Topic of the week for discussion: 18th to 24th Jan 2018

Topic: BITCOIN – VIRTUAL CURRENCY

Topic Introduction

"Bitcoin is the beginning of something great: a currency without a government, something necessary and imperative."

Bitcoin was the first of what have become known as "cryptocurrencies". Created by, a mysterious developer who uses the pseudonym Satoshi Nakamoto, Bitcoins exploded on to the financial scene in 2013, following enormous increase in their value. Bitcoin was created as a way to anonymously transact and send money between two or more parties. While we can guess that the original purpose of Bitcoin was built to democratize commerce and allow peer to peer global transactions without paying a fee to the middleman. Released initially in January 2009, Bitcoins started coming into process in November 2017.

Bitcoin is an electronic or digital currency that works on a peer-to-peer basis. This means that it is decentralized and has no central authority controlling it. Like currency notes, it can be sent from one person to another, but without a central bank or the government attempting to track it. The system depends on cryptography to control the creation of the currency. While no one authority controls the generation of the coins or tracks them, the system itself is designed in such a way that the network maintains a foolproof system of the record of every transaction as well as tracking issuance of the currency.

1 Bitcoin equals 727811.44 Indian Rupee. One bitcoin is worth roughly about $1,200 now. An early investor in Snapchat has been quoted on the Web as saying that by 2030, the value could be as high as $500,000. One of the reasons that could prompt you to buy a bitcoin today is not so much to use it for payment online but as an investment.

The unit of account of the bitcoin system is bitcoin. Small amounts of bitcoin used as alternative units are millibitcoin (mBTC), bit (ƀ) and satoshi (sat). Named in homage to bitcoin's creator, a satoshi is the smallest amount within bitcoin representing 0.00000001 bitcoins, one hundred millionth of a bitcoin.

Bitcoins are not like the coins in your purse or wallet. They are essentially a line of numbered "code" - instructions used in computer programming. However, once purchased they can be exchanged for some goods and services, like normal money.

Value of Bitcoin is determined on the basis of demand and supply. New Bitcoins are released at a rate of about 25 new coins every 10 minutes. But the flow will dry up as they have been designed to ensure that no more than 21 million will ever exist. Today, around 16 million are in use.

You can obtain Bitcoins in a number of different ways. It's possible to accept them as payment for goods or services. You can also buy them directly from individuals or special websites called 'exchanges' that will swap Bitcoins for regular currency. Bitcoin wallets are simply specially-designed programs that store your Bitcoin, the same way a regular wallet would store your cash.

The beauty of this cryptocurrency is that if you receive a bitcoin from another, you can be as sure of the payment as you would on receiving physical currency notes, with the same anonymity ascribed to it. This anonymity is lacking in other forms of digital payment such as online banking or e-wallets.

Bitcoins can be sent digitally to anyone who has a bitcoin address anywhere in the globe. One person could have multiple addresses for different purposes – personal, business and the like. Receivers can get to spend them within minutes of receiving the coins. Once given away, like currency, there is no getting them back, unless the receiver decides to give them to you. A bitcoin is not printed currency but is a non-repudiable record of every transaction that it has been through. All this is part of a huge ledger called the blockchain.

A bitcoin is generated when an entity, i.e. a person or a business, uses software power to solve a mathematical puzzle that makes the blockchain more secure. The difficulty level of solving the problem is high enough to ensure that it takes time to do it.

And unlike traditional currency that is inflationary in nature, the bitcoin is a deflationary currency. In other words, if there are only so many bitcoins in use, and the demand for those rises, the value of a bitcoin would, logically, rise.

Working - When you send a bitcoin to a receiver, the transaction is included in the blockchain and broadcast to the network. The blockchain ensures that the same bitcoin is not spent twice by the same user. A computer network validates the transaction using algorithms so that the transaction becomes unalterable. Once validated, the transaction is added to others to create a block of data for the ledger.

While some countries have explicitly allowed its use and trade, others have banned or restricted it. The currency is being traded on exchanges, and companies have even made investments in virtual currency-related ventures. These activities portray a technically well-established virtual currency system, but there is still no uniform international legal law covering the use of bitcoin.

There are few countries which are wary of bitcoin because of its volatility, decentralized nature, perceived threat to the current monetary system, and link to illicit activities like drug dealing and money laundering. Some of these nations have outright banned the digital currency while others have tried to cut off any support from the banking and financial system essential for its trading and usage. Ten Countries which include Bangladesh, Bolivia, China, Ecuador, India, Iceland, Russia, Sweden, Thailand and Vietnam have banned Bitcoin.

The fact that bitcoin can be anonymously used to conduct transactions between any account holders, anywhere and anytime across the globe, makes it attractive to criminal elements. They may use bitcoins to buy or sell illegal goods like drugs or weapons. Most countries have not clearly made determinations on the legality of bitcoin, preferring instead to take a wait-and-see approach. Some countries have indirectly assented to the legal usage of bitcoins by enacting some regulatory oversight. However, bitcoin is never legally acceptable as a substitute for a country's legal tender.

No one really knows what the future holds for Bitcoin. There are very serious debates about how Bitcoin will adapt after reaching the 21 million maximum and whether these original rules need to be changed. The more that people desire a form of currency to enact transactions, the more that the currency is worth. If you cannot mine more Bitcoins to meet the increasing demand for their ownership, then their value relative to all goods must necessarily increase.

At the moment, the transaction fees for Bitcoin mining represent a relative pittance compared to the value of the Bitcoin rewards, so either the value of the transaction fees will need to increase or the cost of performing Bitcoin mining will need to fall, most likely through advances in the block-chain technology that underpins the Bitcoin system.

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