

Bitcoin

The greatest transfer of wealth in human history?

You've almost certainly heard about Bitcoin, but do you really have any idea *what it is*?

Is it a Ponzi scheme? A fraud? A currency for "criminals"?

Or is it the future of Money?

This report aims to answer that question.

Overwhelmingly, the "Millennial" generation seem to 'get' Bitcoin, whereas the older "Baby Boomer" generation does not.

This report aims to level the playing field.

This is an introduction to Bitcoin in plain English, to explain to those who don't "get it" why it will – in the opinion of this author – be one of the most important inventions in history, and create wealth and prosperity far beyond the imagination of most people.

After three years of ongoing research, this author believes that Bitcoin (*and potentially a few other Cryptocurrencies*) will see the greatest transfer of wealth in human history.

It will also help free humanity from the grip of Government control and give individuals financial sovereignty.

Nothing in this report is financial advice. The author is not a financial advisor. I am someone who has studied Bitcoin and Cryptocurrency for more than three years with a fascination

on what's to come. Please DO NOT make any financial decisions based on the information in this report. Thankyou.

Before understanding why Bitcoin is so revolutionary and why it will likely go down as one of the greatest inventions in human history, it's essential that you have an understanding of what money actually *is*.

So, let's start there...

What is Money?

Did you know that the word *Salary* is derived from the word "Sal", which is Latin for *Salt*?

The reason for this is that salt was at one time used as money.

Salt had – *at the time* – the required qualities of Sound Money that I'll present to you in this report.

Qualities that modern Government money does not have, but which Bitcoin *does* have.

To be Money, a good used must be:

1) Salable (*can also be spelt as saleable*)

This means that it's easy for the holder to 'sell' (use as payment) it to someone else at any time in return for goods and services.

To be *effective* as money, a good must be salable across time, space and scale.

- Salable across time:

This means that the good must hold its value over time. It must not corrode or degenerate, and the supply of the good must not increase drastically, thereby causing the value per unit to decrease. In other words, it must not be easy to inflate the supply.

- **Salable across space:**

This means that the good should be easy to transfer across space. Paying in cows – for example – would not fit this function as they are large, heavy and extremely difficult to transport.

- **Salable across scale:**

Sticking with the cow example, cows are not salable across scale unless you chop them up in to steaks (I apologise to the Vegetarians and Vegans reading this!). You cannot sell one cow for one apple, for example, because that is not a fair trade. One cow is worth much more than one apple. To be salable across *scale* a medium of exchange must be easily *divisible into smaller units* or *multiplied into larger units*, depending on the price of what you want to buy or sell.

2) A good store of value.

This means that it should hold its value over time. If you sell something at one point in time, you want the money you get in return to be worth the same amount in the future. It should also not corrode or rot, which results in a loss of value to the holder as discussed above.

3) A unit of account.

This means that everything should be priced in it. In an economy with no standard unit of account, goods would have to be priced in *each other* (1 potato = 2 carrots, 1 chair = 20 bricks, 1 window = 50,000 Blueberries). I think you get the point... By pricing every good in a standardised unit of account, you can sell what you have in to that currency and buy what you need with that currency.

What is the purpose of Money?

In ancient times, before money existed, people bartered goods.

If you grew carrots and I grew potatoes, we could exchange goods at an agreed exchange rate (say, 2 carrots for one potato).

The problem with this bartering system is that it doesn't work across scale or space, and often not across *time* either.

If you produce something expensive like a cow and I produce something relatively cheap like potatoes, the exchange rate may be something like 1500 potatoes for one cow.

What are you supposed to do with 1500 potatoes?

You would have to find other people to barter with, who may not want potatoes.

This is called a lack of "coincidence of wants". I must want what you have, and you must want what I have (to an equivalent agreed value) in order to agree a trade.

In some very small communities, bartering works to a degree *to this day*, but it's a very inefficient system.

If you add scale, it is completely impractical.

If you have 1000 potatoes but you need 1 bottle of medicine, some car tyres and a watch, you would have to find out what the sellers of those goods would accept for their goods, and then acquire *those* goods using your potatoes from other people, so that you can then exchange them for what you actually want.

This is called “indirect exchange”.

How many *individual transactions* would you need to conduct to achieve that end? And how would you find the tens or hundreds of intermediaries who want what you have, and have what you want?

When you add *space* to the equation, it becomes wholly impossible.

If you want to trade a cow in the US with someone for a car in Japan, how on earth will you each transport the items to each other using the bartering method?

You can't put them on a ship unless the ship owner happens to want something else both you and your trade partner in Japan have, which is quite unlikely.

For any kind of real trade to happen either locally or at scale across the planet, a medium of exchange must exist.

This is the primary function of Money.

Hard Money vs Easy Money

Hard Money (also known as Sound Money) is money which is very difficult (i.e. “hard”) to produce.

The opposite of this is Easy Money, which is money that can easily be produced at the whim of the producer.

The reason that Hard Money is so important is that **it holds its value** because its supply cannot be easily increased.

Let's use the example of the US Dollar, which is *not* hard money.

