A book by BBCD Satoshi

uture 45

A book about Bitcoin

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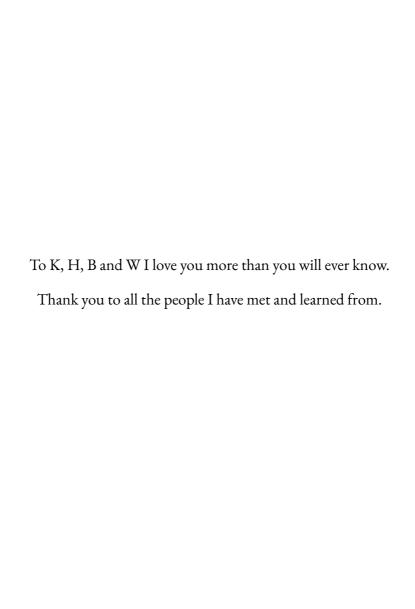
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Disclaimer: Please note, nothing here is investment advice. This is all research and commentary for you the reader to make an informed decision about Bitcoin and investing. Take everything here with a pinch of salt, because you can never be certain about anything. Do your own research and due diligence.

Errors and omissions: If there are any errors or omissions please send details of these to the following email address. We shall do our best to rectify this in the next addition and or show an errata listing. Kindly send these to bbcdsatoshi@bbcdsatoshi.com

All information correct as of 1st December 2022.



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PREFACE

It's November 2022 (Q4). I'm sitting here writing this with my mind's eye on the Present. The US Federal Reserve interest rate meeting decision is today. An eye on the Past, considering implications of the COVID-19 Pandemic lockdowns. And the Future, will Russia use a nuclear device, will China invade Taiwan, will there be a global recession, what will the World look like in 2050, the list goes on.

It's been a fairly tumultuous time in the World. Geopolitically. Economically. Financially. Socially. Elon Musk has just bought Twitter and taken the social media giant private. How will this impact the USA for the 2024 Presidential Elections, which inevitably have repercussions globally. Is Elon Musk setting the stage to become President in 2028 or 2032? How will Elon at the helm of Twitter impact positively or negatively for the world? Will Russia detonate a nuclear device in Ukraine or the Black Sea? Will UK interest rates reach 6% at the end of 2023? Ripples of the FTX collapse are just being felt, how will this compare to the Mt. Gox issues. Personally I felt that something didn't seem right with FTX at the beginning of this year, but just couldn't put my finger on it. It was my gut talking. Judging by the last few years, the only things that may come as a shock to the everyday person would be

if an asteroid is heading for Earth, a huge volcanic eruption creates a world changing tsunami or alien life is discovered on Mars.

It's always interesting and thought-provoking writing things down such as what you just read, because through the lens of time it may appear naive and clear that something was going to happen. Why could this and that not be foreseen? Why could you not have predicted in 2025 that such and such was going to happen, it was obvious! Hindsight is a wonderful thing. Not sure who said that but it's true.

As the current state of the world plays out, in the near future we can look back and see either where we've come from clearly, in a linear path or the opposite a non-linear path and wonder how we arrived at the point we are at.

Steve Jobs (co-founder, chairman, and CEO of Apple) once said:

"You can't connect the dots looking forward; you can only connect them looking backwards. So you have to trust that the dots will somehow connect in your future. You have to trust in something—your gut, destiny, life, karma, whatever. This approach has never let me down, and it has made all the difference in my life."

How will the dots look when we connect them in 2032, 2042?

With everything going on in the World, the one thing I'm glad we have is Bitcoin.

Chapter 1

OPENING

"I've been working on a new electronic cash system that's fully peer-to-peer, with no trusted third party". **Satoshi Nakamoto**



Clean and simple graphic separating Bitcoin from "Crypto"

Source: https://twitter.com/AlessandroOtt17/status/15922332675 62008578

Welcome and thank you for taking your time to read this book.

I'd like to first emphasise that Bitcoin is unique and in my opinion can not be lumped with all other cryptocurrencies or "Crypto".

The intention of writing this book is to have content which summarises already existing information and themes such as arguments, charts, ideas, memes and quotes. The content can act as a signpost to help you continue your own research into the topic of Bitcoin. I've tried to balance the book with the positive and negative aspects of Bitcoin as an investment.

Throughout the book you'll see quotes taken from Satoshi Nakamoto which provide an insight into Satoshi's thinking. All information is correct as of 1st December 2022, however in the fast evolving landscape of Bitcoin, please double check any information.

If you scan the QR code below (and on the front cover) you'll be taken to the website where you can find resources such as links to information, products and services. I've listed several books which I highly suggest reading as they are packed with useful information, knowledge and background details.

Scope

The scope of the book is purely looking at Bitcoin from a long-term investment perspective.

This narrow scope is standing on the shoulders of some fairly remarkable and interesting topics which all come under the umbrella of Bitcoin. It's not within the scope of this book to look at philosophy, programming, mining, politics, technology, legal, economic, and maximalism. I'm not an expert by any stretch of the imagination, I'm just a normal person intrigued by Bitcoin and see the benefits long-term that the technology and innovation bring. This is due to the financial, economic and political uncertainty in an ever-changing world.

