BearBull
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Bitcoin: lack of an objective value is fuelling speculation

Crises and uncertainty benefit Bitcoin. Supply is designed to be increasingly scarce. Bitcoin is not a currency but an asset. The third speculative bubble is growing. Will it burst in 2018?

Key points

- Black Friday and Cyber Monday have pushed Bitcoin to 10,000 USD
- 300,000 new users on the Coinbase platform just before Thanksgiving weekend
- The mysterious Bitcoin success story
- Users are first and foremost drawn in by the deregulated nature of Bitcoin
- Crises and uncertainty benefit Bitcoin
- No need to be an expert to speculate
- Blockchain technology and mining
- An algorithm ensures increasing scarcity of supply
- The bursting of the third speculative Bitcoin bubble is planned

Black Friday and Cyber Monday have pushed Bitcoin to 10,000 USD

Coinbase, one of the largest Bitcoin trading platforms, revealed that 300,000 new users had joined the platform just before the Thanksgiving weekend. The total number has now hit 13.3 million, which is 3 million more than in September. In just one year, the number of users has tripled. The mobile application for trading Bitcoin is in the top three financial applications in terms of downloads.

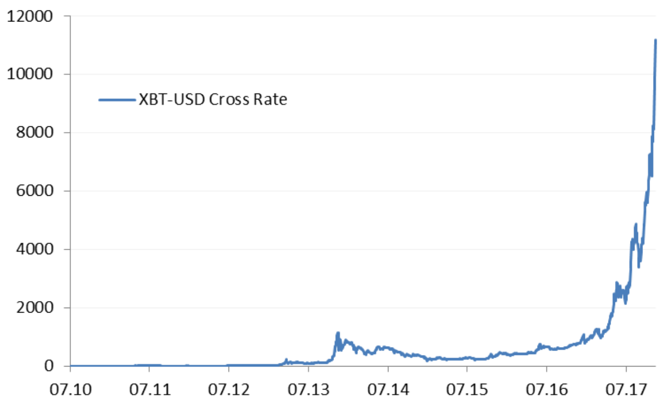
Bitcoin is now popular and increasingly used as a means of payment for online trade in the United States. However, this does not mean that it has become a real currency.

Its instability and volatility are diametrically opposed to the very definition of a legal currency.

Nonetheless, broadening its user base should help buoy up demand for Bitcoin. This perhaps explains the pick-up in prices over the last few days, bringing Bitcoin to the extraordinary level of 10,000 USD.

It has only taken ten years for the value of Bitcoin to climb from 0.001 USD to 10,000 USD, and for the concept dreamt up by its mysterious creator to become infamous around the world, veiled by the aura of the revolutionary Blockchain technology.

Bitcoin Evolution 2010-2017



Sources: Bloomberg, BBGI Group SA

The media are now reporting daily on the appetite for virtual currencies, which are not part of the structured, regulated, and centralised banking system.

The movement to promote crypto-currencies is gaining ground, with more followers every day. It is courting a growing number of speculators, who are drawn in by the record price increases and the prospect of quick, easy profit.

The mysterious Bitcoin success story

On the 19th August **2008**, Satoshi Nakamoto, an unknown element, registered the domain name bitcoin.org, and announced the birth of Bitcoin on 31st October, to utter indifference. On the 9th November, the concept of Blockchain first appeared, and two months later the first transaction between Satoshi Nakamoto and Hal Finney was carried out in block 170, marking the start of Bitcoin on the 12th January **2009**. To start with, Bitcoin was shrouded in mystery, with its creator remaining unknown to this day (Satoshi Nakamoto is just a pseudonym), but it also embodied transparency, with Satoshi Nakamoto publishing a first open version of his software on the P2Pfoundation website. At the time, Bitcoin was worth around 0.001 USD.

In **2010**, Satoshi changed Bitcoin Core's settings and limited mining to 990,000 octets. A vulnerability in the protocol enabled 92 billion Bitcoins to be created, and required the Blockchain to be corrected. A few months later, Satoshi changed the Bitcoin Consensus Rules in order to restrict the size of blocks, and then left the project on the 12th December 2010. In **2011**, Bitcoin achieved parity with the US dollar, and the market already started to speak of a speculative bubble when it hit 23 USD. In **2012**, the European Central Bank published its first report on virtual currencies, in which it mentioned that due to the extremely small size of existing systems, the risks only affect their users and do not represent an imminent systemic threat or a threat to monetary policy. However, it cautiously highlighted that the risk evaluation could be different if the use of virtual currencies spread due to technological developments.

