

Bitcoin - The Future of Currency?

"Bitcoin will do to banks what email did to the postal industry." – Rick Falkvinge

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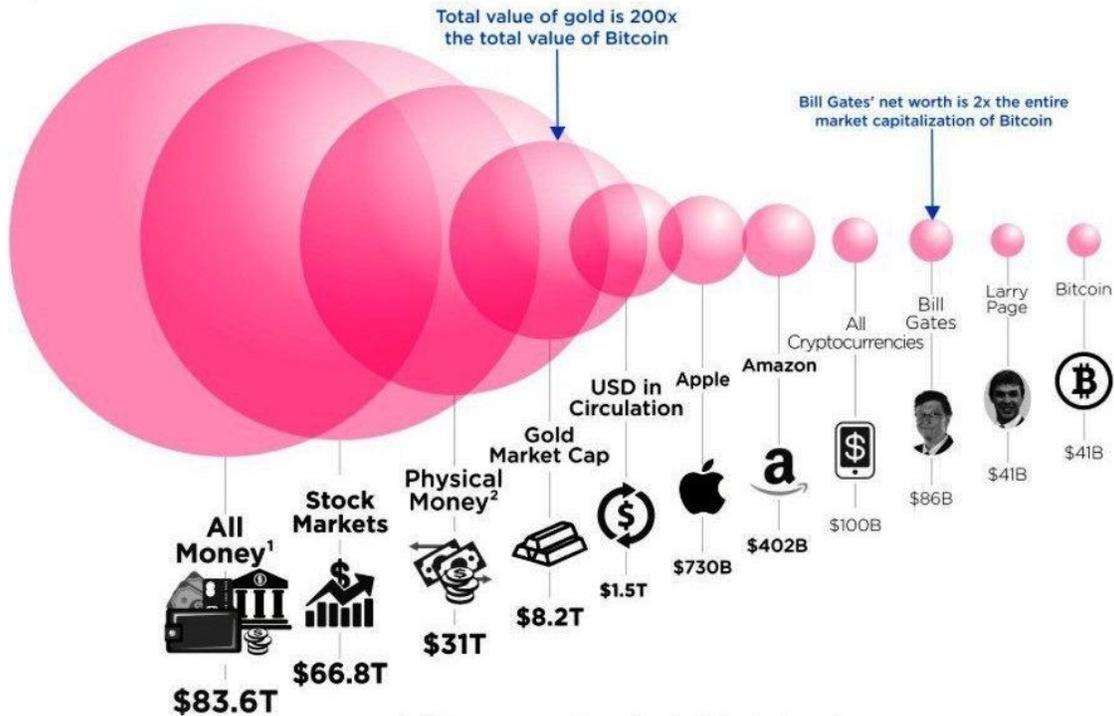
Category: Finance

In finance, the popular quote “the greater the risk, the greater the reward” frequently resonates at business schools as well as investment seminars. However, it is important to understand the different elements of risk before making any major investments. Risk does not only imply the possibility of significant potential reward, but also the potential for severe loss. In the last few centuries, innovation has helped man create various types of tools (paper money, stocks, bonds, mutual funds, options, futures, swaps, etc.) that have shaped our financial world. With rapid technological advancements and digitalization in recent years, financial instruments have become all the more complex. Hence, it is not surprising that one of the latest innovations in the financial world has come in the form of cryptocurrency (digital currency) popularized by Bitcoin. This virtual currency which was worth \$0.05 per unit in 2010 has increased 52 fold during the last seven years, and is currently being traded at \$2,700 per unit.

What is Cryptocurrency?

A cryptocurrency is a digital or virtual currency that uses cryptography for security. In recent times, there has been a lot of speculation as well as volatility in the world of cryptocurrency. As of July, 2017, the total market value of all types of cryptocurrency stood at \$100 billion out of which Bitcoin’s share was \$41 billion (coinmarketcap.com). A defining feature of a cryptocurrency, and arguably its most endearing allure, is its organic nature; it is not issued by any central authority, rendering it theoretically immune to government interference or manipulation. So, using cryptocurrency makes easier to transfer funds between two parties in a transaction, and these transfers are done with minimal processing fees, allowing users to avoid the fees charged by banks and financial institutions. On the other hand, because cryptocurrencies are virtual and do not have a central repository, a digital cryptocurrency balance can be wiped out by a server crash if a backup copy of the holdings does not exist. Also, cryptocurrencies are not immune to the threat of hacking.

Putting the World's Money into Perspective



Bitcoin

Bitcoin is a cryptocurrency and a digital payment system, which is the first decentralized peer-to-peer payment network created in 2009 by an unknown person or group using the alias Satoshi Nakamoto. It is powered by its users with no central authority or middlemen. Bitcoin is gradually becoming competition for intermediaries like credit card companies or PayPal, which charges based on transaction fees. It also provides a great convenience when traveling as it is a universal currency and does not need conversion from one currency to another. From a user perspective, Bitcoin is nothing more than a mobile app or computer program that provides a personal Bitcoin wallet and allows a user to send and receive Bitcoins with them. This is how Bitcoin works for most users. Behind the scenes, the Bitcoin network shares a public ledger called the "block chain". This ledger contains every transaction ever processed, allowing a user's computer to verify the validity of each transaction. The authenticity of each transaction is protected by digital signatures corresponding to the sending addresses, allowing all users to have full control over sending Bitcoins from their own Bitcoin addresses. In addition, anyone can process transactions using the computing power of specialized hardware and earn a reward in Bitcoins for this service. This is often called "mining".