If the US Central Bank (called the Federal Reserve) decides to increase its supply by 10% in a year, the purchasing power of each Dollar in circulation drops by 10%

In reality, there is a ‘lag’ so the effect may not be felt instantly, but over longer time periods it becomes obvious.

In the UK, the average house price in the 1960's was £2530.

50 years later and the average house price is £232,944.

That's around a 100 times increase in 50 years.

Why? Because the Bank of England has continually printed money which is backed by nothing, and is extremely easy to produce.

Why is this a bad thing?

Because if you had put the cash equivalent of a house in the bank – or under your mattress – in 1960 and left it there until today, you would no longer be able to buy a house with it.

You may be able to rent one for a couple of months!

Effectively your ability to buy a house has been “stolen” from you by the printing of money.

Many people who do not have an understanding of economics will argue that a lack of supply vs demand has driven up the price of houses and that it has nothing to do with inflation.

Although supply and demand *has* affected house prices, it is not the *primary cause* of the massive increase in price.

To demonstrate that, a pint of beer was around 8 pence in 1960 whereas today it’s around £4.50.

That’s a 56 times increase.

Factoring in the technological advancements in producing and transporting the beer, as well as the competition between brands which has driven relative prices down, you can see how holding Government paper currency (whether in physical form or digital form in a bank account) decimates your wealth over time.

Bankers and Keynesian Economists tend to make inflation sound extremely complicated and difficult for a “normal” person to understand.

But in fact it is extremely simple. Inflation is just an increase of the money supply!

This effectively steals wealth from the population:

Savers see the buying power of the currency they are holding decimated over time.

Even if they are earning interest on the money saved, this interest would need to equal the real inflation rate (which many economists believe is much higher than the stated inflation rate in most countries) just to *maintain* its purchasing power.

In reality, the interest offered when keeping cash under your mattress is zero, and putting it in the bank is barely any better, with arguably more risk.

***Side note:** As I write, several countries are experimenting with negative interest rates. One of the effects of this would likely see banks **charging** depositors to keep their money with them – the idea being to “force” the consumer to spend their money to stimulate failing economies. We will watch these developments with interest.*

As money is printed to finance over spending by Governments, people get progressively poorer in their purchasing power unless their income increases at the same rate as inflation, which invariably it does not.

Sound (Hard) Money must be very hard to create.

Throughout history, many mediums of exchange have been used including seashells, beads, rare stones, cattle, metals, and government paper money.

With the exception of the last one, all of these goods have been hard to produce at the time of their inception of being used as money.

Being hard to produce / scarce was the only way that people would *accept* the goods as money.

However, as technology advanced over time, and foreigners with greater technologies or natural resources colonised other countries, they drastically increased the *supply* of these goods by importation, or using new technology to increase production.

This drove the money's value down drastically and effectively "stole" the locals wealth, rendering the money as no longer Hard.

This is **inflation** and it's what Governments and Central Banks do continuously by the printing of money.

It is thought that the main reasons Central Banks create new money are:

- To lend overspending Governments money at interest;
- To lend overspending Governments *more* money in order to pay back the interest on the money already borrowed;
- To purchase the real wealth (Hard Money) for themselves. This is why the vast majority of the World's Gold is owned by Central Banks, which are all or mostly privately owned entities.

You read that correctly, Central Banks are privately owned.

Many people assume the Federal Reserve is owned and/or controlled by the US Government.

Not so. They lend money to the US Government at interest, which can only be paid by more printing of money.

In the UK, it is thought by many that The Bank of England is a privately owned.

However, the UK Government claim that it is *not* and that they are in fact the owners of the printing press.

Historically the central bank was privately owned like all others, however they claim to have been “nationalised” in 1946.

The Bank of England claims to be “owned by the UK government”. However, what this *means* is open to interpretation.

It is not clear at all why a Government with ownership of their central bank would *choose* to charge itself interest on the currency created. Interest which could only be paid back by borrowing and printing more currency – and thus decreasing its value – ad infinitum.

Although far from an expert on the Bank of England, this author treats claims of “government ownership” sceptically.

Regardless of ownership, if a central bank is able to print money at will, that money is not sound money.

Ownership of the most World’s Central Banks is obfuscated and there are different theories about who owns and controls them.

Many believe that it's the same families who control *all* of the Central Banks around the World.

It is unclear to this author *why* Governments do not choose to control their own money supply, although there are many theories about it being the Worlds real "elite", ruling class who own the Central Banks.

Gold as Hard Money

It's not the goal of this report to delve into the complete history of money. That would require writing a very long book!

However, suffice to say that only one good has stood the test of time as Hard Money and that is... **Gold**.

Gold has been used as Sound Money for millennia.

It is extremely rare on Planet Earth and is – as far as we know – only created by a extremely rare events in the known Universe called a Supernova, which is when stars reach the end of their life, implode and the explode with a colossal amount of energy.

Gold was delivered to Earth via asteroids from different parts of the universe when the planet was being formed billions of years ago.

Because Gold is so rare (approximately 15 times rarer than Silver), it's "stock to flow ratio" -- explained below -- is like no other medium of exchange, *with the exception of Bitcoin after its next inflation halving, which I'll explain later.*

Stock to flow ratio sounds complicated, but it's not.