In **2013**, there were further incidents linked to version 8.0 not being backwardly compatible with a previous version of Blockchain. It was nonetheless a key year for Bitcoin, with Germany giving it a "status" as a private currency, and Ben Bernanke expressing his positive stance regarding Bitcoin in a letter to the Senate Committee. Prices soared, hitting 500 USD, as the US Federal Reserve and the American Justice Department ventured relatively positive opinions on the topic. However, it was also at this point that we saw the first negative stances being taken by other, more hostile banks, as well as comments by former Federal Reserve Chief Alan Greenspan speaking of a speculative bubble. Whilst a growing number of online traders were allowing payment in Bitcoin, the network was victim of another massive, organised attack by several trading platforms. Bitcoin reacted with a new development- the release of Bitcoin Core 9.0.

The United States gave Bitcoin fiscal status on the 24th March **2014**, with it being treated as an asset from then on. Any gains would therefore be taxed as capital gains. Miners' revenue would also be taxable on the payments received in Bitcoin. Japan adopted a similar position, giving it status as a commodity. The Federal Reserve Board of Governors published a report which made Bitcoin climb even further, stating that Bitcoin is more of a curiosity than a threat as the transactions only represent a tiny fraction of global financial flows. It is therefore not currently a threat to the banking system. It did, however, point out that deposits are not guaranteed and that various security problems are proving a barrier to more users. More surprisingly still, the Board of Governors played down its role in financing criminal activities, stating that the illicit applications and uses of Bitcoin are common, but not endemic.

In **2015**, the winds changed, becoming even more favourable for Bitcoin. No doubt thanks to the support of US politicians, Bitcoin was receiving an ever more enthusiastic welcome from the media and the public, as well as from legislators who were trying to structure the use of the crypto-currency, unable to fight against it. Despite further Bitcoin thefts on trading platforms, as well as collapses and cases of fraud, surprisingly Bitcoin still exudes high security. On the 17th September that year, the CFTC (Commodity Future Trading Commission) started to consider Bitcoin as commodity, in the same way as one would consider wheat, gold, or crude oil.

The attacks continued on trading sites in **2016**, without wearing away at the confidence of the public, who seemed increasingly hungry for Bitcoins. At the same time, the European Commission was trying to subject virtual currency trading platforms and stock portfolio service providers to directives on fighting money laundering.

In January **2017**, Bitcoin hit 1,000 USD, before dropping -30% following control measures for trading platforms put in place by the Chinese authorities. The Japanese authorities' reaction was the polar opposite; they recognised virtual currencies as a legal form of payment in April. On 31st October, the CME Group (Chicago Mercantile Exchange) announced its intention to create contracts in Bitcoin in the long term.

In November, Bitcoin hit 10,000 USD, with its valuation having increased ten-fold in less than ten months, amounting to around 170 billion US dollars. As such, it has surpassed Mastercard's stock market capitalisation (160 billion USD) and would be the 25th biggest stock on the S&P 500. Nevertheless, although Bitcoin's popularity has only grown over the past ten years, making it one of the best known "brands" in the world today, the general public, and indeed the financial community, is largely unaware of how it functions.

The very valuation of Bitcoin continues to be very problematic for the platform, as there is no valuation model adapted to this highly unusual asset.

Users are first and foremast drawn in by the deregulated nature of Bitcoin

The development of digital technologies and mobile applications has made it very easy to access Bitcoin, allowing users to easily carry out certain transactions or stock an asset without using the banking system. Bitcoin is increasingly used to pay for purchases with traders who accept the crypto-currency as an alternative means of payment. Although initially it was thought that these transactions could be processed without any additional charge, as is the case for some classic credit cards, this is no longer entirely true. Transactions fees tend to increase. Users clearly appreciate the supposedly guaranteed anonymity of transactions, lower transaction fees, and the freedom to take part in the network with no constraints and no intermediary for trading, stocking or transferring sums with no real limits. Indeed, security and discretion are often cited as key factors. When a user spends their Bitcoin, the network checks and ensures that the private key corresponds to the Bitcoins spent. The process remains completely private and does not reveal any user information. Here, it should be pointed out that the concept of anonymity of transactions has likely already hit certain walls, due in particular to the emergence of transaction identification and tracing software. It is an organised peer to peer system in which each participant in the network incorporates their transaction and checks those of other participants. This means that participants are entirely free of the constraints and the specific features required by the banking system.

Crises and uncertainty benefit Bitcoin

Bitcoin was certainly initially perceived as an independent means of payment which was safer than the US dollar or the Euro when it was created in 2009 and systemic risks were lashing the financial markets, causing both a fall in markets and increased volatility on currency markets. Certain participants have consistently temporarily used Bitcoin as a safe haven asset during each financial crisis, causing spikes in prices due to excessive, concentrated demand. In 2011, the collapse of stock markets in the wake of the Greek public debt crisis and its implications on the Eurozone helped to fuel a 2600% rise in Bitcoin in a few months. In 2013, when the Cypriot crisis was at its height, Bitcoin grew 920% in less than six months.

