



**ROSA & ROUBINI**  
ASSOCIATES

**Policy Compass**  
**Digital Rupee: A Cautious and**  
**Calibrated Rollout**

**By**  
**Ajay Nandakumar**



**3 March 2026**

Ajay Nandakumar

**Digital Rupee: A Cautious and Calibrated rollout**

3 March 2026

**Table of Contents**

<b>Executive Summary .....</b>	<b>Page 3</b>
<b>India’s Measured Approach on Global CBDC Race.....</b>	<b>4</b>
<b>Retail and Wholesale Pilots – What is Emerging?.....</b>	<b>4</b>
<b>Cross-Border Payments and Global Coordination.....</b>	<b>4</b>
<b>Financial Inclusion and Infrastructure Implications.....</b>	<b>4</b>
<b>Privacy, Stability and Banking Risks.....</b>	<b>5</b>
<b>Strategic Implication for Emerging Markets.....</b>	<b>5</b>
<b>NOTES .....</b>	<b>5</b>

Page | 2



Rosa & Roubini Associates Ltd is a private limited company registered in England and Wales (Registration number: 10975116) with registered office at 75 King William Street, London EC4N 7BE, United Kingdom.

For information about Rosa&Roubini Associates, please send an email to [info@rosa-roubini-associates.com](mailto:info@rosa-roubini-associates.com) or call +44 (0)20 7101 0718.

**Analyst Certification:** I, Ajay Nandakumar, hereby certify that all the views expressed in this report reflect my personal opinion, which has not been influenced by considerations of Rosa & Roubini Associates’ business, nor by personal or client relationships. I also certify that no part of our compensation was, is or will be, directly or indirectly, related to the views expressed in this report.

**Disclaimer:** All material presented in this report is provided by Rosa & Roubini Associates-Limited for informational purposes only and is not to be used or considered as an offer or a solicitation to sell or to buy, or subscribe for securities, investment products or other financial instruments. Rosa & Roubini Associates Limited does not conduct “investment research” as defined in the FCA Conduct of Business Sourcebook (COBS) section 12 nor does it provide “advice about securities” as defined in the Regulation of Investment Advisors by the US SEC. Rosa & Roubini Associates Limited is not regulated by the FCA, SEC or by any other regulatory body. Nothing in this report shall be deemed to constitute financial or other professional advice in any way, and under no circumstances shall we be liable for any direct or indirect losses, costs or expenses nor for any loss of profit that results from the content of this report or any material in it or website links or references embedded within it. The price and value of financial instruments, securities and investment products referred to in this research and the income from them may fluctuate. Past performance and forecasts should not be treated as a reliable guide of future performance or results; future returns are not guaranteed; and a loss of original capital may occur. This research is based on current public information that Rosa & Roubini Associates considers reliable, but we do not represent it is accurate or complete, and it should not be relied on as such. Rosa & Roubini Associates, its contributors, partners and employees make no representation about the completeness or accuracy of the data, calculations, information or opinions contained in this report. Rosa & Roubini Associates has an internal policy designed to minimize the risk of receiving or misusing confidential or potentially material non-public information. We seek to update our research as appropriate, but the large majority of reports are published at irregular intervals as appropriate in the author’s judgment. The information, opinions, estimates and forecasts contained herein are as of the date hereof and may be changed without prior notification. This research is for our clients only and is disseminated and available to all clients simultaneously through electronic publication. Rosa & Roubini Associates is not responsible for the redistribution of our research by third party aggregators. This report is not directed to you if Rosa & Roubini Associates is barred from doing so in your jurisdiction. This report and its content cannot be copied, redistributed or reproduced in part or whole without Rosa & Roubini Associates’ written permission.

[www.rosa-roubini.com](http://www.rosa-roubini.com)

