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Demonetizing our way to the digital world of Bitcoin and crypto-currencies



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Every disruption creates opportunities. The demonetization also offers us an opportunity to leap frog from the millennia-old physical world of currency to the emergent digital world. Digital currencies come in various forms, each offering different benefits and challenges. Swift actions by the Indian government to move us into the world of digital currency can not only reduce the predicted devastating effects of the demonetization on our economy but also put a permanent dent on corruption, parallel black economy and counterfeiting.

By Mihir Parikh, Strategic Thought Leader, and Nishith Desai, Founder and Managing Partner

Frustrating long lines at banks and shocking disorders in normal life have been the immediate aftermath of the Indian government's effort to stamp out corruption, parallel black economy and counterfeiting by demonetizing high-value currency notes. While the intentions behind this radical move have been upright, the preparedness has been downright inadequate.

Every disruption creates opportunities. This demonetization offers us an opportunity to leap frog from the millennia-old physical world of currency to the emergent digital world. It is high time to replace designing, printing, distributing, using, protecting and recycling physical currency with the bits and algorithms of digital currency.

Digital currency comes in four major forms: 1) algorithm-based crypto-currencies, 2) government-issued digital cash, 3) mobile payment mechanisms; 4) traditional credit and debit card systems. The first two completely replace physical currency, while the latter two would drastically minimize its use.

Governments have been minting money for centuries. Government-issued money promises a strong backing, but history shows that such promises have been hollow. Governments have flooded markets with currency at their whims to hide their failures. The resulting inflation has eaten away the hard work and savings of their own citizens.

Crypto-currencies change the whole equation. They are not issued by a government nor backed by gold or other promises; rather they are based on the "trust-no-one" principle both on the supply side and in transactions. Minting (often called mining) of crypto currency is regulated by a pre-defined computer algorithm. Unlike in the case government currency, the supply of crypto-currency is known in advance. This allows greater price discovery and inherent inflation-hedging.

Authenticated in every transaction through the distributed network, crypto-currencies are counterfeit-proof. They can be stored in electronic wallets in your mobile phone and easily transferred from one wallet to another. Due to their ability to divide into million parts and almost nil transaction cost, they can be efficiently used in small transactions replacing cash.

Bitcoin is one type of crypto-currency. It uses a peer-to-peer blockchain mechanism to authenticate every Bitcoin transaction. Currently, trading at over US\$700 per Bitcoin, it is almost twice as precious as a *tola* (about 11 grams) of gold and more than 200-times as costly as the most expensive government-issued currency (Kuwaiti Dinar). In India, Bitcoin is currently traded at a premium of 25-30% over its global market price due to sudden demand and limited availability.

Crypto-currencies traditionally suffer from the drawbacks of volatility, cybersecurity breaches into wallets, and lower legitimacy compared to fiat currencies. Government-issued digital cash can address these issues to a large extent. It is like crypto currencies in terms of its electronic wallet-based storage and zero transaction cost, but its supply and authentication are regulated by the government. In addition, their transactions can be linked to national identity cards, like Aadhaar, and traced for fraudulent or illegal trades.

Mobile payment mechanisms, termed semi-closed Prepaid Payment Instrument, like Paytm and MobiKwik, use mobile wallets to digitally store fiat money on smart phones. Money transfers can take place from one mobile wallet to another. In the past few weeks, these services have attracted millions of new users. Given the quick rise in their demand, the RBI doubled the monthly digital wallet spending limit to Rs.20,000 per month after demonetization.

Since the demonetization announcement, the RBI and banks have been actively encouraging the use of debit cards (and in effect credit cards) in daily transactions. Unfortunately, little had been done *a priori* to promote the development of the underlying Point of Sale (PoS) infrastructure. This deficiency is limiting the use of cards to upper-tier cities and upper-class citizens.

The usage of digital currencies is rapidly increasing by each day. We should not under-estimate public interest in digital currency and its benefits of financial inclusion for the most marginalized people. In recent days, user acquisition rate of mobile wallets has increased five folds. Of course, it would equally be necessary to build proper framework for the legitimate protection of individual privacy and security of transactions. If properly tapped, India can provide global leadership in this area.

Some leading economists have predicted that the growth in cash-intensive sectors, such as food, transport, real estate and restaurants, will halve and full fiscal GDP growth will dip by almost 1% due to demonetization. This will severely affect a large section of working-class population.

Yesterday, Indian government announced a high-level panel of chief ministers, headed by Chandrababu Naidu, with a mandate to prepare a roadmap for rapid adoption of digital payment systems. It is a right move, but we hope that the high expectations on this panel does turn into a morass of state politics. Swift actions by the government to move us into the digital world of currency is the way to not only reduce the devastating effects of demonetization but also put a permanent dent on corruption, parallel black economy and counterfeiting.