Global Investment Insights

Don't look down: cryptocurrency reaches new heights

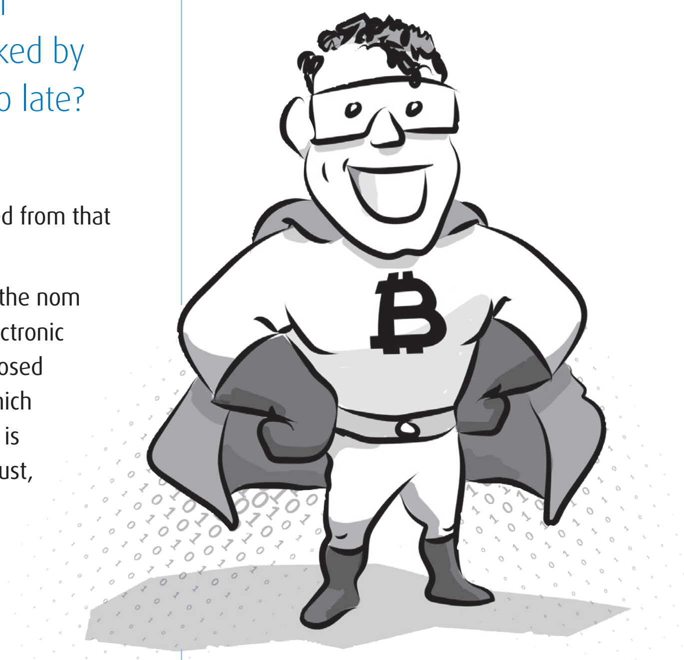
Pyrford International Ltd.
a specialized global investment team
of BMO Global Asset Management

Unless you have been cave-dwelling for the past year, you can't have missed the meteor called bitcoin streaking across the firmament. Most have looked in wonderment at this strange phenomenon as its price gyrates as much in a day as most investments move in a lifetime. It is suddenly the subject of supermarket and taxicab conversations: What is it? Is it backed by anything? Should I buy some? How do I buy some? Am I too late? Is it a bubble? Is it money? Is it legal? And so on and so on.

Now we're no experts when it comes to cryptocurrency—in fact, we are far removed from that position—but we'll do our best to put some flesh on these very confusing bones.

Let's start with "where did it come from?" Back in October 2008, an individual with the nom de plume of Satoshi Nakamoto published a paper titled, "Bitcoin: A Peer-to-Peer Electronic Cash System." This came amidst the turmoil of the global financial crisis and it proposed an internet-based global payment system utilizing a decentralized public ledger, which came to be known as "blockchain." In the 2008 words of Satoshi Nakamoto: "What is needed is an electronic payment system based on cryptographic proof instead of trust, allowing any two willing parties to transact directly with each other without the need for a trusted third party."

OK, so that's already lost half our audience. But we'll plow on. The essential concept was to utilize the power of computers and the internet to **remove the middleman** (such as a financial institution with its increasingly archaic centralized transaction technology) and replace it with a real-time, secure, anonymous, verifiable and trustworthy peer–to-peer transaction mechanism. The mechanism is "blockchain"—a complex but very effective piece of computer architecture and the digital "currency" is bitcoin—although there are now many other manifestations of these so-called cryptocurrencies (more than 1000).



Contact us

bmogamviewpoints.com

bmo-global-asset-management

The anonymous nature of bitcoin transactions obviously appeals to those who like to cloak payments in secrecy and rumors abound about illegal activities employing the currency. It would also be no surprise to learn that several governments are making secret payments in cryptocurrencies.

But back to the story: Blockchain is so called because it is a chain of "blocks." Each block contains transaction data, a timestamp and a hash pointer as a link to the previous block. The data in blockchains is impossible to modify. The blocks of transactions are all linked (chained) together using a cryptographic signature to create a permanent, verifiable and hack-proof digital record.

Satoshi Nakamoto created a maximum of 21 million bitcoins—but not all at once. Each one has to be "mined"—"hold on there" we hear you saying. How do you "mine" something that is essentially a computer algorithm? Actually, we have no idea. Apparently there are around 16.7 million bitcoins out there now and 12.5 freshly "mined" bitcoins are released every 10 minutes. The amount "mineable" halves every 210,000 blocks, meaning it will take until approximately 2040 before all 21 million bitcoins are released. The intense computer power required for "mining" and blockchain transactions consumes vast quantities of electricity—said to be more than Ireland's annual consumption. Not something that will please the environmentalists.

Is 21 million bitcoins a magic figure? We don't know. Can it be increased? We believe not but how can we be sure?

At today's bitcoin price of around US$18,000, the capitalization of the bitcoin market is close to US$300 billion—equivalent to the GDP of Denmark. So this is all very "real."

Bitcoin price (USD)

Source: Thomson Reuters Datastream

Trying to put a value on bitcoin is impossible. It pays no dividend, no interest, has no earnings or fundamental method of valuation, yet has soared from virtually nothing to over US$18,000. Certainly it is finite in quantity but then so are many other things. And it is not as if it doesn't have digital currency competitors.

We certainly "get" the point of blockchain. **It is undoubtedly a game-changer.** Recently, the Australian Securities Exchange announced that it is planning to adopt blockchain technology to replace its outdated CHESS clearing and settlement system for the Australian share market. Many others will undoubtedly follow. We will probably all be using blockchain in one form or another within the next decade without necessarily being aware of what is going on "under the hood."

Back in 2015, the U.K. government's chief scientific adviser, Sir Mark Walport, headed-up a study into blockchain and the subsequent report "Distributed Ledger Technology: beyond blockchain" provides an excellent overview of the possibilities opened up by this new technology. There are many pieces of wisdom in this report but one comment that particularly struck us was the following:

> "Distributed ledger technologies have the potential to help governments collect taxes, deliver benefits, issue passports, record land registries, assure the supply chain of goods and generally ensure the integrity of government records and services...digital cryptocurrencies are of interest to central banks and government finance departments...because the electronic distribution of digital cash offers potential efficiencies and, unlike physical cash, it brings with it a ledger of transactions that is absent from physical cash... Distributed ledger technology could solve business problems that can be summed up as cost, duplication and reconciliation."

So blockchain technology and cryptocurrencies are here to stay but it doesn't necessarily imply that bitcoins should continue to skyrocket in value. We can intellectually separate the bitcoin mania from the impressive blockchain technology.

We are sympathetic with the view that "fiat" currencies have let the world down. We have railed in the past at inflation that has always decimated the real value of the central bank currencies we carry around in our pockets. Since the U.S. Federal Reserve was created in December 1913, the U.S. dollar has lost over 95% of its real purchasing power. Many other countries would be jealous of a record that good! Look at Zimbabwe, Venezuela and Argentina to name but three recent examples. Unfettered access to the printing press is seductive and dangerous.

It is ironic that modern governments and central banks actually adopt inflation targets! They deliberately set out to devalue the currency in your pocket.

So yes, we see the appeal of a digital currency that is separated from the interference of governments and central banks and that has the many advantages offered by bitcoin and its ilk, but when something smells like a bubble and looks like a bubble, it is probably a bubble. We have seen valuation projections ranging from zero to US$1million for a bitcoin. Take your pick and play if you feel inclined. But we wouldn't recommend you bet the house.

And blockchain? Get used to the terminology—you'll be hearing about it more and more.

BMO Global Asset Management