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INSTITUTE OF ECONOMIC GROWTH

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POLICY BRIEF

WHITHER e₹?

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Introduction

The Reserve Bank of India (RBI) has recently launched pilots for an Indian Central Bank Digital Currency (CBDC) called the e₹, in both Wholesale and Retail segments¹. The pilot in the wholesale segment, known as the Digital Rupee-Wholesale or e₹-W, was launched on November 1, 2022. This e₹-W's pilot tests for the settlement of secondary market transactions in government securities. If successful, this mechanism is expected to make the inter-bank market more efficient. It should also reduce transaction costs by pre-empting the need for settlement guarantee infrastructure or for any collateral to mitigate settlement risk.

Similarly, the pilot in the retail segment, known as the Digital Rupee-Retail or e₹-R, was launched on December 01, 2022, within a closed user group comprising retail customers, private merchants, as well as eight commercial banks. The RBI has identified these eight banks for phase-wise participation in the retail pilot project. The e₹-R is in the form of a digital token that represents legal tender and is being issued in the same denominations as the paper currency and coins. It is being distributed through financial intermediaries, i.e., commercial banks. The e₹-R pilot will provide the closed user group with a risk-free medium of exchange as it represents a direct liability of the central bank, with features of physical cash like trust, safety and immediate settlement finality in digital transactions. Like cash, the pilot e₹-R does not earn any interest and can be converted to other forms of money, such as deposits in a bank. These pilot projects aim to test the robustness of the entire process of digital rupee creation, distribution and retail usage in real-time.

While these pilots are necessary for an assessment of the viability of this new form of money, the current attempts seem to be focussed on the operational feasibility of such an exercise. There are however, more complex structural and policy issues involved in the context of adopting CBDCs as a form of money that also need to be considered. These issues are discussed below, keeping in mind the current features of the Indian economy.

e₹: An Indian Perspective

The introduction of a CBDC is a gradual and continuous institutional change that is expected to redesign India's monetary and financial sector in a major way. In this context, it is important to understand the current institutional arrangements—particularly in terms of digital payments systems—and whether there are strong arguments to move ahead to CBDCs, given the strengths and weaknesses of the current

¹Press Release, Ministry of Finance. Posted On: 12 DEC 2022 6:49PM by PIB Delhi

system. Traditionally, India remains a cash-using economy while the Indian monetary and financial systems have been mainly bank-based. Thus, money comes in the form of cash and bank deposits. In the past, digital transactions were based on money created by banks. This payments infrastructure has however changed significantly in the last decade or so, with India becoming a pioneer in developing digital payments systems. In this backdrop two key questions emerge. First, does the RBI's CBDC have the potential to replace physical cash in the economy? Second, what would be the domestic value proposition of a retail CBDC given the active encouragement to online digital payments in recent years?

Ironically, despite rapid digitalisation in the last few years the use of cash has not diminished in India, and the demand for cash has increased once again with the retreat of the pandemic. This trend can however be reversed by redirecting small value transactions towards the e₹, provided reasonable anonymity is assured in its use. In terms of payment systems, the e₹ could serve as an additional payment infrastructure. This would increase the resilience of payment methods by restricting private monopolies, curtailing high entry barriers, avoiding potential misuse of data, and providing safety and security of technology. More importantly, CBDCs could also boost cross-border payments, by making these transactions instantaneous and helping overcome key challenges relating to time zone, exchange rate differences as well as legal and regulatory requirements across jurisdictions. Thus, the e₹ can play an important secondary role to both cash and digital payment systems, even if it does not displace them.

Additionally, the development of national CBDCs and its interoperability can also be a major driver of India's international trade and payments, if it can replace the current system of cross-border payments based on the SWIFT platform, which is costly and time consuming. Notably, while the private sector-based digital payments system has been working well within India, it is only a sovereign-backed digital currency like the e₹ that will be trusted in a global system, at least for some time to come. Lastly, e₹ could limit the possibility of a digital dollarization process and mitigate cross-currency and data security risks. This will have to involve the development of global protocols on such cross-border use of CBDCs. In order to have a say in the development of these international standards, it is important for India to have a credible and working CBDC. An indirect form of dollarization is also taking place through the proliferation of cryptocurrencies in the economy, since major cryptos are denominated in currencies of advanced economies and mainly US dollar. The e₹ is also expected to stem such indirect dollarization by offering an alternative to cryptocurrencies.

The Russia-Ukraine war and the US's aggressive use of economic sanctions seems to have imparted additional momentum to the CBDC race. The risk of unilateral, punitive sanctions and its deleterious economic consequences has encouraged many countries to start exploring cross-border CBDC options. Of course, a key concern is whether a CBDC-based cross-border payments system would remain immune to sanctions. Importantly, a CBDC-based system works outside the legacy global financial payment infrastructure. So, in case of country-specific CBDCs, where the central banks act as correspondent banks, any sanctions will have to directly target these central banks. Clearly, it will be difficult to implement such sanctions repeatedly as the international monetary and financial system is dependent on the cooperation of major central banks. Moreover, in case of a universal CBDC, such sanctions would have to target the multilateral institution that issues these currencies and such a move would start an economic war with all the participating countries. In either case, a CBDC based

arrangement is still exposed to sanctions, but will definitely make such sanctions much more difficult to implement. This has provided an additional impetus to many countries to push towards a CBDC-based global payment architecture.