It measures how much of a good is produced each year vs how much already exists.

***Note:** Many economists (of whom I am not one!) measure stock to flow ratios differently by calculating how many years it would take to mine the existing supply. However I find it more useful and easily understandable to measure them in percentage terms.*

So, if 2000 tons of Gold is mined each year, and the total amount of Gold in existence is 200,000 tons, the “stock to flow ratio” of Gold is **1%** (2000 tons being 1% of 200,000 tons).

Those numbers are broadly accurate, by the way.

The stock to flow ratio of Gold is usually around 1.5% per year – in other words, the mined gold in existence increases by about 1.5% each year.

Even if demand goes up, the Gold mined does not increase significantly because it is extremely rare, and so extremely difficult to mine.

Silver

Silver was used alongside Gold as sound money for centuries.

China and India used a Silver Standard rather than Gold Standard until 1935 and 1898 respectively, eventually conceding defeat and switching to the Gold Standard.

While Silver has a respectable stock to flow ratio of around 22, it lost the battle to be the base currency to Gold because it is

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significantly more abundant, and so easier to mine (around 19 times).

If demand goes up, production can go up, which has not proven to be the case with Gold.

The other disadvantages – in terms of Hard Money – that Silver has to Gold is that it can perish more easily, and is an industrial metal which is used in the production of goods.

While these may seem like *advantages* in terms of it's value, it in fact *increases* the stock to flow ratio of Silver. This is because much of the above ground stock of Silver is used up by industry, effectively taking it “out of stock” and meaning that the new mined production is a larger percentage of the existing stockpile.

That may be a little difficult to get your head around, so let me put it this way:

If 2.5 tons of silver is mined each year and the total amount of silver ever mined is 25 tons then the stock to flow ratio is **10%** (i.e. the mined silver in existence increases by 10% each year).

However, if half of the Silver that's ever been mined has corroded or been used in industry with no real prospect of ever being reclaimed in monetary form, the stock to flow ratio increases to 20% (i.e. the mined Silver in existence – excluding the Silver that has been “used up” in industry – increases by 20% each year).

Confused?

If this is the first time you've heard of stock to flow ratio, that is totally normal.

The important thing is to understand the underlying concept:

The lower the stock to flow ratio, the more inherent value a good has if it is to be used as money, due to its difficulty to produce relative to the current supply.

The important factor is not necessarily the *actual* stock to flow ratio, but rather the *possible* stock to flow ratio.

If there were little demand for – *say* – Copper, then the stock to flow ratio could be extremely low because no one would bother to mine it.

However, if demand then increased, production could easily increase because Copper is relatively easy to mine due to its abundance. Increasing production would then make the stock to flow ratio much higher and so destroy its hardness as money.

Hopefully now you understand the concept of stock to flow and I'll tease you that in 2022 the stock to flow ratio of Bitcoin (*which gets lower over time until it reaches zero*) will become lower than Gold.

This will be explained in more detail further on in this paper.

Speaking of paper...

Paper Money *started* on the Gold Standard

Government Paper Money -- widely used today -- is a “promissory note”, made by a central bank.

Originally, paper money could be redeemed for *actual* money (usually Gold) on demand when presented to the cashier of the originating bank.

However, as with all centralised systems, it was soon corrupted.

Soon, Governments and Central Banks started printing notes than for Gold that they *didn't actually have*.

It was at this point that the money became Unsound (or “Easy”) money.

In 1944, delegates from 44 Allied countries met in Bretton Wood, New Hampshire, to agree on a new monetary system.

The delegates decided – for reasons that are not entirely clear – that their national paper currencies should no longer be backed by Gold, *but instead by the US Dollar*, which in turn was backed by Gold.

The arrangement came to be known as the “Bretton Woods Agreement”.

It established that the central banks would maintain fixed exchange rates between their currencies and the dollar. **In turn, the US agreed to redeem U.S. dollars for Gold on demand.**

However...

In 1971, the US Government abruptly took the Dollar off the Gold Standard, meaning that holders of US Dollars – including US Citizens – could no longer convert their paper currency to Gold!

On 15th August 1971, President Nixon announced the fraud. It was known as the “Nixon Shock”:

“I have directed Secretary Connally to suspend temporarily the convertibility of the dollar into gold or other reserve assets, except in amounts and conditions determined to be in the interest of monetary stability and in the best interests of the United States.”

Notice the use of the word of *temporarily*. Well, it’s almost 50 years later and the US Dollar is still not backed by Gold. Or any other hard money for that matter.

This was the start of the modern Fiat Currency bubble.

What is Fiat Currency?

“Fiat” is a Latin word which means “by decree”.

A fiat currency is simply one that is mandated by a Government as “legal” tender.

The reason that paper currency started out as being backed by Gold (or in some cases Silver until the 20th century) was that it *had* to be in order for the population to *accept* it as money.

It appears from studying monetary history that the people of the past were much more educated about the difference

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between Hard Money and Easy Money than today's population, who have for the most part known nothing other than unsound paper money.