Ajay Nandakumar

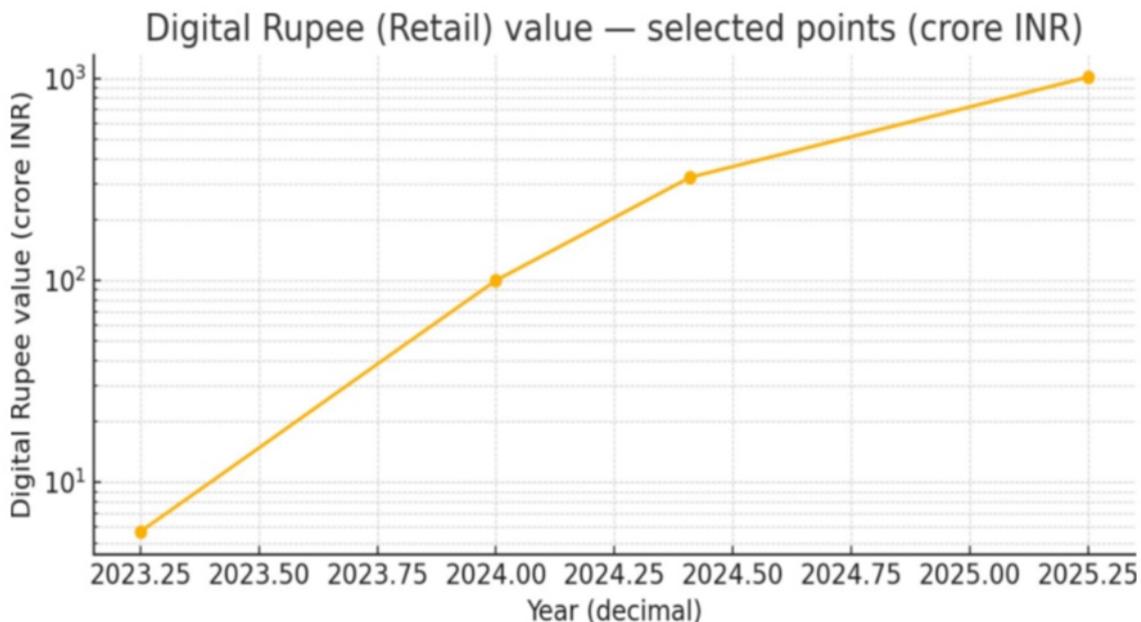
**Digital Rupee: A Cautious and Calibrated rollout**

3 March 2026

**Executive Summary**

- ✦ India has adopted a calibrated and iterative approach to CBDC development, positioning itself between fintech innovation and institutional caution.
- ✦ The Reserve Bank of India’s parallel retail (CBDC-R) and wholesale (CBDC-W) pilots reflect a strategy of operational testing, systemic risk containment, and gradual integration into existing payment infrastructure.
- ✦ Cross-border interoperability remains central to India’s digital rupee strategy, aligning with G20 and BIS efforts to address inefficiencies in global payments, including cost, speed, transparency, and access.
- ✦ While India has already achieved significant financial inclusion through UPI and digital payment expansion, the digital rupee seeks to complement these gains through offline functionality, enhanced transparency, and potential integration with welfare delivery mechanisms.
- ✦ Structural risks remain, particularly around privacy, data governance, and potential bank disintermediation if CBDC adoption accelerates during financial stress.
- ✦ India’s cautious yet innovation-driven approach may offer a replicable model for emerging markets seeking to balance monetary stability, interoperability, and digital transformation in an evolving global financial architecture.

**Key Picture: India’s Digital Rupee—The Calibrated Ascent (FY23-FY25)**



Source: [ResearchGate](#)

## India's Measured Approach on Global CBDC Race

As central banks accelerate experimentation with Central Bank Digital Currencies (CBDCs) to enhance financial inclusion, improve cross-border efficiency, and reduce transaction costs, India has emerged as a cautious but consequential contender. While China has rapidly expanded digital yuan pilots — with transaction volumes reportedly surpassing \$986 billion by mid-2024<sup>1</sup> — Europe and the United Kingdom remain in exploratory phases, and the United States continues to approach retail CBDCs with skepticism. Against this backdrop, India's strategy reflects calibrated institutional experimentation rather than regulatory haste.

Since launching wholesale and retail pilots in late 2022, the Reserve Bank of India (RBI) has expanded digital rupee circulation to ₹10.16 billion (\$122 million) as of March 2025, up from ₹2.38 billion a year earlier<sup>2</sup>. Rather than rushing toward full-scale adoption, the RBI is proceeding iteratively — testing resilience, strengthening infrastructure, and refining use cases aligned with domestic priorities. With active participation in the G20 and BRICS, India recognises that CBDC architecture may shape future global payment standards, making international coordination strategically significant<sup>3</sup>.

### Retail and Wholesale Pilots – What Is Emerging?

The central bank intends to roll-out two broad types of CBDC, retail (CBDC-R) and wholesale (CBDC-W). Retail CBDC would be available for private sector, non-financial consumers and businesses while wholesale CBDC is expected to serve restricted access for financial institutions. CBDC-R can act as a digital equivalent of fiat currency, wherein RBI issues and redeems, while distribution and payment service will be delegated to banks. CBDC-W is perceived to be a solution of interbank transfers and related wholesale transactions - making it more efficient and secure<sup>4</sup>.

It is imperative to ask whether digital rupee replaces Unified Payment Interface (UPI). The distinction is structural: when UPI appears as a means of payment, digital rupee represents central bank money that can function both as a payment instrument and as stored value in digital wallets.

Moreover, to facilitate the country for the adoption of digital rupee, RBI has been intensifying iterative technology testing - focussing on offline payments for the remote and unbanked population, privacy protection and cross-border payment methods. By testing operational resilience, the central bank is trying to establish a complementary route of currency system rather than a disruptive one.