Several marketplaces called “Bitcoin exchanges” allow people to buy or sell Bitcoins using different currencies. Mt. Gox is the largest Bitcoin exchange. People can also send Bitcoins to each other using mobile apps or their computers. It’s similar to sending cash digitally. Or, people can compete to “mine” Bitcoins using computers to solve complex math puzzles. This is how Bitcoins are created. Interested individuals buy Bitcoins and store them in a Bitcoin wallet. A Bitcoin wallet is a software program where Bitcoins are stored. Wallets facilitate sending and receiving Bitcoins and gives ownership of the Bitcoin balance to the user. These wallets come in many forms; desktop, mobile, web and hardware are the four main types of wallets. Just as Bitcoins are the digital equivalent of cash, a digital wallet is analogous to a physical wallet.

Applications of Bitcoin

When a person pays through a cheque, it takes some time for the funds to transfer from one bank account to another. This is usually done for clearing purposes which is to ensure it is a legal transaction and devoid of fraud. Bitcoin transactions, however, are generally much faster. With Bitcoin, you can be your own bank, as it is possible to send and receive Bitcoins anywhere in the world at any time. Expats can use Bitcoin as an inexpensive alternative to send money home and it is expected that the percentage of Bitcoin – based remittances will sharply increase with greater awareness in cryptocurrencies. In addition, international payments are easy and cheap because Bitcoins are not tied to any country or subject to regulation. There has been steady growth of international money-transfer services that use Bitcoins to move cash from one country to another. Bitcoin can also be used to buy merchandise anonymously. It is gradually becoming an alternative for online shoppers and vendors as a cost-effective payment system. Though it has a useful purpose in the world of e-commerce, many people tend to buy Bitcoin as an investment, which has also given rise to speculative trading.

Risks associated with Bitcoin

Bitcoin falls into the category of high risk as well as potential for high return. It is an unregulated form of currency and can thus be easily targeted by people for black marketeering, money laundering, illegal activities and tax evasion purposes. Hence, governments may seek to regulate, restrict or ban the use and sale of Bitcoins, and some already have. The lack of uniform regulations about Bitcoins (and other virtual currencies) raises questions over their longevity, liquidity and universality. Additionally, Bitcoin exchanges are entirely digital and, as with any virtual system, are at risk from hackers, malware and operational glitches. In Bitcoin's short history, the currency has

been subject to over 40 thefts, including a few that exceeded \$1 million in value. Also, if a hacker gains access to a Bitcoin owner's computer hard drive and steals his private encryption key, he could easily transfer the stolen Bitcoins to another account. Besides, like with any high-risk investment, Bitcoin values can fluctuate severely. We know that the value of Bitcoin has seen wild swings in price over its short existence. Furthermore, if cryptocurrencies are banned worldwide or Bitcoin loses its charm to competition, these digital units may lose value and could even become worthless.

Is this just a speculative mania?



The price of Bitcoin has been rising and made record high of \$3018.54 on June 11, 2017. In recent times, the word “Bitcoin” has become synonymous to the word “bubble”. However, the question of what has driven the price to such height is equally important. One main factor for soar in price was the formal recognition of the cryptocurrency by Japanese government in April, giving it greater legitimacy in Asia’s major economy. Similarly, Russia has also moved towards legalization of such currencies. Many people feel perplexed as they are uncertain if the steep rise in price is just a speculative mania, or if Bitcoin has taken on a more substantial role as medium of exchange or a store of value. Put another way, is Bitcoin like a tulipmania, a gold rush, the dotcom bubble, or is it one of the disruptive technologies of the future. One of the recent surveys showed that most users buy and sell Bitcoin for speculative purposes rather than to buy things or send cash to others. People are now treating Bitcoin as a commodity, like gold or silver, in the hope that its value will rise and yield a trading profit. However, people should put emphasis more on its application and possibilities rather than buying it just for speculation.

Conversely, there are people who argue that the word “bubble” cannot be associated with Bitcoin due to a limited supply of Bitcoins – 21 million units to be specific. With increased usage and wider adoption of Bitcoin, the demand for Bitcoins is always increasing. With a constant supply and increasing demand, the only factor in the equation that can budge is the price of Bitcoin – by going up. Hence, assuming increased demand, the price of Bitcoin should gradually increase in the long term. In developed countries, high amount is being spent on mining so that the bubble doesn't burst.