Because of this, a fiat currency introduced by a Government that was not backed by hard money would be extremely unlikely to have been adopted, because the population would know that it was inherently worthless, and so not wish to store their wealth in it, even temporarily.

For this reason, fiat currencies throughout history were created first by being backed – usually by Gold – and *then* became unbacked, often at a time of War when Governments wished to create money out of thin air to pay for their war, once the currency was already widely used.

This was often done by “coin clipping” where a Government would progressively “clip” gold coins to reduce the gold content, reducing their value and inflating the supply.

If anyone other than Governments or Central Banks had done this, it would have of course been considered fraud.

It effectively stole the wealth from the population and funnelled it to the Government as described above.

Many major nations of the World (including the UK and other major European countries) went off the Gold standard in 1914 so that Governments could inflate their currencies to finance their war efforts. They have so far not returned.

It is thought that it is essentially “impossible” to return to the Gold standard, because the fiat currencies of the World have been so inflated since going off it that a return would make it obvious to the population that the paper currency is essentially worthless.

So, is Fiat here to stay?

There is an unequivocal answer to that question, which is... No.

ALL Fiat Currencies Fail ...Sooner or Later

Throughout history, there have been thousands of fiat currencies and it appears that they have a 100% failure rate -- excluding the most modern versions that have not yet, but will, fail.

In simple terms this is because as the currency inflates more and more over time, usually at an ever increasing rate (called Hyperinflation), people who hold the currency *realise* that their wealth is being stolen, and so stop using it as a means of exchange. As people refuse to accept it, it's inherent lack of value becomes obvious to everyone, and the currency collapses.

The French philosopher Voltaire said in the 18th century that...

*“Paper money eventually
returns to its intrinsic
value: Zero.”*

As I write this, the Venezuelan population is experiencing hyperinflation of its Peso.

People are buying *anything* that they can get their hands on because they know that tomorrow, it will cost significantly more.

A few other recent examples of fiat currencies which have hyperinflated are:

Zimbabwe - 2004

Hyperinflation of the Zimbabwe Dollar started in the early 2000's.

In 1980, one Zimbabwe Dollar was worth around US \$1.25. By 2009, a *hundred trillion dollar* Zimbabwe paper money note was not enough to buy a loaf of bread...

Ironically, some entrepreneurs collected the worthless notes and started selling them on websites such as ebay as novelty items to people in other countries.

I was actually given a 1 Billion Dollar note by a friend as a joke a few years ago. He said "*Now you're a Billionaire!*".

With great irony, the Zimbabwe Dollar was given some value by demonstrating to the World how worthless it was.

Ukraine - 1993

Ukraine experienced hyperinflation in the 1990s because of massive printing of money to finance government spending. In response to this hyperinflation the Ukraine central bank replaced the national currency – *called Karbovanets* – in 1996 with a new fiat currency called the Hryvnia and promised to keep it stable in relation to the US dollar.

Predictably, this didn't happen.

In 1996 when the new currency was launched, it took around 1.9 Hryvnia to buy 1 US Dollar.

At the time of writing it takes around 24 Hryvnia to buy 1 US Dollar – which remember is *itself* being inflated.

Germany - 1929

To finance the costs of the First World War, Germany replaced their currency – the *Goldmark* – off the Gold standard, naming the new currency the *Papiermark*.

They figured that they would win the war, and so would be able to annex the resource rich territories they would supposedly defeat.

This would allow them to levy large reparations on the defeated countries in order to repay the debt they had taken on to finance the war, and presumably return to the Gold standard.

Of course that didn't happen.

In order to pay “war reparations” levied against them by the Treaty of Versailles, the German Government hyperinflated the German Papiermark so much in 1929 that people began to use the currency as *wallpaper* and *fuel for fires* to keep them warm.

This author counts more than 150 fiat currencies that failed due to hyperinflation ***in the 20th century alone***.

Their average lifespan was 24.6 years.

Even without the debt based system system we live with today – briefly explained below – all fiat currencies fail because Governments have been consistently incapable of financial restraint when there is Easy Money available.

Wouldn't you be?

The Debt Based Fiat System

When you factor in the modern debt based money system we have today, the demise of a fiat currency is *guaranteed*.

Due to the modern debt based economy, the lifespan of a fiat currency *should* be even shorter, although the central banks ability to “drag out” the inevitable by manipulation of interest rates and other means appears to have increased.

In a debt based economy, the Government can spend money that it doesn't have.

The Government goes to the central bank and asks them to loan them the money they “need” to cover their costs and commitments.

The central bank then creates the money (actually currency) out of thin air and *loans* it to the Government at interest.

In return, the Government gives the central bank a “Government Bond” which is basically an IOU, which promises to pay the central bank at a fixed time in the future, plus interest.

Because the “money” is printed out of thin air and not backed by anything real, the only way the Government can ever pay the

central bank back is by borrowing *more* “money” to pay off it’s debts.

Even if Governments cut spending to less than their tax revenue, it is mathematically impossible to ever pay off the debt without printing ever more “money”, and it continues to grow.

Bitcoin as has been proposed by those who either don’t understand it – or perhaps have a vested interest to keep it a secret – as a Ponzi scheme.

