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Bitcoin, The Crypto Currency Phenomenon

Bitcoin. The digital currency, has been all over the news for years. But because it's entirely digital and doesn't necessarily correspond to any existing fiat currency, it's not easy to understand for the newcomer. This article is a brief overview of what Bitcoin is, how it works, and its possible future role in the global economy.

How Bitcoin Works

In layman's terms: Bitcoin is a digital currency. It isn't simply an assigned value of money stored in a digital account, like a bank account. Bitcoin has no corresponding physical element, like coins or paper notes (despite the popular image of an actual coin, to illustrate it). The value and verification of individual Bitcoins are provided by a global peer-to-peer electronic network.

Bitcoins are blocks of ultra-secure data that are treated like money. Moving this data from one person or place to another and verifying the transaction, i.e. spending the money, requires computing power.

Users called "miners" allow their computers to be used by the system to safely verify the individual transactions. Those users are rewarded with new Bitcoins for their contributions. Those users can then spend their new Bitcoins on goods and services, and the process repeats.

Bitcoin and its many derivatives are known as cryptocurrencies. The system uses cryptography—extremely advanced cryptography called a blockchain—to generate new "coins" and verify the ones that are transferred from one user to another. The cryptographic sequences serve several purposes: making the transactions virtually impossible to fake, making "banks" or "wallets" of coins easily transferable as data, and authenticating the transfer of Bitcoin value from one person to another.

Before a Bitcoin can be spent, it has to be generated by the system, or "mined." While a conventional currency needs to be minted or printed by a government, the mining aspect of Bitcoin is designed to make the system self-sustaining: people "mine" Bitcoins by providing processing power from their computers to the distributed network, which generates new blocks of data that contain the distributed global record of all transactions. The encoding and decoding process for these blocks requires an enormous amount of processing power, and the user who successfully generates the new block (or more accurately, the user whose system generated the randomized number that the system accepts as the new block) is rewarded with a number of Bitcoins, or with a portion of transaction fees.

In this way, the very process of moving Bitcoins from one user to another creates the demand for more processing power donated to the peer-to-peer network, which generates new Bitcoins that can then be spent. It's a self-scaling, self-replicating system that generates wealth or at least, generates cryptographic representations of value that correspond to wealth.

How Are Bitcoins Spent?

In layman's terms: Imagine buying goods at the supermarket with a debit card. The transaction has three elements: the debit card, corresponding to a bank account and the balance available to spend. The bank itself that verifies the transaction, and the transfer of money, and the store that accepts the money from the bank and finalises the sale. A Bitcoin transaction has, broadly speaking, the same three components.

Each Bitcoin user stores the data that represents his or her amount of coins in a program called a wallet, consisting of a custom password and a connection to the Bitcoin system. The user sends a transaction request to another user, buying or selling, and both users agree. The peer-to-peer Bitcoin system verifies the transaction via the global network, transferring the value from one user to the next and inserting cryptographic checks and verification at many levels. There is no centralized bank or credit system: the peer-to-peer network completes the encrypted transaction with the help of Bitcoin miners.

How are Bitcoins turned Into "Real" Money, and Vice-Versa?

First of all, Bitcoin is real money, in the purely economic sense. It has value and can be traded for goods and services.

It's unlikely that Bitcoins can be used to pay day to day expenses, such as the power account, or buy groceries totally in Bitcoin (though those services do exist in some countries, and they are growing), but there is a rising amount of online goods and services that can be accessed with a bitcoin wallet.

At this point in time however, Bitcoin simply can't replace conventional, government-issued currency. People who may have Bitcoins available and wish to spend some on a new home appliance or car for example, will probably find that the retailers of these goods don't have the infrastructure to accept them as payment. If an individual has Bitcoins and cash in their country of domicile is required, or they have currency and want to convert it to Bitcoin for buying, selling, or investing, then a conversion service will need to be accessed.

Converting Bitcoin into more standard currencies like US Dollars, British Pounds, Japanese Yen or Euro is very much like converting any of those currencies from one to the other. But since Bitcoin has no cash component, and isn't available to be accepted by conventional credit or debit transactions, Bitcoin holders need to find a dedicated market exchange.

Bitcoin's Strengths

Anonymity and Privacy

Bitcoin purchases between individual users are entirely private: it's possible for two people to exchange Bitcoins or fractions of coins between wallets simply by exchanging hashes, with no names, email addresses, or any other information.

No Required Transaction Fees (For Now)

Conventional non-cash purchases include transaction fees: pay with a Visa credit card, and Visa will charge the merchant a few cents to verify the transaction. And of course, the cost of that charge is passed on to the user in the form of higher prices for goods and services.

