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CIO Viewpoint

Cryptocurrencies move from pizza to regulatory scrutiny

Investment Solutions

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On 22 May 2010, Laszlo Hanyecz paid for two pizzas using Bitcoins in the world's first cryptocurrency retail sale. At the time, the computer programmer in Florida paid the equivalent of around USD 41 for his delivery. Today, Mr Hanyecz's 10,000 Bitcoin bill would value the pizzas at more than USD 180 million. Each.

Now, faced with expectations for inflation, low-to-zero interest rates and slim returns from traditional safe havens such as sovereign debt, investors are looking more closely at cryptocurrencies.

Bitcoin was the first and remains the largest cryptocurrency with two-thirds of total market capitalisation. Bitcoin has now gained more than 320% over the past 12 months. Since its conception in 2008, thousands of other cryptocurrencies, such as Ethereum, Tether and XRP have been created, each with its own characteristics. All cryptocurrencies, proponents argue, offer a secure system for transferring money without a third party. In fact, security is so high that an estimated 20% of the existing 18.5 million Bitcoins sit stranded in wallets belonging to locked-out owners who have lost their passkeys.

Blockchain technology, which underpins cryptocurrencies, is composed of a public ledger network that records new transactions through consensus. Transactions are confirmed through computers solving cryptographic puzzles in a process known as 'mining.'

By some measures, Bitcoin and other cryptocurrencies meet standard economic definitions of a currency: they are hard to counterfeit and both durable and portable. However, they fail on two other criteria: they do not yet offer a ready means of payment and, because of their volatility it is difficult to argue that they provide a store of value, even if some physical currencies can also struggle on these too.

Cryptocurrencies' volatility are largely a function of thin market volumes and concentrated holdings, possibly in the hands of a few early-adopters known as 'whales.' The last time cryptocurrencies soared, in the space of just under one year, the price of Bitcoins fell from USD 19,783 on 17 December 2017 to USD 3,300 on 7 December 2018. On 8 January this year, the cryptocurrency traded as high as USD 41,940, then fell 26% and on 18 January, as we publish, trades 12% lower at USD 36,840 with no clear catalysts. Such volatility is also one of the greatest barriers to wider adoption.

Stéphane Monier
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Key takeaways

- Bitcoin's gains are attracting traditional investors looking for inflation havens
- Cryptocurrencies' volatility is deterring wider adoption for real-world transactions
- Central banks and regulators are describing cryptocurrencies as 'highly speculative'
- We see value, for now, in the underlying blockchain technology.

The main difference between the 2017-18 boom and bust and this year's record highs is that public interest is now backed by cryptocurrency holdings with more traditional institutional investors and hedge funds looking for a cushion from inflation.

Cryptocurrencies also took a step closer to interacting with the real world in October last year when PayPal announced that its US customers can buy, sell or hold four cryptocurrencies: Bitcoin, Ethereum, Bitcoin Cash and Litecoin. PayPal's site says that "once launched in 2021," users will be able to use their cryptocurrency account to pay the 26 million retailers signed up to its platform.

While its advocates argue that blockchain and the financial technologies that rely on it have the potential to generate innovations, its critics feel more like comedian John Oliver. In 2018, Mr Oliver described cryptocurrencies as "everything you don't understand about money combined with everything you don't understand about computers."

Attracting attention

While cryptocurrencies will evolve, they are also attracting increasing attention from regulators and central banks who see them as a threat to monetary stability because they cannot be subjected to the usual checks on capital flows. And while every transaction is transparent, they are also anonymous.

The UK's Financial Conduct Authority (FCA) offered a blunt assessment last week. "If consumers invest in these types of product, they should be prepared to lose all their money." The FCA's warning accompanied a change in regulations. Since 10 January, "cryptoasset firms" must be FCA-registered in order to tackle money laundering. The regulator also pointed to risks of volatility, complexity, opaque fees and misleading marketing.

Two days later, on 13 January, European Central Bank President Christine Lagarde said that Bitcoin needs to be regulated "at a global level," through the G7 or G20 nations. She also dismissed Bitcoin's claim as a currency. "Terribly sorry," Ms Lagarde said, "but this is an asset and it's a highly speculative asset, which has conducted some funny business and some *interesting* and totally reprehensible money-laundering activity."

The US is also bracing for more scrutiny, or some form of legal framework. Former Federal Reserve Chair Janet Yellen will become US Treasury secretary when the Biden administration is sworn into office on 20 January. Ms Yellen described Bitcoin as "highly speculative" and "not a stable store of value," when still at the Fed in 2017. In 2019, the Securities and Exchange Commission (SEC) stated that Bitcoin and nearest rival Ethereum do not qualify as securities.

The real value in cryptocurrencies, we believe, is not the currencies themselves but the potentially disruptive blockchain technology that makes them possible.

Sustainability questions

Part of cryptocurrencies' security is a result of their energy-intensive computing needs. By requiring a 'proof of work' that depends on cryptographic puzzles nicknamed 'mining' to generate a consensus around changes to the public ledger, the system has a built-in resistance to an attack from multiple accounts. However, as that systemic resilience is energy dependent, and as currency mining scales up, energy consumption will increase. World Economic Forum papers in 2017 and 2018 reported that mining cryptocurrencies consumed as much energy as mining for gold, and mining a single Bitcoin used as much energy as an average house in one month. A single Bitcoin transaction, according to estimates, uses 20,000 times more energy than a Visa payment.

Nevertheless, depending on the source of the energy, that does not have to be a sustainability issue. Blockchain is driving innovations in cooling data centres and greener energy solutions. Some blockchain-reliant platforms, such as Ethereum, are also shifting to a different verification process, known as 'proof of stake' that would reduce energy needs while offering a guarantee in transactions.

The technical hurdles to making and using blockchain-based currencies will be resolved over time. That does not mean that cryptocurrencies are either ripe for use, nor for investing as regulators take a closer look at their implications.

As Mr Hanyecz's pizza order showed, right from the start, cryptocurrencies' inherent volatility makes them difficult to use for transactions reliant on real-world pricing. This week, in January 2021, 10,000 Bitcoins might buy around 20 million pizzas. In 2013, Mr Hanyecz reportedly had no regrets about buying his order. "It wasn't like Bitcoins had any value back then."

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