

Cryptocurrencies: the 21st century cash

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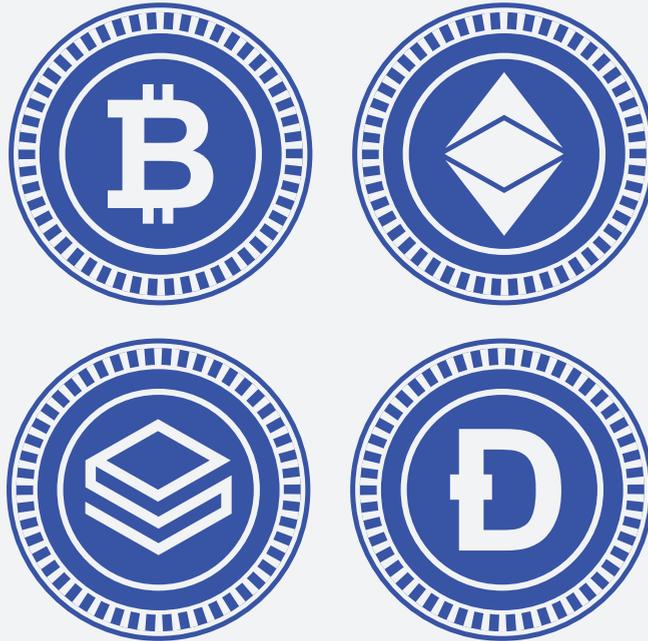
They had been around for a while, but it was not until 2017 that cryptocurrencies really gained global attention as the price of a Bitcoin surged to almost \$20,000. When Facebook announced Libra, its new cryptocurrency payment system, earlier this year, the conversation hit all levels of society and politics. And no wonder. Facebook, with its potential user base of over 2bn, has the potential to disrupt the payment industry and send the use of cryptocurrencies into the mainstream.

But cryptocurrencies have always been additions, rather than substitutes, to the global inventory of money. They have not managed to take off as a means of payment despite their well-known benefits, such as security, speed, minimal transaction fees, ease of storage and relevance in the digital era.

Looking ahead, this situation may be different. What about if one of the GAFA (or their Chinese counterparts BATX) for example are able to overcome regulatory hurdles – the main obstacle at present? In the long run, this would broaden the appeal of cryptocurrencies, hasten their adoption, and give them the potential to eventually replace cash (see our piece *The end of cash plastic cards*).

On the supply side, governments, banks and cards are moving towards a cashless society. Governments, banks and card providers share at least a goal: the elimination of cash. While governments are more concerned with eliminating larger notes in circulation as they are mostly used for the black economy, banks and card providers are finding ways to foster smaller payments with cards through technology innovations, such as contactless and mobile payments.

Key is what happens in the world's two most populous countries. Until now, China and India banned the purchase and the sale of cryptocurrencies. But things are moving quickly. In late October, Chinese President Xi Jinping endorsed blockchain as "an important breakthrough for independent innovation of core technologies". He repeated the PBoC's intention to have cash replaced by a central bank-issued digital currency. The aim is to support the yuan's circulation and internationalisation. Details are to be confirmed but it seemed that the digital currency may have the following characteristics: i) commercial banks and the PBOC will be the only issuers;



ii) the PBoC will design all wallets, possibly without using the blockchain. With government support, it is likely the Chinese people will move quickly to adopt the digital currency.

In India, change is also coming. The government declared in 2016 that 1,000 and 500 rupee notes would no longer be valid despite strong resistance to change and temporary cash shortage. And recently, a government economic panel pitched for the introduction of an official digital currency with the status of legal tender and regulated by the Reserve Bank of India.

The next question relates to the demand side: how fast retailers and consumers can embrace change?

In the 20th century, most companies and retailers accepted and favoured cash for small payments. Today is quite different. Digital payments are preferred by retailers as cash means counting bills, finding change, dealing with bank queues, and potential theft. Those

factors outweigh the cost of credit card fees on the same transactions. The next logical step is a digital cash alternative which removes, or at least lowers, the additional fees that card providers currently take?

