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MOVING TOWARDS A DIGITAL CURRENCY ECONOMY

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1. INTRODUCTION

Digitalization refers to the generation, storage, and processing of data in electronic technology. The discourse on the role of digital initiatives was primarily initiated in the Economic Survey and the Union Budget of 2022-23. The discussion stretches from the use of digital technology for the introduction of a digital currency to the use of the same for monitoring the real-time economic growth of the country using cartographic techniques and satellite imaging.

The Union Budget 2022-23 is thus unique in the sense that it proposed to give a digital thrust to the pandemic-stricken Indian Economy through several measures such as Digital Currency, Digital Payments and Banking, Ayushman Bharat Digital Mission, Digital University, Digital Ecosystem for Skilling and Livelihood, and so on. Since the area is really vast and demands in-depth discussions, the canvas of the present article is restricted to Digital Currency.

Honourable Finance Minister, Nirmala Sitaraman, in her Budget Speech 2022-23, stressed the importance of the digital currency (para 111). She said that "Introduction of Central Bank Digital Currency (CBDC) will give a big boost to the digital economy. Digital currency will also lead to a more efficient and cheaper currency management system. It is, therefore, proposed to introduce Digital Rupee, using blockchain and other technologies, to be issued by the Reserve Bank of India starting 2022-23."

CBDC is the legal tender issued by a central bank in digital form (RBI, 2021). It is the same as a fiat currency[1] and is exchangeable one-to-one with the fiat currency. Only its form is different. It is inspired by Bitcoin and blockchain-based cryptocurrencies with Sovereign status. Bitcoin is a decentralized digital currency, without a central bank or single administrator, that can be sent from user to user on the peer-to-peer Bitcoin network without the need for intermediaries, while blockchain refers to a distributed database that is shared among the nodes of a computer network. As a database, a blockchain stores information electronically in digital format. The Bahamas, Nigeria, and the Eastern Caribbean Currency Union have adopted digital currencies to date. Seven countries involved in the Eastern Caribbean Currency Union are Antigua and Barbuda, Dominica, Grenada, Montserrat, St. Kitts and Nevis, Saint Lucia, and St. Vincent and the Grenadines.

The concept of digital currency is now being discussed worldwide by Central banks, economists and Governments. A 2021 BIS (Bank for International Settlements)[2] survey of central banks, where 65 percent of central banks across the world have participated, found that 86% of central banks were actively researching the potential for CBDCs, 60% were experimenting with the technology, and 14% were deploying pilot projects.

2. WHY DO WE NEED DIGITAL CURRENCY?

The digital economy is the economic activity that results from billions of everyday online connections among people, businesses, devices, data, and processes. The backbone of the digital economy is hyper connectivity, which means growing interconnectedness of people, organizations, and machines that results from the Internet, mobile technology, and the Internet of Things (IoT). The Internet of Things (IoT) is a system of interrelated computing devices, mechanical and digital machines, objects, animals, or people that are provided with unique identifiers (UIDs) and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction.

The commonly agreed advantages of CBDC include (Sankar, 2021)

a) Digital currency facilitates negative interest rate monetary policy. Negative interest rates can boost economic activity by encouraging banks and other entities to lend or invest excess funds rather than pay penalties on funds in bank accounts. A negative interest rate policy (NIRP) occurs when a central bank sets its target nominal interest rate at less than zero percent. This extraordinary monetary policy tool is used to strongly encourage borrowing, spending, and investment rather than hoarding cash, which will lose value to negative deposit rates. Officially set negative rates have been seen in practice following the 2008 financial crisis in several jurisdictions, such as in parts of Europe and in Japan.

b. With the decreased usage of paper currency, central banks want to popularize a more acceptable electronic form of currency.

c. The increasing use of private currencies such as Bitcoin, Ethereum, Tether, and Cardano is raising a threat to central banks. So, the central banks have to seek to meet the public's need for digital currencies.