Future of Bitcoin

What does the future hold for this lucrative currency? Some analysts speculate that the price could hit \$100,000 in 10 years while others claim it will fall to zero. If history is any guide, the latest surge in Bitcoin's price is likely to end in tears for many of the people who are frantically buying up the virtual currency. There have been three previous times when Bitcoin's value soared like this and then peaked – once in 2011 and twice in 2013. Each boom was followed by a dramatic crash. However, no one can say with certainty what will become of Bitcoin. It is mostly unregulated, but that could change. Governments are concerned about taxation and their lack of control over the currency. There is one group who are concerned that governments may not be able to properly oversee cryptocurrency activities and that it could become even more of a conduit for criminal activities, such as drug dealing. Whereas, other group says government being too obstructive may prevent a lot of the useful innovation that is likely to come about at the same time.

Bitcoin in Nepal

In Nepal, Bitcoin is still in its infancy stage. Many people still do not know what Bitcoin is and very few who do are either youngsters or early adopters. Many people tend to wait for some kind of government confirmation before adapting to new technologies – first, to ensure that it is within legal bounds, and second, to make sure there is some kind of regulated entity to ensure its fairness and transparency. They do not want to take risk and invest time and resources in an unproven technology that is used by a miniscule percentage of country's population. Besides, most people do not understand the potential as well as processes involved in such digital currency. Not having proper knowledge about any investment opportunity makes it even riskier for the individual concerned.

People also fear accepting Bitcoin as it is not regulated by the Government of Nepal (GoN). Central Bank of Nepal calls uses and transactions of Bitcoin by Nepali citizens to be illegal in Nepal. One of

the main concerns for the Bank is its inability to track transactions and a severe likelihood of money leaving the country using Bitcoins. As GoN is highly restrictive in terms of foreign currency outflow, the future of Bitcoins in Nepal is bleak. The government also fears that Bitcoin could be more attractive to criminals and money laundering institutions because it can be used to make private and irreversible payments. This might be true, but these features already exist with cash and wire transfer, which are widely used and well-established.

The government should realize that digital currencies will do more good to the people of the country than harm. Digital currencies have brought revolutionary change in the world economy. Its acceptance has accelerated; governments around the world are realizing its importance and value. Even banks, remittance companies and other financial institutions are not ready to make Bitcoin legal as it poses a direct threat to their businesses. However, if the government and financial sectors work towards establishing a proper system, blockchain technology solutions can be integrated in the Nepalese banking system to make banking simple and convenient for customers. Recently, Indian private sector bank, Axis Bank, started usage of blockchain for its operations. They partnered with Ripple to offer the cross-border payments solution. As against the normal system which took them up to five days for money transfer, block chain does the same instantaneously. In this way, they used innovation in technology to enable real time affordable money transfers. Such innovation can add great value in Nepal's financial industry as well.

One major fear that haunts novice investors is their lack of confidence in the party on the other side on transaction. With possibility of fake exchanges and accounts, investors could get the short-end of the stick when transacting cryptocurrencies. People have also become hesitant to accept Bitcoin due to misconceptions about theft and security breaches that they hear that happened on diverse exchanges and businesses. Although these events are unfortunate, none of them involve Bitcoin itself being hacked, nor imply inherent flaws in Bitcoin. Hacking or theft in bitcoin is almost impossible as they use SHA256 algorithm and public key cryptography. Bitcoin's most common vulnerability is in user error. Bitcoin wallet files that store the necessary private keys can be accidentally deleted, lost or stolen. Fortunately, users can employ sound security practices to protect their money or use service providers that offer good levels of security and insurance against theft or loss. Mining Bitcoin is also difficult in Nepal due to requirement of high-end computers as well as high electricity cost and lack of uninterrupted high-speed internet. Hence, it may be more logical for People in Nepal to buy Bitcoins instead of buying mining equipment.

Bitcoins have great potential for a country like Nepal. Governments too should realize Bitcoin's endless possibilities and formulate regulations that will support innovation and growth. They should be open minded and see Bitcoin as a revolutionary technology that will allow people and institutions to transfer funds instantly and securely without any middlemen. It also has the potential to significantly expand international commerce, support financial inclusion, and also transform how we shop, save and do business in ways unimaginable to mankind. People should also understand the risks involved in digital currencies along with the reward potential before investing. It is best to be properly educated rather than running after rumors in the market. Though the risk of investing is definitely high, so is the risk of missing out. Hence, understanding the nuts and bolts of Bitcoin will be very helpful in making well-informed decisions.

What's next?

Bitcoin has made plenty of headlines since the cryptocurrency first emerged in 2009, but more recently, attention had turned to its underlying technology - the blockchain. The technology that underpins Bitcoin could be used to support online voting, cloud computing, land registration, etc. The decentralized nature of blockchain brings a number of benefits – higher security as the ledger is shared by thousands of computers, transparency as all transactions are publicly recorded, and decreased risk. Blockchain applications represent one of the more transformational technologies to emerge – one that has the potential to change how financial institutions manage their data, applications, transactions, and business processes. There is a high possibility that future of finance could be dominated by blockchain technology. A traceable global currency complete with an efficient infrastructure will not only result in massive cost reduction for all market participants, it will change global banking.

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