It is in fact *fiat currency* that is a Ponzi scheme.

And the debt based monetary system we have today is the biggest Ponzi scheme in history.

The US Dollar – which is currently the World’s reserve currency – has all the characteristics of all previously failed fiat currencies.

Since its inception in 1913, it’s lost more than 92% of its value.

The US has recently been increasing the supply of dollars by around 13% every year to finance wars, over spending and the repayment of debt to the Federal Reserve (again, I remind you, privately owned).

This is the first time in history that we have had a *reserve* Fiat currency so no one knows what will happen for sure.

But it is extremely unlikely to be good.

In the UK, the Central Bank sold off *half* of its entire Gold reserves when Gold was at the bottom of a “bear market” and worth just \$282.40 per ounce.

Today it is worth more than \$1500 per ounce.

The UK government's action of selling Gold – a Hard money – to “invest” in foreign fiat currencies such as Euros seems to anyone with even a basic knowledge of macroeconomics extremely risky at best and downright idiocy at worst.

Centralisation of Gold Wealth

In recent years, emerging economic powerhouses such as Russia and China have been aggressively buying Gold as they seek to take themselves off the Dollar standard.

“Emerging economies” have been the most aggressive in their acquisition of Gold as they seek to be financial powers when the inevitable Dollar collapse happens.

The US Federal Reserve is still officially the largest holder of Gold in the World, although many believe that the figures are essentially made up.

It’s beyond the scope of this report to delve in to this (it would be a book in itself) but suffice to say that it’s believed by many that if everyone who had a claim on an ounce of Gold in the world tried to take physical delivery of it, there would not be enough Gold in existence. By a long shot.

The *suggestion* from these Gold experts is another massive fraud, where Gold held in vaults has multiple owners for each

ounce due to being sold over and over again. I encourage you to do your own research on this if it interests you.

Regardless, the vast majority of the Gold that *does* exist is in the hands of central banks.

In other words “the elite”.

Privately owned central banks have been acquiring Gold as well as other assets of real value such as company stocks in return for worthless paper money for a considerable amount of time now.

Wealth has flowed from the people to the miniscule minority at the top of the tree.

Unless “the elite” suddenly have a change of heart and decide to redistribute the wealth, it will remain centralised with the few.

...or will it?

In steps Bitcoin...

On 31st October 2008 a mysterious coder – or group of coders – using the pseudonym Satoshi Nakamoto released a whitepaper entitled:

Bitcoin: A Peer-to-Peer Electronic Cash System

Nakamoto proposed a digital money which can not be controlled by any central entity, can not be censored, and can be used by anyone to send money to anyone else on the planet.

“What is needed is an electronic payment system based on cryptographic proof instead of trust, allowing any two willing parties to transact directly with each other without the need for a trusted third party” he said.

Nakamoto’s vision was to create a truly free money system that anyone could use, regardless of sanctions, Government regulation, or any other attempts to stop them from doing so.

To this day it is not known who Nakamoto is, although there are plenty of theories and fraudsters who have claimed to be the creator of Bitcoin.

Bitcoin is hard coded to limit the supply to 21 Million coins, although many of the already minted coins have been lost by careless users who lost their Bitcoin when it was worth practically nothing.

The price rise of Bitcoin has been *astronomic*. It has been by far the best performing asset in recorded history.

At first, the price of 1 Bitcoin was not established because the only way to acquire one was to *mine* it (explained below).

However, on 22 May 2010, Laszlo Hanyecz made the first real-world transaction by buying two pizzas in Jacksonville, Florida for 10,000 BTC, valuing 1 Bitcoin at \$0.008.

Within 5 days, the price grew 1000% from \$0.008 to \$0.08 for 1 Bitcoin.

Since then, the price has risen to around \$8600 at the time of writing, peaking at around \$20,000 in 2017.

So is Bitcoin just a bubble, like the “Tulip mania” of the 1700’s or the “dot com” bubble of the early 90’s?

No.

Lets compare these 2 examples of financial bubbles to Bitcoin...

How much would you pay for a bouquet of tulips?

A dollar? Ten dollars? A million dollars? What about a share in a website that sells pet supplies -- the now infamous Pets.com?

At different points history, tulips and shares in Pets.com – as well as many other famous examples – have all sold for much more than they were intrinsically worth.

In both instances, the price rose and rose, and rose... and then abruptly plummeted.

This is an economic bubble.

The 18th century in Holland there was a flower in particularly high demand: The Tulip.

The Tulip was brought to Europe by traders who imported the Tulips by boat from the East.

Because of it’s *apparent* scarcity, it was considered extremely rare, and therefor valuable.

At the time, it was difficult to grow Tulips in Holland and it could take *years* for a single Tulip to grow.

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During the 1630s, an outbreak of “tulip breaking virus” made some flowers even more beautiful in the eyes of many by lining petals with multiple colours, and creating the illusion of “flame” like streaks in the petals.

A tulip like this was much more scarce than a ‘normal’ tulip and as a result, prices for those flowers started to rise...

As the price rose, *interest* in Tulips increased and so did people’s awareness of Tulips ever increasing “value”.