### Cross-Border Payments and Global Coordination

Inefficiencies in cross-border payments — particularly cost, speed, access, and transparency — have driven global CBDC experimentation. In 2021, G20 leaders endorsed a roadmap addressing these structural frictions<sup>5</sup>. Initiatives such as Project mBridge, led by the BIS Innovation Hub alongside Thailand, the UAE, China, Hong Kong, and Saudi Arabia, demonstrate growing interest in multi-CBDC platforms for international settlement<sup>6</sup>.

For India, interoperability is central. A CBDC confined to domestic use risks becoming a sophisticated payment tool rather than a transformative monetary instrument. The RBI has indicated that meaningful cross-border utility requires technical compatibility, regulatory harmonisation, and coordinated governance standards.

As India expands trade relationships across Asia, the Middle East, and Africa, CBDC interoperability could influence future settlement corridors and reduce reliance on legacy payment systems..

### Financial Inclusion and Infrastructure Implications

As per the Bank of International Settlement (BIS), UPI has become a leading payment system with more than 15 billion transactions per month, as of November 2024<sup>7</sup>. It is expected to have made an incremental stride in the

financial inclusion of the country. World Bank Findex Report 2025 illustrates an increase in financial account ownership to around 89% in 2024<sup>8</sup>. The journey was strengthened by the wave of digital payments, especially in the aftermath of covid pandemic. However, CBDC is focusing on reinforcing these achievements with offline payments for remote and unbanked populations. It has the potential to get expanded towards the welfarist policies of the government including direct benefit transfer and subsidies - removing the prevailing delays and enhancing transparency.

### Privacy, Stability and Banking Risks

Beyond the technical implementation and the benefits associated with digital rupee, it raises structural questions on privacy and data governance. The digital currency enhances traceability compared to fiat currency, creating a tussle between anti-money laundering requirements and data privacy. While RBI is trying to establish graded anonymity and data safeguards<sup>9</sup>, public trust will depend on how it is actually executed.

Another critical aspect is the potential impact of bank intermediation. When CBDC-R is accelerated, households might shift from traditional bank deposits. A higher influx could weaken the lending capacity of the banks, especially during stress. It could amplify liquidity pressures particularly in an emerging market like India.

### Strategic Implication for Emerging Markets

India occupies a distinctive position in the global CBDC landscape. Unlike China's accelerated deployment or the cautious hesitation seen elsewhere, India is pursuing a middle path that balances fintech ambition with institutional prudence. For emerging markets, this approach may prove instructive. Rather than prioritising speed or geopolitical signalling, India emphasises interoperability, inclusion, and systemic stability. In an increasingly fragmented monetary order, the strategic value of India's digital rupee may lie less in being first and more in being sustainable. If successfully calibrated, India's CBDC framework could offer a replicable model for economies seeking digital innovation without undermining financial stability.

### NOTES

<sup>1</sup> Atlantic Council. 2025. "CBDC Tracker." Atlantic Council. February 2025. <https://www.atlanticcouncil.org/cbdctracker/>.

<sup>2</sup> "Annual Report - Reserve Bank of India." 2025. Rbi.org.in. 2025. <https://www.rbi.org.in/Scripts/AnnualReportPublications.aspx?id=1438>.

<sup>3</sup> Ashokamithran T. 2025. "Waiting for Other Countries to Unveil Digital Currency: RBI." The Hindu. October 7, 2025. <https://www.thehindu.com/business/waiting-for-other-countries-to-unveil-digital-currency-rbi/article70136294.ece>.

<sup>4</sup> "Concept Note on Central Bank Digital Currency". Reserve Bank of India. 2022. <https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/CONCEPTNOTEACB531172E0B4DFC9A6E506C2C24FFB6.PDF>.

<sup>5</sup> "G20 Targets for Enhancing Cross-Border Payments." 2024. Financial Stability Board. 2024. <https://www.fsb.org/work-of-the-fsb/financial-innovation-and-structural-change/cross-border-payments/g20-targets-for-enhancing-cross-border-payments-2/>.

<sup>6</sup> BIS. 2024. "Project MBridge Reached Minimum Viable Product Stage." *Www.bis.org*. [https://www.bis.org/about/bisih/topics/cbdc/mcbdc\\_bridge.htm](https://www.bis.org/about/bisih/topics/cbdc/mcbdc_bridge.htm).

<sup>7</sup> Cornelli, Giulio, Jon Frost, Leonardo Gambacorta, Sonalika Sinha, and Robert Townsend. 2024. "The Organisation of Digital Payments in India - Lessons from the Unified Payments Interface (UPI)." [https://www.bis.org/publ/bppdf/bispap152\\_e\\_rh.pdf](https://www.bis.org/publ/bppdf/bispap152_e_rh.pdf).

<sup>8</sup> World Bank. 2022. "The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19." World Bank. 2022. <https://www.worldbank.org/en/publication/globalfindex>.

<sup>9</sup> "Concept Note on Central Bank Digital Currency". Reserve Bank of India. 2022. <https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/CONCEPTNOTEACB531172E0B4DFC9A6E506C2C24FFB6.PDF>.