At the moment, there are no mandatory transaction fees for Bitcoin. Individual users and merchants can submit their purchases to the peer-to-peer network and simply wait for it to be verified on the next block.

No Central Governing Authority or Taxes

Because Bitcoin isn't recognized as an official currency by any country, buying and selling Bitcoins themselves and using them to purchase goods and services isn't regulated. So anything that is bought with Bitcoins is not subject to a standard transaction based tax, or any other tax that's normally applied to that item or service. This can be a significant financial benefit to individuals if they are wealthy enough and sufficiently interested to do a lot of business exclusively in Bitcoin.

Bitcoin's Weaknesses

Possible Government Intervention

Governments around the world are almost certain to take steps to ensure the integrity of existing currencies, and taxation structures. Already, the US government and other governments are looking into Bitcoin for a variety of reasons. More scrutiny of Bitcoin and other cryptocurrencies by governments around the world is likely to come in the future.

No Monetary Sovereignty

It is not a "recognized" sovereign currency—that is, it is not backed by the full faith of any governing body. While this could be seen as strength, the fact that Bitcoin is a currency which is accepted only on the perceived value of other bitcoin users makes it highly vulnerable to destabilization. If confidence in the Bitcoin market is suddenly and drastically reduced—for example, if a major government declared Bitcoin use illegal, or one of the largest Bitcoin exchanges was hacked and lost all of its stored value—the value of the currency would be severely compromised, and investors could lose huge amounts of money.

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Lack of Protections

The Bitcoin network has no built-in protection mechanisms when it comes to accidental loss or theft. For instance, if a Bitcoin owner loses the hard drive where their Bitcoin wallet file is stored (think corruption or drive failure with no backup), the Bitcoins held in that wallet are lost forever to the entire economy.

Additionally, if a Bitcoin wallet file is stolen or compromised and the Bitcoins contained within it are spent by the thief, the double spending protection mechanism built into the network means the rightful owner has no recourse. The Bitcoin network only knows that the bitcoins in the compromised wallet file are valid and processes them accordingly. In fact, there is already malware circulating which is designed specifically to target and steal Bitcoins.

Black Market Appeal

A central principle to the design of the Bitcoin system is that there is no single transactional processing authority. As a result, no single user can be locked out of the system. Combine this with the inherent anonymity of transactions, and you have an ideal medium of exchange for dubious or illegal purposes.

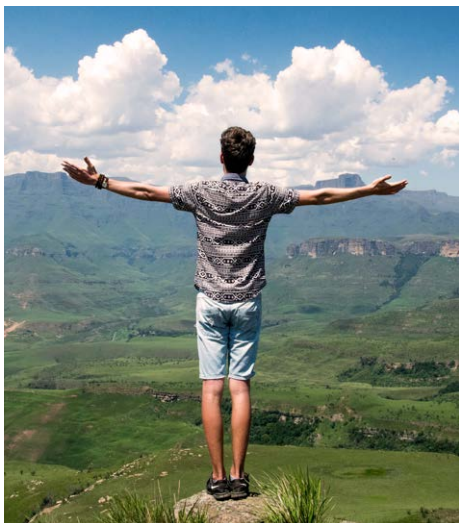
While this is not exactly a weakness in Bitcoin (after all, drug dealers using cash don't undermine the value of the currency itself), the unintended consequence of its usage for dubious purposes could be considered one. Recently, the US Treasury Department applied money laundering rules to bitcoin exchanges. Other jurisdictions are almost certain to follow the US Treasury with anti-money laundering initiatives.

In Summary

Bitcoin and other cryptocurrencies are fascinating developments, reflecting the desire for participants in the information age to lessen their dependency on the economic and legal systems that have propped up institutions from well before the 21st century. It's made many individuals very wealthy since it was created, but it has also lost significant wealth for many others. The long-term viability of Bitcoin as a medium for wealth has yet to be determined.

Preaching to the Converted

by Rodney Hartles, Senior consultant, Accordia Hamilton



Late last year while on a boys weekend to Melbourne with my son, he gave me a book to read called *"The Slight Edge"* by Jeff Olson. My initial reaction was why I would want to read this book as I already have a number of publications covering this type of subject. Anyway, I decided to read the book and find out what he was so excited about. I was pleased that I did.

Most of you reading this will have already achieved a significant level of personal and financial success in life and are at a stage where you can reflect with satisfaction on your achievements. So, while I am "preaching to the converted" the real question is whether on reflection, you could you have done things differently or better. After reading this book I have taken another look at my own life and decided the answer is a definite YES!