[1] *Currency backed by the Government Guarantee*

[2] *4The Bank for International Settlements (BIS) is an international organization that serves central banks and other financial authorities across the globe to support their pursuit of monetary and financial stability through international cooperation. It also acts as a bank for central banks.*

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d. CBDC reduces the need for interbank settlement and its connected risk in the settlement system since it is transacted like cash.
e. Another important advantage of digital currency is that it enables a more real-time and cost-effective globalization of payment systems. It is conceivable for an Indian importer to pay its American exporter on a real-time basis in digital Dollars, without the need of an intermediary. This transaction would be final, as if cash dollars were handed over, and would not even require that the US Federal Reserve system is open for settlement. Time zone difference would no longer matter in currency settlements.

f. Cost of printing, transporting, storing, and distributing currency can be reduced.

Thus, digital currency can boost the digital economy and lead to a cheaper and efficient currency management system compared to the traditional hub and spoke system.

RBI conducted a pilot survey on retail payment habits of individuals in six cities between December 2018 and January 2019, with a focus on the awareness and usage of digital payments. The six cities include Delhi, Mumbai, Kolkata, Chennai, Bengaluru, and Guwahati. As per this Survey on Retail Payment Habits of individuals (SRPHi), cash remained as the most preferred mode of payment for receiving money for regular expenses, and was followed by digital mode. Participants also mentioned their preference for cash for small value transactions (with an amount up to Rs. 500), meanwhile digital modes of payments are preferred for transactions involving higher amounts.

India has a unique case of increasing proliferation of digital payments in the country, coexisting with sustained interest in cash usage, especially for small-value transactions. To an extent, the preference for cash represents a discomfort for digital modes of payment; CBDC is unlikely to replace such cash usage. Even though COVID-19 has altered this scenario to an extent, still, in many rural as well as potentially tax-bypassing areas, the issue still prevails.

So, in a country like India, where most people prefer cash for small transactions, how much will be the incidence and the intensity of the use of digital currency is the blind spot the policy makers are yet to focus on. CBDC will take more time than envisaged to replace cash.

Apart from the difficulties in penetration into the common market, there are still some more challenges ahead for digital currencies (Sankar, 2021).

3. CHALLENGES AHEAD

1. Advancement of Technology

Absorption of CBDCs in the economy is subject to technology preparedness. The creation of a population-scale digital currency system is contingent upon the evolution of high-speed internet and telecommunication networks and ensuring the wider reach of appropriate technology to the general public for storing and transacting in CBDCs. In developing countries, a lower level of technology adoption may limit the reach of CBDCs and add to existing inequalities in terms of accessing financial products and services

2. Risk of Cybersecurity

CBDC ecosystems may be at similar risk for cyber-attacks as the current payment systems are exposed to. Further, in countries with lower financial literacy levels, the increase in digital payment-related frauds may also spread to CBDCs. Ensuring high standards of cyber security and parallel efforts on financial literacy is therefore essential for any country dealing with CBDC.

3. Reduction in transaction demand for bank deposits. The introduction of CBDCs can cause a reduction in the transaction demand for bank deposits. Since transactions in CBDCs reduce settlement risk as well, they reduce the liquidity needs for settlement of transactions (such as intra-day liquidity). In addition, by providing a genuinely risk-free alternative to bank deposits, they could cause a shift away from bank deposits. (Dyson and Hodgson, 2016).

If banks begin to lose deposits over time, their ability to create credit is constrained. Since central banks cannot provide credit to the private sector, the impact on the role of bank credit needs to be well understood.

4. CONCLUSION

The effective use of digital technology can shift the scope to a large extent. The technology-based initiatives as envisaged in the budget can promote the growth of the country, along with paving the path to more inclusive development. But how far these goals are attained purely depends not on the announcements, but on effective planning, proper implementation, rigorous follow-ups, a vigilant error correction mechanism, and a sound infrastructure system.

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