Please use this book to continue your journey into discovering Bitcoin and deciding whether or not it is an investment for you.

Strategic Investment not Trading

This book is intended for anyone considering buying Bitcoin as a strategic investment, to hold on to for at least 10 years. To focus further on the demographic it would be someone looking to purchase between 0.01 and 10 Bitcoins (approximately \$50 USD and \$500,000 as of today but this fluctuates) who is a retail investor and managing their finances themselves from home. You may be comfortable using computers and technology, or you may need to ask for assistance from a family member. But, bear in mind that with Bitcoin security is very important. If someone has access to your 'private key' or 'seed phrase/recovery phrase', they can take all of your Bitcoin. You have no recourse. It is all up to you. "Not your keys, not your coins" is often cited to remind people of this fact. It's not a joke, it's serious stuff.

This is not financial advice

Please note, nothing here is investment advice. This is all research and commentary for you the reader to make an informed decision about Bitcoin and investing. Take everything here with a pinch

of salt, because you can never be certain about anything. Do your own research (DYOR) and due diligence (DD).

Caution, Buyer Beware, Caveat Emptor:

A few things to note. Firstly, Bitcoin has a ticker code which can either be **BTC** or **XBT**. Be aware that if you buy Bitcoin without these ticker codes, it is likely you are <u>not</u> buying the original Bitcoin. That is because anyone can technically create a fork (a different version) of Bitcoin as it is Open-source software. We are only discussing BTC and or XBT. Secondly, do bear in mind that nothing here should be taken as actual investment advice. Do your own homework before deciding to buy or invest. There is only one person that is responsible for your actions either positive or negative and that is you. Buyer beware, Caveat Emptor.

Right or wrong?

Maybe you know a lot about the subject of Bitcoin, a little bit or nothing at all. This book is meant to be a guide, as you may be sitting on the fence procrastinating or not considering buying at all. As the writer of this book, I might be right, or I might be wrong. In 10 years this book may be seen as very cringe-worthy or spot on. However, shame and embarrassment aside, I've decided to write this book as I do believe in Bitcoin and would like to share this with others. Now is quite possibly the best or worst time to get into Bitcoin, depending on your perspective.

Satoshi Nakamoto

At the start of each chapter in this book, I'll add a quote that has been attributed to Satoshi Nakamoto. The quotes are succinct and thought provoking.

Cryptocurrency

I believe Bitcoin (BTC / XBT) is the first true cryptocurrency. A cryptographically secured, proof of work, decentralised, Open-source means of payment, value transfer and store of wealth created by Satoshi Nakamoto.

Bitcoin is unique and is not the same as all the other cryptocurrencies available, sometimes called Alt Coins or Shit Coins. There are over 20,000 Alt Coins listed on various data aggregate sites. I believe Bitcoin should be referred to as either Bitcoin or a digital asset, rather than "Crypto". Crypto in my opinion is every other available cryptocurrency, other than Bitcoin. However, common parlance of "Crypto" (which sounds cringe and scammy) Bitcoin would come under this umbrella. The graphical image at the beginning of this chapter shows this clearly. Just to reiterate, when thinking of "Crypto" it's best not to lump Bitcoin in with all the other Crypto because you can't compare apples with oranges. A better analogy would be that Bitcoin is a hard coconut, and Cryptos are fragile eggs.

In this book I won't give any step-by-step instructions for Bitcoin transactions, using exchanges, software wallets or hardware wallets because there are far better resources elsewhere for that on the internet. I'll list some further reading and recommended websites at the end of the book for you to continue your research.

Acorn to oak tree

An analogy I like to think of for Bitcoin is the cliche of leaving an acorn in the ground to grow into a mature tree. The process from acorn to full oak tree takes decades. Currently, Bitcoin is an oak sapling with a deep root structure blowing in the wind. The con-

ditions are neither favourable or unfavourable. The environment and situation are playing an important role in the development. Will it be uprooted in the perceived coming hurricane of a global recession or will external macro issues provide the right growing conditions to flourish?

To B or not to b

Throughout this book, I'll use Bitcoin with a capital B throughout this book, rather than interchanging between Bitcoin with a lowercase b. There are some subtle differences, but not consequential for the purpose of this book.

10 years ago

I wish I had known about Bitcoin 10 years ago in 2012. I didn't. If I did, there is a chance I'd be a very wealthy individual, but I'm not. However, there is also the chance I may have sold Bitcoin early on in 2017 and not had the strategic patience to follow through to now. Hindsight is wonderful, and that is another reason for writing this book, which is to fast forward 10 years to 2032 and see if those 10 years can be worthwhile investing years. Just like the scenes from the film "Back To The Future, Part 2" where characters can travel into the future and past, there is an Almanac with all the results of sporting events. The characters in the film can know the results of sporting games for purposes of gaining money and wealth (well worth checking on YouTube if you haven't seen it).

