Bitcoin and blockchain: how do you regulate something as intangible as a cryptocurrency?

Written by

Andrei Kirilenko

Published

16 April 2018

Category

Finance

Key topics

Cryptocurrency, Finance

Cryptocurrencies are increasingly popular but consumers have few protections. Regulators have the unenviable task of protecting individuals without crushing massive new opportunities for investors

So-called cryptocurrencies have created fortunes for some investors, and heavy losses for others. Their value has fluctuated wildly over the last year – the market surged to $760 billion below $250 billion within three months. Yet despite these fluctuations, likened by some pundits to a bubble, the market hasn't entirely collapsed because consumers still want to invest in digital currencies.

But are these consumers protected? The underlying blockchain technology – which keeps a virtual real-time ledger of all transactions – is secure and impenetrable. However, the market mechanisms around it are vulnerable. And unregulated. Authorities worry that consumers trading in these cryptocurrencies are potentially being exposed to theft, fraud, money laundering and possible manipulation of value.

It is important to distinguish between blockchain and cryptocurrencies when discussing regulatory touch. As mentioned above, cryptocurrencies share many of the same attributes as commodities and can be regulated efficiently as such. Blockchain is the underlying technology, which doesn't require regulation and, most importantly, has the potential to transform our world.

Legacy systems and layers of trust

In the past, encryption technology wasn't sophisticated or cheap enough for trust-free decentralised ledgers (i.e. blockchain), which is why centralised ledgers were typically held by banks, governments or other trusted counterparties: think the Lloyd's shipping register or the UK Land Registry. New encryption technology is unbelievably secure and accessible, and it promises to change the balance of power as it makes the exchange of information better, faster and cheaper.

> Many online crypto-trading platforms appear to be highly regulated exchanges when they're nothing of the sort

People will be able to conduct direct transactions across the world via virtually frictionless technology without the involvement of banks or brokers. If you wanted to send $100 to Zambia today, it would still cost more than $10 and take three to five days! Money is increasingly changing hands digitally, yet it does so via a banking sector that hails from another era. Thousands of human beings are involved in transactions conducted via legacy computer systems and structures that were designed for different times.

A useful analogy is our historical reliance on travel agents to book flights and holidays. We paid commission so agents could use booking systems we didn't have access to. But they were sometimes compromised in providing the best deal, side tracked by bonuses paid by airlines. Now we can book directly and have control of our choices. Soon we will be able to send that $100 to Zambia for free at the click of a button – via blockchain.

Regulators will ultimately have to decide how many of those intermediaries to retain. Zero trust technology – the blockchain – is expensive and requires hefty computing power, so we may begin to use systems that operate on layers of trust – partial trust – which are much cheaper to run.

Why cryptocurrencies are difficult to regulate

As we can see, blockchain technology isn’t the real regulatory issue at all – but regulating a virtual currency is potentially problematic.

> Authorities worry that consumers trading in these cryptocurrencies are potentially being exposed to theft, fraud, money laundering and possible manipulation of value

Any regulation needs to weigh up how best to protect individuals without crushing an innovative asset that promises new opportunities for investors. The cryptocurrency market is currently too small for central banks to worry about any direct financial impact upon sovereign currencies. However, consumers also expect their government regulators to protect them from financial fraud and market manipulation, whether in traditional or crypto assets.

Authorities are thinking about how best to approach this issue as the decentralised nature of cryptocurrencies creates significant challenges: if you were to slap restrictions on one cryptocurrency, it would only pop up in another form or under a different name or location and thus evade legislation.

Cryptocurrencies are mostly traded through “exchanges”, which are little more than payment platforms and which lack any form of regulation. That isn’t always apparent to investors, however, as many online crypto-trading platforms appear to be highly regulated exchanges when they’re nothing of the sort.

In late 2017, Bitcoin experienced a sizeable but healthy correction – typical of a volatile commodity asset. As a result, there is now a better popular understanding that cryptocurrencies can be a risky proposition, which will ultimately benefit their future market development. However, with volatility comes scrutiny and regulators clearly feel the mechanisms around cryptocurrency trading need appropriate oversight.

> Money is increasingly changing hands digitally, yet it does so via a banking sector that hails from another era

Commodities, securities and communications

Here is the dilemma: regulators can't just go ahead and regulate, they need a mandate or a justification to apply market regulations. Also, given cryptocurrencies aren't affected by borders, regulators ideally need to coordinate their approaches. The market is certainly sizeable enough to warrant regulation. Bitcoin's current market cap (the price per coin in US dollars multiplied by the number of coins in circulation) alone is $115 billion at the time of writing – about three times that of the largest gold ETF fund (SPDR Gold Shares).

I believe the best way to regulate cryptocurrencies is to treat them as a commodity rather than a currency, and govern them in the same way as markets in commodities such as oil, gold, frozen orange juice and financial derivatives. This has the significant benefit of deploying existing legislation and avoids regulating the asset itself. When cryptocurrencies are used instead to raise capital via an initial coin offering, they should be treated as securities rather than commodities and regulated accordingly.

We can also regulate the quality and reliability of financial advice given to investors in cryptocurrencies – an approach which has tentatively been suggested by the UK, US and Swiss authorities, who've begun to think about how best to protect investors.

Meanwhile blockchain technology – without which cryptocurrencies cannot exist – should remain neutral and unregulated, as a method of communication. After all, no one regulates your telephone.

Written by

Andrei Kirilenko

Published

16 April 2018

Category

Finance

Key topics

Cryptocurrency, Finance

Share

About Andrei Kirilenko

Senior Research Fellow and Director, Centre of Global Finance and Technology
Andrei Kirilenko was the Director of the Centre for Global Finance and Technology, a Senior Research Fellow at the Brevan Howard Centre for Financial Analysis, and Visiting Professor of Finance.

Monthly newsletter

Receive the latest insights from Imperial Business School

Sign up now

5 things executives need to know about AI and machine learning

Financial services firms expect significant growth in their use of machine learning, but are already having problems implementing it at scale. Professor Marcin Kacperczyk untangles the knot for business leaders

Read more