by 2023. Increasingly, CBDCs are being seen as a promising invention and as the next step in the evolutionary progression of sovereign currency.

Figure 1
Stages of global CBDC adoption



Source: PwC Global CBDC Index 2021

Categories of CBDCs

CBDC can be broadly divided in two major categories based on usage within a country's financial and monetary ecosystem. General purpose or Retail (CBDC-R) and Wholesale (CBDC-W). Retail CBDC (e[1] -R) would be potentially available for use by all- private sector, non-financial consumers and businesses, while wholesale CBDC (e[1] -W) is designed for restricted access to select financial institutions. While wholesale CBDC is intended for the settlement of interbank transfers and related wholesale transactions, Retail CBDC is an electronic version of cash primarily meant for retail transactions.

Reason for introducing CBDC in India

CBDC, being a sovereign currency, holds unique advantages of central bank money- trust, safety, liquidity, settlement finality and integrity. The key motivations for exploring the issuance of CBDC in India, among others, include reduction in operational costs involved in physical cash management, fostering financial inclusion, bringing resilience, efficiency, and innovation in the payments system, adding efficiency to the settlement system, boosting innovation in cross-border payments space and providing public with uses that any private virtual currencies can provide, without the associated risks.

The use of the offline feature in CBDC would also be beneficial in remote locations and offer availability and resilience benefits when electrical power or mobile network is not available. CBDCs will provide the public with the benefits of virtual currencies while ensuring consumer protection by avoiding the damaging social and economic consequences of private virtual currencies/ Crypto currencies.

The features of CBDC include:

- A sovereign currency issued by Central Bank in alignment with the monetary policy.
- Fungible legal tender for which holders need not have a bank account.
- Expected to lower the cost of issuance of money and transactions.
- Appears as a liability on the central bank's balance sheet.
- Freely convertible against commercial bank money and cash.
- To be accepted as a medium of payment, legal tender, and a safe store of value by all citizens, enterprises and government agencies.

Benefits of CBDC

***It is centralised*:**

Issued by the Reserve Bank of India, CBDC will come with an absolute guarantee, thereby marking a huge difference between crypto currencies and CBDC. CBDC is backed by the country's central bank; however, crypto currency use in India on the other hand has no underlying asset and is absolutely private money.

***Offers transparency*:**

CBDC being a legal-tender-based option brings more transparency to the entire online transaction. As a user-friendly form of electronic central bank money, it will add safety and liquidity to

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transactions, thereby making cross-border payments more transparent. Moreover, since it is centrally driven, CBDC will ensure complete tax and regulatory compliance as well.

***Ease of use*:**

The digital revolution is taking the world by storm and no other area has witnessed such metamorphosis as payment and settlement systems, resulting in an array of digital options for the common man. Consumers now have a huge range of options to choose from when selecting a payment method to complete a transaction. They make this selection based on the value they attribute to a payment method in a certain situation as each payment mode has its own use and purpose.

***Reduction in cost associated with physical cash management*:**

The Environmental, Social, and Governance (ESG) cost is borne by four stakeholders – Central banks, private banks, businesses, and the general public. CBDC influences the overall value of money issued up to the point that it reduces the operational costs and the costs involved in delays in reconciliation and settlement. Although creating/issuing a CBDC, may entail fixed infrastructure costs, however, the subsequent marginal operating costs shall be low.

***MSME Lending*:**

Instant lending to Micro, Small and Medium Enterprises (MSMEs) in India can be possible with the help of CBDC. As more MSMEs use CBDC, banks can draw up a more accurate borrower risk profile. This can be used to promptly meet MSME financing requirements. Moreover, the stimulus for MSMEs can also be disbursed quickly from the central bank. This can help businesses grow and sustain themselves during periods of uncertainty where the availability of cash is limited. CBDC's traceability can help MSMEs prove their credit worthiness. Moreover, it leads to transparency and can be extremely resilient to forgery.

Way Forward

- In India, out of the nearly 140 crore population, 82.5 crore people have internet access. This means many Indians will not be able to use CBDCs due to connectivity unavailability. To ensure the widespread use of CBDC, offline capabilities need to be incorporated.
- CBDC ecosystems may be at similar risk for cyber-attacks as the current payment systems are exposed to. The cyber security considerations need to be taken care of both for the item and the environment. For example, while the token creation process should ensure the highest levels of cryptography to ensure security at the item level, the transaction of tokens also needs to be secured to ensure a trusted environment.

Conclusion

Introduction of CBDC has the potential to provide significant benefits, such as reduced dependency on cash, higher seignior age due to lower transaction costs, reduced settlement risk and so on. Introduction of CBDC would possibly lead to a more robust, efficient, trusted, regulated and legal tender-based payments option. There are associated risks, no doubt, but they need to be carefully evaluated against the potential benefits. It would be RBI's endeavor, as we move forward in the direction of India's CBDC, to take the necessary steps which would reiterate the leadership position of India in payment systems.

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