Business Today

Coin Flipping Time

As central banks look at digital currencies, this emerging technology will soon be hard to ignore

E Kumar Sharma | Print Edition: July 26, 2020

The Central Banking Journal, which has leading former central bankers on its editorial advisory board - including former Reserve Bank of India (RBI) Governor Y.V. Reddy - published a survey on digital currency in its May issue. Sharing the results of the Central Bank Digital Currency (CBDC) Survey, conducted in February, it cautioned that a lot of the attention being given to digital currencies is overdone and that very few central banks plan to issue CBDCs, in any form, within the next five years. But it also said that numerous central banks are "actively evaluating CBDCs, publishing in-depth reports on issues looking at financial stability, financial market infrastructure and macroeconomic implication."

A large number of central banks, including in India, may not be in a hurry to launch digital currencies, but the fast-evolving ecosystem of technologies around them - and their various uses and benefits - will be hard for countries to ignore in the years to come.
Apart from being issued by central banks, digital currencies can also exist in other forms, not recognised by a central bank and in a somewhat unregulated fashion, in which case these are called virtual currencies. Cryptocurrencies, being largely unregulated, are also virtual currencies, but their defining characteristic is use of cryptography to secure and verify transactions and manage creation of new units. The basis of all digital currencies is distributed ledger technology (DLT), a database that is synchronised and accessible across geographies by multiple participants. One example is blockchain, a distributed ledger that uses blocks of information to carry out end-to-end digital transactions (some digital currencies such as bitcoin have blockchain in their DNA).

The ecosystem is fast evolving and India, with its immense governance challenges, will have to sooner or later join the global effort, both by governments (for things such as digitising records and ensuring ease of payments) and private players such as Facebook (it plans to take its proposed digital currency Libra global), in exploring more and more use cases of DLT. G. Padmanabhan, Non-executive Chairman of Bank of India and former Executive Director, RBI, who has looked at the subject closely, says, "Whenever people talk about DLT and blockchain, they immediately connect it with bitcoins. Yes, bitcoins use blockchain, but this technology has its own use. For example, you could talk of a blockchain-led KYC (know your customer) process that could do away with duplication of KYC by several entities, though I personally think that this is a few years away (in India)." There are already reports of the Japanese banking system working on projects that seek to build a KYC platform using blockchain technology. Bankers often find KYC as the most duplicated effort in the financial sector.

What About India?

"Digital currency is clearly an important emerging technology, specifically for India, considering that it should have a comparative advantage in this area due to the large number of talented software engineers in the country," says New York University Professor David Yermack, who teaches a course on the subject. India has a "desperate need for a more modern payment system to meet the needs of the vast numbers of unbanked and under-banked residents. On both supply and demand side, this technology should be thriving in India," he says.

But it's easier said than done. The trickiest part is lack of clarity about the nature of the technology and its output. For instance, despite the soaring popularity of bitcoins a few years ago, nobody was sure if it was currency or commodity (considering the manic speculation that led to spectacular rise in its price). Bitcoins, launched in 2009 globally in response to debasing of the global monetary system by central banks' massive currency printing after the 2008/09 financial crisis, started becoming popular in 2013. As prices began to surge, the RBI responded in December 2013 by cautioning "users, holders and traders of virtual currencies, including bitcoins, of the potential financial, operational, legal customer protection and security risks that they are exposing themselves to." The attention subsided for some time but in 2017 and early 2018, there was a huge rally in bitcoin prices. In April 2018, the RBI banned banks from facilitating buying and selling of virtual currencies and issued a notification prohibiting commercial/cooperative banks, payment banks, small finance banks, NBFCs and payment system providers from dealing in virtual currencies. The ban covered all financial institutions under its regulation. Those in the industry saw this as an indirect ban as key infrastructure support was removed but digital currencies/bitcoins were not declared illegal per se.

In November 2017, the RBI released a report of a working group on fintech and digital banking that recommended a regulatory sandbox for financial innovations. Subsequently, around April 2018, there were news reports of the government and the RBI looking at the possibility of launching a fiat cryptocurrency named Lakshmi (the Hindu Goddess of wealth), though there was no official note or statement announcing the name or other details. Finally, in March 2020, the Supreme Court lifted the curbs earlier imposed by the RBI. The current status, says Jaideep Reddy, Leader, Technology Law at Nishith Desai Associates, is that "it is now legally permissible for crypto exchanges to operate and procure a bank account. Other laws like the Consumer Protection Act and the Indian Penal Code will continue to apply and protect consumers to a fair extent." Nishith Desai Associates has been advising industry on the matter since 2013. "My personal belief is that the central bank has acted to protect the legacy banking system from disruptive competition from shadow banks that would rely on this new technology," says Professor Yermack.

The Way Ahead

Many experts agree about the benefits of DLT and virtual currency. Singapore-based economist Rajeev Malik, who runs consultancy firm Macroshanti Pte, says: "The digital alternatives are easier to maintain, more convenient to handle and are more economical than cash as no special high-security paper is needed." What about safety? "They offer greater privacy. Absence of intermediaries means transactions are typically instantaneous with negligible or no fee. Finally, the new digital alternatives have the potential of providing the unbanked population easier access to financial infrastructure," he says. The Bitcoin wallet service is already gaining acceptance as service providers enrol more and more merchants.

Of late, a new cryptocurrency, called stablecoin, has become popular, mainly because it is seen as more stable than other crypto assets such as bitcoin. "This is because its value is linked or collateralised to an underlying asset such as the US dollar, a commodity such as gold, or other cryptocurrencies. There are non-collateralised stablecoins as well; these are not backed by any asset but use algorithms to manage supply and keep prices stable. However, lack of collateral is a major risk in case of a market crash," says Malik. Facebook-initiated Libra is a much-anticipated stablecoin awaiting nod from regulators. Another example of stablecoin is Tether, issued by Tether Ltd.