

Chapter 8

The Development of the Digital Rupee: India's Central Bank Digital Currency

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ABSTRACT

This chapter critically examines the adoption challenges of India's digital rupee as a central bank digital currency, offering insights valuable for global banking sectors. Through a mixed-methods approach, combining qualitative interviews and quantitative surveys, the study identifies key barriers to the digital rupee's widespread acceptance, including public trust discrepancies, the dominance, socio-economic disparities, and technological hurdles. Despite a high professed understanding of the digital rupee, actual usage rates are low, highlighting a significant gap in financial literacy and the need for enhanced educational efforts. The research further reveals gender and income disparities in digital rupee awareness, underscoring the importance of addressing these issues for financial inclusion. Technological readiness, contrary to expectations, does not directly correlate with higher adoption rates, pointing to the necessity of a comprehensive strategy that goes beyond mere technological deployment.

1. INTRODUCTION

1.1 Contextual Overview

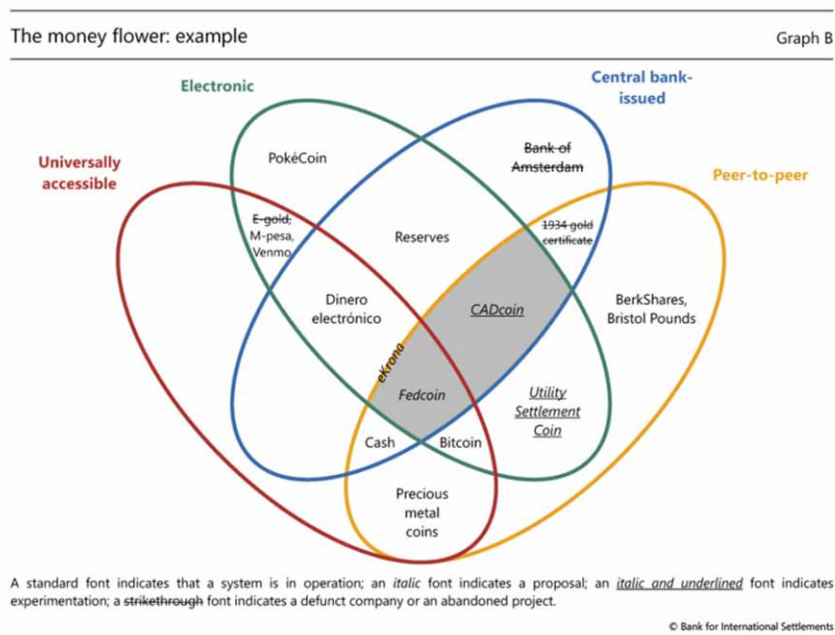
The financial ecosystem has undergone a seismic shift in the past decade, transitioning from traditional banking systems to a digital frontier characterized by Fintech, cryptocurrencies, and most recently, Central Bank Digital Currencies (CBDCs). The period between 2017 and 2021 witnessed an unprecedented surge in the popularity of cryptocurrencies such as Bitcoin, Ethereum, and Dogecoin. Despite their volatility, these digital assets have garnered significant attention, leading to regulatory responses from central banks worldwide (Ozili, 2023).

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1.2 The Emergence of CBDCs

In response to the burgeoning influence of private, unregulated digital currencies—initially conceptualized as peer-to-peer networks that negate the need for financial intermediaries (Nakamoto, 2008)—central banks worldwide have commenced CBDC initiatives as a stabilizing measure. Latest figures suggest that approximately 90% of central banks are at different stages of CBDC development (Denecker et al., 2022). These institutional digital currencies are not merely reactionary but are anticipated to significantly reshape the revenue models and operational workflows of commercial banks (Deloitte, 2022). Bech and Garratt’s Money Flower Venn diagram (2017), as given in Figure 1, accentuates CBDCs’ pivotal role in future financial ecosystems, confirming their necessity beyond being a mere response to the issues of double-spending and network security posed by decentralized currencies. This dual nature—both as a countermeasure and a transformative force—elevates the import of CBDCs in contemporary financial discourse.

Figure 1. Money flower



1.3 Global Overview of CBDC Initiatives

The global landscape of Central Bank Digital Currencies (CBDCs) is rapidly evolving, with multiple countries at various stages of development and implementation, as shown in Figure 2 below. Countries like the Bahamas, Jamaica, and Nigeria have already launched retail CBDCs, while G20 nations such as India, China, and Russia are in the pilot phase. Other countries are exploring both retail and wholesale use-cases (overview illustrated in Figure 3.), with some like Sweden and Kazakhstan extending their pilot programs into 2023 and beyond. This diverse array of initiatives reflects the growing recognition of CBDCs’ potential to revolutionize financial systems, offering insights for India’s own Digital Rupee project.

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