The e₹ is also expected to enhance the welfare for the poorer sections by facilitating financial inclusion, making financial services more accessible to the unbanked and the underbanked population. Moreover, the e₹ may also enable direct, timely, and targeted transfers of aid or stimulus packages to the public or firms in times of crisis. It could also create a feedback loop on the use of such funds for better policy decisions. Of course, considering that the unbanked and underbanked population is not digitally savvy, introduction of CBDC for welfare objectives would need to be complemented with measures related to financial literacy and consumer protection.

Challenges of adopting the e₹

While the arguments for an Indian CBDC are compelling, the challenges are not trivial either. If CBDCs are considered better financial assets than bank deposits by savers, then the introduction of CBDCs has the possibility of triggering disintermediation of the banking system and the possibility of bank runs. This can happen as CBDCs are completely guaranteed by the RBI, while bank deposits are only partially guaranteed through deposit insurance. Such a shift can also happen if Indian CBDCs become interest bearing at some point. If there is disintermediation, then banks would lose a cheap source of funds and may be forced to hike interest rates to lure back customers or seek alternative sources, increasing their cost of funding. Banks' overall balance sheet would also diminish since they have to debit both the deposit accounts (liabilities) and their reserves with RBI (assets) simultaneously, so RBI can credit the amount into e₹ accounts maintained with RBI. Thus, disintermediation can reduce the overall volume of credit and also increase the cost of credit in the economy. As CBDCs are far easier to access and use compared to cash, they could also accentuate bank-runs during financial stress or uncertainty.

Large scale shifts to CBDCs could also prove detrimental to banks which have large non-performing assets. Any disintermediation and liquidity constraints could reinforce this weakness, thereby leading to insolvency problem too. In addition, if CBDC holders transact directly through their individual accounts, then the banking sector's role in providing payments services would also reduce. At the same time, their role in monetary policy transmission will diminish, as central banks would directly deal with households and businesses.

Policy Recommendations

How can these problems be controlled or minimised? Clearly, CBDCs should be designed such that they preserve the two-tier architecture of the monetary and payments systems between the central and commercial banks. Within this, RBI could design a synthetic CBDC that allows banks to issue payment instruments, representing their personal liabilities, and back the same with its reserves. This, however, is not a direct RBI liability such as cash. The other option is a hybrid CBDC wherein the digital currency is a direct claim on the RBI, with banks continuing to play their role in the financial intermediation. The digital rupee for domestic retail use would also need to be designed in a “user-centric” manner that will take into account the user requirements, attitudes, preferences, and behaviour. Moreover, in designing the digital rupee, relatively quicker success will be achieved if CBDCs are designed to work in tandem

with the current and planned future payments infrastructure, rather than substitute them. If the designs work well, CBDCs could help domestic digitalization and minimize the possibility of a digital divide.

Given the current structure of the Indian financial sector, it is imperative to design non-interest bearing CBDCs, so that they do not compete with commercial bank deposits. Imposition of ceilings on CBDCs holdings and transactions could further minimise propensity to accentuate bank runs. Also, RBI could consider providing support to banks if their insolvency issues are reinforced by liquidity constraints, with the rise in the number of CBDC transactions.

In conclusion, the issuance of CBDC should be based on a calibrated and nuanced approach with adequate safeguards to address potential difficulties and risks. The e₹ should aim to complement, rather than replace, current forms of money. CBDCs should envisage to provide an additional payment avenue to users and not replace the existing payment systems. This approach would re-enforce the sovereignty of the central bank over monetary policy and provide a payment architecture that is inclusive, competitive and responsive to innovation and technological changes.

e₹ Policy Goalposts

- e₹ should be designed such that they preserve the two-tier architecture of the monetary and payments systems between the central and commercial banks.
- RBI should design a non-interest-bearing e₹ so that they do not compete with deposits.
- Ceilings on e₹ holdings and transactions should be imposed to minimise propensity to accentuate bank runs.
- RBI should provide support to insolvent banks with liquidity constraints that are affected adversely by the rise of the e₹.

Selected Citations

Sabyasachi Kar and Priyadarshini D, “Assessing the viability of an Indian Central Bank Digital Currency (CBDC)”, [Vol. 3 No. 3 \(May-Jun\) \(2022\): Indian Public Policy Review](#)

Sabyasachi Kar and Priyadarshini D. “Correct design can ensure CBDCs don't destabilise banks”, <https://www.hindustantimes.com/opinion/correct-design-can-ensure-cbdcs-don-t-destabilise-banks-101644846670390.html>

Sabyasachi Kar, “Do we really need the e-rupee?”, https://www.business-standard.com/article/opinion/do-we-really-need-the-e-rupee-122101100031_1.html

Sabyasachi Kar and Priyadarshini D, “The merits of an RBI digital currency outweigh risks”, <https://www.livemint.com/opinion/online-views/the-merits-of-an-rbi-digital-currency-outweigh-risks-11628788170792.html>

Sabyasachi Kar and Priyadarshini D. “[Could Central Bank Digital Currencies Help Countries Bypass Sanctions?](https://www.bqprime.com/opinion/russia-ukraine-cbdcs-could-central-bank-digital-currencies-help-countries-bypass-sanctions)”, <https://www.bqprime.com/opinion/russia-ukraine-cbdcs-could-central-bank-digital-currencies-help-countries-bypass-sanctions>

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