Before long, people became *obsessed* with Tulips, seeing them as both a status symbol and as a route to wealth.

A “mania” occurs when there is a rapid increase in price, combined with a willingness to pay large sums of money for something valued much lower in intrinsic value.

Another example of this is the “dot com” mania of the 1990s.

Stocks in new, “exciting” websites became like the Tulips of the 17th century -- everybody wanted in because the price would *inevitably* rise...

The more people who wanted the stocks, the higher the price would go.

Back in Holland, at the peak of the bubble *a single tulip bulb* sold for more than 10 times the annual salary of a skilled craftsman!

Any rationally minded person could see that this was a bubble, but people optimistically believed the price would continue to rise...

In the dot com stock market bubble of the 1990s, the stock prices began to rise due to excitement from Investors.

The price rise persuaded Investors to buy more of the stock, raising the prices even further due to an increased demand.

None of the decision to buy was based on the fundamental or intrinsic value of the stock, but rather *the belief that it would increase in value*.

This resulted in a feedback loop where investors got caught up in the hype and didn't do their research on what they were buying in to, creating a bubble.

Eventually all bubbles burst due to the collective realization that the price of the stock ...or Tulip bulbs – or *whatever* asset far exceeds its intrinsic value.

That's what happened with both manias.

Investors started to panic sell and prices were pushed down to all time lows.

Does this sound like Bitcoin?

It does not.

A financial bubble sees rapid, exponential, price increase (which Bitcoin *has* seen many times), followed by **a complete collapse of the price** to – or below – its true intrinsic value.

This absolutely does not describe Bitcoin.

The price of Bitcoin has been highly volatile since it's invention, with massive price increases and sharp "corrections" but it has never crashed.

There have been hundreds of occasions when Bitcoin has been declared "dead" after a sharp correction, but it always recovers, and to higher prices compared to fiat currencies such as the US Dollar or British Pound.

What is Bitcoin?

Bitcoin is the Worlds first successful decentralized cryptocurrency.

It is often called "digital cash" or "digital Gold".

It can be transferred person-to-person ("peer to peer"), which means that there is no Government or bank involved, and no "permission" is needed from any third party in order for one person to send money to another.

Bitcoin is created by "mining" which is done by the most powerful computing network on the planet.

Anyone can be a miner – all you need is the right type of computer equipment, an electricity supply, and the Bitcoin software. Then you can participate in the creation of new Bitcoins.

The role of miners is to make the Bitcoin network extremely secure and process transactions. The mining computers are required to solve extremely complicated mathematical

problems (and so use electrical power) in order to create new Bitcoin.

The mining computers are now very specialised pieces of equipment called ASICs (Application Specific Integrated Circuits), and the total processing power -- called “hash rate” -- is that of several *Trillion* (yes, with a “T”) personal computers.

In fact, *all* of the “super computers” in existence at the time of writing could only produce significantly less than 0.01% of the Bitcoin hash rate.

That is how powerful – and so *secure* the Bitcoin network is.

It is this processing power that makes Bitcoin the most secure computing network in the World and virtually impossible to “hack”.

Solving the “Double Spend Problem”

Crypto currencies have been around since the 1980s but there was a major problem, which meant that they never worked securely.

Bitcoin: The Greatest Transfer of Wealth in Human History?

It was called the “double spend problem”.

If somebody spent some of those experimental currencies, it was impossible to tell if that money had *already* been spent, meaning that someone could potentially spend it more than once, defrauding one of the recipients.

That was the biggest problem Bitcoin solved and why it has gained so much popularity around the World, with Millions of users worldwide.

It does this by using a “distributed ledger” which is stored on thousands of computers, called a *Blockchain*.

The Bitcoin Blockchain

The blockchain is an open, publicly visible, ledger that stores a history of Bitcoin transactions.

The blockchain is stored on every single “node” that operates on the network around the World. At the time of writing there are around 11,000 nodes on the Bitcoin network, and growing.

The more nodes that exist on the network, the more decentralized it is, and so the harder it is to attack.

Bitcoin transactions are *pseudonymous*, meaning that anyone can see a complete history of all Bitcoin transactions – which Bitcoin address sent what amount to which other Bitcoin address – but Bitcoin addresses are not tied to an individual’s identity.

If you own any Bitcoin, what you actually own is called a private key.

A private key is *half* of a “digital signature” that proves you own that Bitcoin – the other half being your *public* key.

There is nothing to stop anyone having as many private and public key pairs as they wish.

All public keys are stored in the blockchain but *private keys* must be guarded in the same way that you would guard a large amount of cash, precious metals, or anything else that is portable and stores great value.

When you want to send someone some Bitcoin you broadcast the transaction to the network using a Bitcoin wallet.

The transaction request is received by all the computers (miners) around the World.

The miners batch the most recent transaction requests into a “block” and compete to “solve” the block.

The miners computers compete to solve an incredibly complex cryptographic puzzle to verify the block.

The more computing power a miner has, the more likely they are to solve it first, which earns them the miner a “block reward”.

After solving a block, the miner adds it on to the end of the blockchain and then broadcasts the new updated blockchain to the network of nodes, who verify the work and start using the updated blockchain.

