



# Cryptomania



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MANY DESCRIBE BITCOIN AS A CURRENCY. ULTIMATELY ITS MORE REVOLUTIONARY IMPACT COULD BE AS A TECHNOLOGICAL TOOL FOR THE FINANCIAL WORLD. **JOHANN PALYCHATA** LOOKS AT FIVE WAYS CRYPTO-CURRENCIES COULD SHAKE UP FINANCE AND ASSET SERVICING



The development of an alternative to the current banking system is under way

**F**rom radio to refrigeration, the printing press to the steam engine, history is peppered with examples of technological innovation that have transformed the way business works. Crypto-currency technologies are still far from being widely used, but the development of an alternative to the current banking system is under way: thousands of entrepreneurs and finance professionals have now joined the initial group of enthusiasts and core developers, and venture capitalists have committed over USD 250 million to startups in the crypto-currency space over the last two years. Will the finance industry embrace a decentralised and open source protocol? Here is a look at how it can challenge the status quo across the banking sphere.

**1 MEANS OF PAYMENT** As the value of Bitcoin increases, more merchants are willing to sell to the newly wealthy Bitcoin owners. It also helps them to bypass the payment card industry, which can retain a hefty 2% cut of a transaction's value. As a result, there are startup companies developing options for the installation

of Bitcoin payment terminals both in physical boutiques and online: purchases on certain sites, such as dell.com, can already be paid in Bitcoin. We anticipate the slow emergence of an ecosystem to accommodate a broader use of crypto-currencies in the real economy.

**2 PAYMENT SYSTEM BETWEEN LARGE CORPORATIONS** Bitcoin has settlement batches roughly every ten minutes and operates continuously day and night. Transactions are irrevocable and cheap. Nonetheless, the unit of account is comparable to central bank money in its nature. Large corporations might decide to use the Bitcoin network rather than existing settlement systems.

**3 DECENTRALISED INFRASTRUCTURE FOR SECURITIES ISSUANCE AND SERVICING** Paper bonds disappeared during the second half of the 20th century. In the 21st century, the same thing could happen to the current centralised model based on custodians, clearing houses and Central Securities Depositories (CSD). Bitcoin is a comprehensive decentralised registry, settlement and messaging system that is currently used to host a currency. Over the last 12 months, many initiatives (Mastercoin, Ethereum, NXT) have started facilitating the issuance of equities and bonds. They aim to replicate the mechanisms such as the placement of orders on exchanges, delivery versus payment, payment of dividends (or interests) to shareholders, corporate actions, and electronic voting for corporate governance. These initiatives might first appeal those who are already raising money through alternative channels such as crowdfunding. However, we might not be far from the day when a quoted company says that coins (that we could call 'Bitshares' to distinguish them from the currency coins) represent shares of its capital.

**4 WORLDWIDE NETWORK FOR FUND DISTRIBUTION** Bitcoin is a worldwide network any individual can join, any time, anywhere. It would therefore be the largest fund distribution platform a fund management company could dream of. The potential reduction of the platform costs (fewer intermediaries and a shorter route to investors) and the increased speed of the investment process (in the crypto-currency world, the cash collected at the time of the subscription is simultaneously settled and available for investment) could further enhance the competitive advantage of funds using this technology. Investors, meanwhile, could operate with increased flexibility and liquidity, safely selling shares at any time to other willing investors without any intermediary. The protocol can also handle delivery versus payment. Investment funds have a good chance of becoming one of the first real banking users of crypto-currencies, providing a standardised platform for international fund distribution.

**5 USE OF THE PROTOCOL SCRIPTING FEATURE FOR INTERNATIONAL TRADES** International trading relies on trade finance to secure payments. Bitcoin transactions can be designed to mimic the characteristics of a letter of credit and bypass the banks that currently act as intermediaries. The scripting capabilities of Bitcoin allow complex transactions to be set up between two commercial partners. In this specific situation, a buyer importing goods into a country can make a time-limited deposit to prove that he is solvent at the time of the order. Only the seller can unlock it – but this unlocking option is available to him only after the buyer acknowledges receipt of the goods. If the goods are not delivered in the defined timeframe, the buyer gets the deposit back.

## BEFORE GOING FULL STEAM AHEAD

Bitcoin could become a market-leading technology that will change the way financial systems are engineered. However, there are daily reports of theft, drug dealing and other illegal activities involving crypto-currencies. Some regulators and politicians understand it now and are investigating options to control it while enabling its development.

Given crypto-currencies' potential to revolutionise banking practices over the next decade, banks need to invest time and energy to understand how they can best make use of them before other players step in to make that decision for them. ■

■ For more on Bitcoin and other crypto-currencies, visit our Quintessence website: [bit.ly/quintessenceportal](http://bit.ly/quintessenceportal)



## THE CRYPTIC ORIGINS OF BITCOIN

In 2008, an individual or group writing under the name Satoshi Nakamoto published a paper that described a peer-to-peer version of electronic cash that "would allow online payments to be sent directly from one party to another without going through a financial institution". The first implementation of this concept is known as Bitcoin. Today, 'crypto-currencies' is the label used to describe all networks and mediums of exchange that use cryptography to secure transactions – as opposed to systems in which transactions are secured thanks to a third party, such as a bank.

Source: Coindesk ([www.coindesk.com/bitcoin-venture-capital](http://www.coindesk.com/bitcoin-venture-capital)), August 2014  
Bitcoin: A Peer-to-Peer Electronic Cash System, Satoshi Nakamoto (<https://bitcoin.org/bitcoin.pdf>)