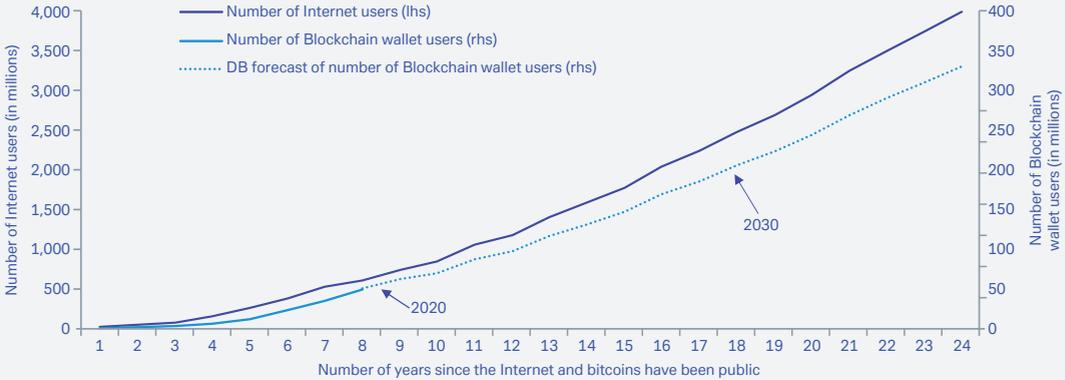
According to dbDig primary research,¹ nearly two thirds of consumers prefer dematerialised to cash payments and a third are concerned by anonymity. These are the two things that cryptocurrencies do best.

Payment technology adoption becomes faster and faster

Assuming governments back cryptocurrencies, and consumers want them, adoption rates will drive the timeline for mainstream use. The chart below shows the adoption rates of blockchain wallets with the equivalent for the internet. It is early days but the curves are similar after adjusting for scale. Indeed, if current trends continue, there could be 200m blockchain wallet users in 2030.

¹ We commissioned an exclusive survey that analysed data over 3,600 customers in China, France, Germany, Italy, the United Kingdom, and the United States. It explains why the gap between physical payments (cash and plastic cards) and actual digital payments behaviour is narrowing.

Adoption rates of cryptocurrencies and Internet



Source: Deutsche Bank forecasts, InternetWorldStats.com and Blockchain.com. We measure "adoption rate" by the number of users adopting internet and bitcoins since they went public.

The future of cryptocurrencies

Cryptocurrencies need to overcome three main hurdles to become widespread. First, they must become legitimate in the eyes of governments and regulators. That means bringing stability to the price and bringing advantages to both merchants and consumers. They must also allow for global reach in the payment market. To do this, alliances must be forged with key stakeholders – mobile apps such as Apple Pay, Google Pay, card providers such as Visa and Mastercard, and retailers, such as Amazon and Walmart.

If these challenges can be overcome, the eventual future of cash is at risk. But new challenges would arise. For starters, it will mean basing a robust financial system entirely on electricity consumption. To envision a smooth transmission towards a fully digitalised platform, the financial system needs to be ready to overcome any kind of electricity shutdown or cyberattack. Governments may increasingly need to safely store back up of citizens data in an alternative country. Estonia, for example, chose Luxembourg to store a comprehensive backup of government data, including details of its citizens' health, population, business registries, as well as a data embassy.

Natural disasters, climate change, and global warming are also issues to deal with. They are infrequent but can be crippling. In 1989, Quebec was plunged into darkness for nine hours because of a solar flare.

Cyberattacks are also becoming more frequent. In January 2018, the Tokyo-based cryptocurrency exchange Coincheck reported that hackers had taken £400m. Even though transactions for many cryptocurrencies are public, all 523m stolen coins ended up in nameless accounts.

As we look to the decade ahead, it would not be surprising if a new and mainstream cryptocurrency were to unexpectedly emerge. Some countries with historically-strong banking industries are trialling cryptocurrencies. Separately, cryptocurrencies may constitute the best tool for a digital war. The question is which country will take advantage of being the first to obtain licenses and build alliances. As that occurs, the line between cryptocurrencies, financial institutions, and public & private sectors may become blurred.

We would like to thank Anthony Chaimowitz for his contribution to this piece.

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