I am sure many of you have wondered why compared to many people that you know, why you have made it, and why they haven't quite achieved the same levels of success as you have. Without even knowing it, you might have well been practicing the concepts from *"The Slight Edge"*.

Research has confirmed that only 5% or 1 in 20 achieve the level of success and fulfilment they hope for. One of the most powerful and simple techniques I have learnt from the book is to read 10 pages a day of a motivational or inspirational book, regardless of what stage in life you may be. I have a number of them, and one by one I am working my way through them again.

A few quotes I have taken from the "Slight Edge" book are included below:

> Your philosophy creates your attitudes, which create your actions, which create your results, which creates your life.

> Simple daily disciplines – repeated consistently over time – add up to the difference between failure and success.

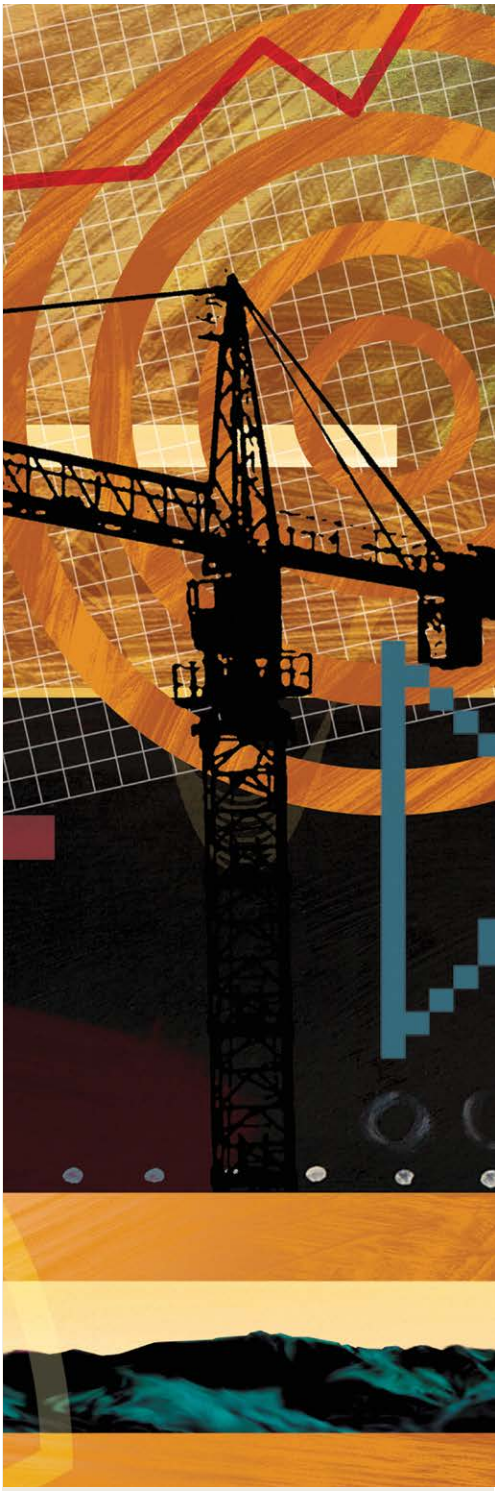
> People don't consistently do those simple things for 3 reasons: 1) while they are easy to, they are also easy not to do; 2) you don't see any results at first; 3) they may seem insignificant, as if they don't matter. But they do.

If you don't read the book for yourself, recommend it to someone close to you. It could be one of the best things that you have ever done.

Accordia Progress Update

Accordia continues to grow in 2018, with new clients coming to us from all walks of life. They are located in many parts of New Zealand, from Northland to Invercargill. Over the years, we have had many existing clients refer friends and family to us, which is a great reflection of their confidence in us and the work that we do for them.

We also continue to work closely with Accountancy and Legal firms around New Zealand, who also refer clients to us.



Tax Reporting

It's that time of the year again when we produce tax reports for all our clients.

Just a reminder that our portfolios are PIE's (Portfolio Investment Entities). That means that the tax paid is based on the PIR (Prescribed Investor Rate) set each year. It is important that appropriate advice is obtained from your accountant or tax adviser to ensure that your PIR is correct. If the PIR is higher than it needs to be, there is no refund of overpaid tax. If the PIR is lower than it should be, then there will be tax payable. A PIR update reminder will be sent with the tax reports.

We anticipate that the tax reports for the year ended 31st March 2018 will be available by mid-June. There is always a delay between the end of the tax year in New Zealand, and receiving all required tax information from overseas institutions with which we have investments. As soon as all the information is to hand we will get the reports to you as quickly as we can.

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