No need to be an expert to speculate

The old adage that there is no need to be an expert to speculate also holds true for Bitcoin. In the case of Bitcoin, it is perhaps also one of the fundamental reasons to participate with no fear and no reserve in the current frenzy gripping the rise of this crypto-currency. Indeed, it is really not necessary to understand the technical ins-and-outs of how Bitcoin works to speculate on its rise, and, in doing so, risk waving goodbye to the sums that have been converted. All any user needs to do is create a Bitcoin portfolio on their computer or mobile telephone to get a Bitcoin address. Sometimes this type of system is compared to an email exchange. A Bitcoin address seems to work like an email address, the difference being that it is only used for one transaction. The user has a private key, their digital signature, which is stored on their computer or an online server, and which enables them to buy, sell, and spend the Bitcoins in their portfolio with no difficulty.

This key is supposed to be unbreakable and prevent all fraud or corruption of the Blockchain, which provides another layer of security for speculation. Access to speculation on Bitcoin is very democratic and simple, thanks to specialised trading software having been developed.

Blockchain and mining technology

The Bitcoin network is based on Blockchain technology- a sort of giant accounting ledger containing all transactions carried out since the network came into being, without exception. As such, this ledger should grow exponentially in line with use of Bitcoin as transactions and transfer of assets between Bitcoin portfolios rise. The signature, or private key, signs the transaction, which is then incorporated into a block, which is then quickly confirmed by the network via its mining process. This process ensures that each transaction is constantly verified to guarantee system security and prevent Bitcoins from being used twice. It is based on a network of inter-connected computers carrying out calculations at high speed, for which remuneration is given.

The Bitcoin network will have to deal with its growing needs in terms of calculation power as the use of this type of crypto-currency develops. Bitcoin mining is the process by which transaction blocks are verified and secured. It can be summed up by saying that mining is carried out by “miners” who must undertake increasingly complex IT calculations for the network in order to confirm transactions. In practice, mining operations are carried out by computers which are configured to calculate mathematical cryptographic hashing functions.

Algorithm ensures increasing scarcity of supply

One cannot forget the basic Bitcoin algorithm when trying to understand the process that creates units. The software and function used to create Bitcoins will eventually limit the number of Bitcoins to 21 million units. The mathematical process can be summarised as limited creation by a fixed number of Bitcoins at 10-minute intervals, which will be halved every four years until the total maximum number of 21 million is hit in around the year 2140. In other words, between 2008 and 2012, 50 Bitcoins were created every 10 minutes, to give 10,500,000 units, whilst between 2012 and 2016 only 25 Bitcoins were created over the same interval, giving 5,250,000 units. Between 2016 and 2020 only 2,650,000 Bitcoins will be created, and so on.

As such, fewer and fewer Bitcoins will be created over time, despite the fact that demand seems to be growing. This explains the magic rise in Bitcoin.

The bursting of the third speculative Bitcoin bubble is planned

The latest -30% correction to Bitcoin was sparked by the platform abandoning an expected plan to split Bitcoin into two Blockchains and two separate crypto-currencies. This split was supposed to resolve the explosion of energy costs required for Bitcoin mining, which demands increasing IT resources, which would hamper the development of the digital currency.

However, the community did not manage to reach the consensus they need to authorise such a change. A few weeks earlier, a -25% slide had been caused by a change in regulation in China; this followed on from another -25% drop posted in March. Nonetheless, the inordinate rise in Bitcoin has continued, bringing it to 10,000 USD.

1000%, without anyone really being able to give Bitcoin an "objective" value

In reality no valuation model exists to value an asset of this type. Bitcoin remains an abstract concept, which network participants want to be able to give a value at a particular moment in time, but which seems very considerably swayed by supply and demand. As the basic Bitcoin algorithm limits the creation of units to an absolute number (maximum 21,000,000), and in time (number of units per 10-minute interval halving after each four-year cycle), supply is, by definition, finite.

As such, all that is needed is for Bitcoin to gain in notoriety and in investors' estimation for the Bitcoin market to be systematically imbalanced. This is exactly what has been happening since its creation. The effect was magnified in 2017, with the ten-fold increase in Bitcoin's value, to such a degree that the current value of Bitcoins in circulation (170 billion USD) is comparable to the market capitalisation of PepsiCo or Mastercard, and is three times the value of UBS.

Values Compared with Bitcoin

	Value in Billion USD
All cryptocurrencies - Market capitalization	322
Bitcoin - Market capitalization	178
Apple - Market capitalization	885
Mastercard - Market capitalization	162
2016 Gold Mine production in today prices	149
FED Total Assets	4450
ECB Total Assets (in USD)	5242

Sources: Bloomberg, BBGI Group SA

Bitcoin's current valuation is high, and is already showing some of the characteristics of a speculative bubble. However, for now the current trend is firmly rooted and persuading those holding Bitcoins to hold on a little longer before taking profit…is a crash on the cards for 2018?

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