The miner who solves each block is rewarded with a “block reward”, meaning some newly minted Bitcoin. As of writing the block reward is 12.5 Bitcoin and its due to get cut in half half to 6.25 BTC in May 2020.

Miners also receive a small transaction fee from the person who sent the Bitcoin.

The Bitcoin block reward gets cut in half every 210,000 blocks (approximately every 4 years, depending on how quickly the blocks are mined).

This is very important for the stock to flow ratio of Bitcoin!

Eventually in around 2140, the Bitcoin inflation will go to 0 and no new Bitcoin will ever be minted.

When this happens, miners will make money from transaction fees alone. It's anticipated by most that Bitcoin will be so valuable at that point, the cost of electricity so low, and the computers mining blocks so efficient that the transaction fees alone will be very much worth the miners efforts.

Minting new Bitcoins isn't the *point* of mining but rather the *reward* for the service miners perform for securing the network while the value of Bitcoin is relatively low.

Because the cryptographic "hashes" are so complex, every single new block makes the *previous* blocks much more difficult to hack, which in turn means that the entire blockchain gets exponentially more and more secure over time.

Hacking the Bitcoin blockchain would require an *immense* amount of computing power in order to change *just one* transaction. An attacker would have to change the information in *that* block, as well as in *every other block that comes after it* in order for it to be "valid" as the "real" Blockchain.

Even if this were somehow possible, the true Bitcoin Blockchain would certainly be "forked" by Bitcoin users and the new "fake" chain would be abandoned by the honest nodes, meaning the huge expense to attack the network would be a complete waste.

Miners would have no incentive to continue mining a “fake” chain because no one would want to use it and so the value of the coins would be worthless.

Regardless, with *countless* miners working on the blockchain simultaneously, an attack would require so much computing power as to render it essentially impossible.

An attacker would need more than half of the computing power being committed to the Bitcoin network at any point in time in order to change a single block. This is called a “51% attack” and Bitcoin has never suffered one.

Other, much smaller, “proof of work” blockchains are quite frequently attacked because they have such a tiny fraction of the hash rate that the Bitcoin network has.

This was arguably Bitcoin's most valuable “first mover advantage”. Its network grew so quickly while under the radar of Governments, banks, and other would be attackers.

If Governments had *known* about Bitcoin in the early days, it would have been relatively easy to hack the network and kill Bitcoin.

Thankfully for us they didn't. And now they *can't*.

The Bitcoin Inflation Model

The inflation model of Bitcoin is known by all users, and can not be changed.

It's rate of inflation reduces by 50% roughly every 4 years until it eventually reaches zero in around 2140 when every last one of the 21 Million Bitcoin that will ever exist have been mined.

At the inception of Bitcoin (when it was very easy to mine due to a low number of participants), the “block reward” – meaning how many Bitcoins were mined roughly every 10 minutes – was 50 BTC.

In 2013, the block reward halved to 25 BTC.

In 2016 it halved again to 12.5 BTC, which is where it is as I write.

This makes the annual rate of inflation around 3.68%

The next inflation halving to 6.25 BTC is due around late April / early May 2020 once a predetermined number of “blocks” have occurred, which will give Bitcoin an inflation rate of around 1.8%, getting very close to that of Gold and much better than that of Silver.

Because Bitcoin is continually being mined during the (approximately) 4 year periods between inflation halving, the rate of inflation gets less and less *progressively* with every single block mined.

In 2022, the stock to flow ratio of Bitcoin will become lower than Gold, making it the most scarce asset in the World.

Bitcoin: The Greatest Transfer of Wealth in Human History?

Psychological Challenges of Owning Bitcoin

The price of Bitcoin is extremely volatile. It's generally expected that this volatility will reduce progressively over time, as more and more people join the network.

However if you are buying Bitcoin as an investment, it is essential that you expect severe volatility in future.

This is partly due to price manipulation from large Bitcoin holders (referred to as "whales" by Bitcoin users), partly to normal market forces, and partly as a reaction to world events.

The world recently was gripped by fear of a war between the US and Iran after tensions escalated and Iran reacted to provocation of the US by bombing one of their military bases in Iraq.

At times of extreme uncertainty like this, money tends to flow in to "safe haven assets" such as Gold and Silver.

Interestingly, there was a significant jump in the Bitcoin price compared to USD, which correlated very closely with what happened to the Gold and Silver prices, suggesting that people may now consider Bitcoin a safe haven asset.

However, there undoubtably will be extreme volatility in future.

That is great news for investors with a cool head, but terrible for those who cannot handle big price swings to the downside.

In order to invest in Bitcoin, it's essential to *understand* it's intrinsic value and form your own opinion on where it's value in relation to other assets will go.

To be a successful Bitcoin investor, it's my opinion that you have to disassociate it's price in relation to any fiat currency.

Put another way, if you own 1 Bitcoin, you own 1 Bitcoin.

Rival Cryptocurrencies

There are thousands of imitations of Bitcoin.

Most claim to be "better" in some meaningful way or another.

Some claim to be complimentary to Bitcoin, and *a few* almost certainly are.

As someone who is new to the Cryptocurrency space, it's easy to get "sucked in" to thinking you can become a multi-millionaire over night by "investing" in the next latest and greatest project.

It's very important to remember that most of these projects will fail.

That does not mean that I am "bearish" on all "Altcoins" as they are known by Bitcoiners.

At the time of writing I think that the Decentralised Finance (DeFi) infrastructure being built on the *Ethereum* network has massive potential. I also think that *Monero* has the potential to be the "perfect money" that the development team are trying to make it.

Most early adopters in the space have their own favourite projects.

Some of them will succeed, *potentially* with higher relative gains than even Bitcoin.

However, I expect that the vast majority will not.

Bitcoin is by far the most secure cryptocurrency at the time of writing with the greatest number of developers working on it, the greatest computational power behind it, and the biggest institutional inflows of capital.

Rival “Altcoin” projects or their supporters may point to what they see as the *limitations* of Bitcoin such as scaling and the visibility of the public ledger.

However, before blindly listening to these arguments, I would strongly suggest weighing both sides of each argument from **knowledgeable** and **credible** sources.

Remember that there are a lot of scammers and salesmen in the Cryptocurrency world who are actually extremely knowledgeable, but are acting out of self interest to convince newcomers that their “coin” is better than Bitcoin.

To date, no one has achieved that.

This can only be done by in-depth research so that you can come to a decision for yourself, rather than being guided by people who could be acting out of self interest.

How to store your Bitcoin

This is not an exhaustive list -- *you can actually store your Bitcoin *in your brain* (by memorising your seed phrase) -- believe it or not!* -- but the most common ways you can store your Bitcoin are:

1) On an Exchange

I strongly advise you against doing this. If the exchange gets hacked – which has happened many times before to large exchanges – your Bitcoin may be stolen. There will likely be no recourse.

If you are *trading* Bitcoin then of course you need some on an exchange.

However, I would urge you to make sure that 1) you only trade with a small percentage of your Bitcoin wealth and; 2) once you have made the trades, you withdraw your Bitcoin to a more secure method of storage (below).

2) In an online “Hot” Wallet

Hot wallets are connected to the Internet.

They are far less secure than “cold” wallets (below) and so I advise you not to use them unless you have a special reason to do so.

3) In a Desktop Wallet

This is a wallet that sits on your computer or phone, but is not connected to the Internet and stores your Bitcoin directly on your machine.

Desktop wallets are considered to have a high level of security compared to exchange / hot wallets.

I have used [Exodus](#) and have always had a good experience of the wallet.

4) On a Hardware Wallet

Hardware wallets are physical USB type sticks which have special encryption to keep your Bitcoin safe.

If you are buying a lot of Bitcoin, I would highly recommend having several hardware wallets and keeping them in different geographical locations in case of theft, fire, etc.

Just as you wouldn't keep a large amount of cash lying around in one location, so you shouldn't with Bitcoin.

My personal choice of hardware wallet (and the industry standard at the time of writing) is [Ledger](#).

It doesn't really matter which model you go for – they are all equally as secure.

If buying a Ledger, I would strongly suggest ordering direct from them rather than buying one on eBay for example. The reason is that there have been stories where hackers have tampered with hardware wallets, sold them online as “new” and then stolen the buyers Bitcoin.

If you buy direct from Ledger you will be safe.

Once you receive your Ledger, just follow the instructions on how to get your Bitcoin on to it.

How to buy Bitcoin

You can buy Bitcoin in several ways:

1-
On an exchange. I personally use [Kraken](#), which is one of the older and more trusted centralised exchanges.

I have always found Kraken to be a good exchange to deal with and easy to use.

As with all centralised exchanges, they will ask you to go through a “KYC” (know your customer) process to prove your identity in order to comply with the law.

2-
If you don't want to go through KYC, the future will be Decentralised Exchanges (DEXs). However at the time of writing, most do not have fiat to Crypto gateways. In other words, you already need to own Cryptocurrency to use them.

Remember, this is an extremely new market and we in the “Early Adopters” stage at the time of writing.

While there are a few exceptions, for a new Bitcoin user it would likely be a little overwhelming to actually work out how to use them anyway.

If you would rather exchange by cash or bank transfer for Bitcoin, there are a couple of options:

3-

You could use [Local Bitcoins](#). I have not personally used the service myself but it's generally considered a reputable "person to person" exchange platform at the time of writing.

4-

If you are a BTST Member and want to buy Bitcoin but don't want the hassle of joining and learning an exchange or trusting people you don't know, we could provide an "over the counter" (OTC) service for you. Just drop us an email and we'd be happy to help you get started.

I hope this Member report has inspired you to at very least learn about Bitcoin and how it will change the World.

It could just be the greatest invention in history so far.

Only time will prove me right or wrong on that one, but what we know is that Bitcoin is *already* shaking the legacy financial system to its core.

It's taken a LOT of work and energy to write this report but I would feel extremely bad if when the next financial meltdown hits (which I don't think will be long) I hadn't told you about what I've learned.

All the best,

Adam

P.S. If you want help getting set up, you can drop us an email at:
bitcoin@btst.co.uk