Supply and Demand

One way of looking at Bitcoin, and everything about it, is a pure dynamic study of Supply and Demand. Buyers and Sellers ebb and flow, and hardcore holders (HODLers) make up the rhythm of transactions on the Bitcoin network. Bitcoin is a near-perfect example of the Law of Supply and Demand. In my opinion, the only way this can be disrupted is by financial chicanery, in the guise of derivatives and other exotic instruments which could impact the fixed cap of Bitcoins with paper/fake Bitcoin. This scenario could depress the price of Bitcoin going forward.

Hindsight

As simple as it sounds the expression "Buy Bitcoin, you'll thank yourself in the future" sums up succinctly what I'm trying to explain here.

With the benefit of hindsight, imagine if you'd invested and bought 100 Bitcoins in 2012. This would have cost approximately \$10 USD (US Dollars) per Bitcoin or a \$1,000 USD total investment, for 100 Bitcoins. Today that investment would be worth several million USD. Or, in 2019 you'd bought 1 Bitcoin for approximately \$10,000 USD, that same Bitcoin would be worth approximately double that amount, as of today.

The year 2030

Place yourself in 2030, looking back to now, will you thank yourself you purchased Bitcoin? No one can predict the future, however using the past as an indicator there will be troubling times ahead (like there always have been). Imagine 20 years ago, who would have predicted COVID-19, the 2008 Financial Crash and even the development of Bitcoin? So, projecting forward there is likely to be economic, financial and political turbulence which is likely to manifest itself in the form of inflation (just like we are experiencing today circa 10% inflation official in the UK). As a hedge against

uncertainty and inflation, Bitcoin may be just the thing that you need.

Macro

The macroeconomic conditions and political climate have created a near-perfect storm for inflation. Mother Nature and natural evolution of systems may have created Bitcoin as a way of balancing the financial system. Bitcoin may be the valve in the financial pressure cooker. Bitcoin could be a natural law that is required to rebalance the financial and monetary system in a digital world. Often, the exact opposite happens to what people are expecting with Bitcoin. There is Game Theory involved with Bitcoin. Big players are starting to enter the Bitcoin scene, which includes Fidelity and BlackRock.

More for less

Now could be argued is a very opportune time to buy Bitcoin. As stated before though, now is quite possibly the worst time to get into Bitcoin, depending on your perspective.

The price of Bitcoin has dipped to just below \$16,000 USD, whereas 1 year ago the price was \$69,000 USD. One way of looking at those figures is to look at how many Bitcoins you could acquire. If 1 Bitcoin was \$69,000 you would have 1 Bitcoin. However, that same amount divided by \$16,000 would mean you would have 4.3125 Bitcoins. That is quite impressive if you are considering purchasing Bitcoin and holding onto them for about 10 years. The expression often used is "Buy the dip".

Security

Take security seriously. This means your own security and the security of your Bitcoin. I recommend looking into the following 5 x topics carefully, before delving into Bitcoin.

- 1) OPSEC (Operational Security)
- 2) Cold Storage versus Hot Storage
- 3) Hardware Wallets versus Software Wallets
- 4) Online Exchanges
- 5) History of hacks, physical attacks and security incidents

What is money?

One question I asked myself for many years was "What is Money"? I used to ask myself this regularly, however, I didn't have the answer. I just thought "it is what it is. Oh, it's money, it's backed by gold". Was I right or wrong?

What is Money? It's a deceptively simple question, which can yield a simple answer or a long complicated answer depending on who you ask and where you find the information. In some senses, the question is the reason why I am genuinely interested in Bitcoin.

Ask yourself now, 'What is money? Can you explain the concept of money to yourself? How does your explanation of money change when you explain it to a 5-year-old, 10-year-old, 18-year-old, your parents or your Grandparents?

When you learn more about Bitcoin you'll gain a better understanding of what money is (or isn't!) and the fascinating history

going all the way back to Rai stones. Well worth looking up and researching (Rai Stones, Yap islands in Micronesia).

When I first heard about Bitcoin I dismissed the idea, because I had no idea about the key aspects and facts of Bitcoin. I used to think a better name for it would be Bit Con. I guess who hasn't?! After I learned a few facts, I became more and more interested, to the point that I would read around the subject and go off on tangents, but always within the umbrella of the concept of money. The resources listed at the end of the book are those tangents.

Bitcoin has the characteristics of money, which are divisibility, durability, fungibility, portability, recognisability and scarcity. Bitcoin is based on the properties of mathematics rather than relying on physical properties such as gold or trust in central authorities that issue government-backed currencies called flat currencies. Essentially, Bitcoin is backed by mathematics. With the attributes listed, all that is required for a form of money to hold value are simply trust and adoption.

Before jumping in, I highly recommend you do your own due diligence, research and homework. To do this, make your way through the resources such as videos, podcasts and books listed at the end of the book. These include:

- a) Further reading
- b) Sources
- c) Recommended websites and products
- d) Recommended people to follow
- e) Recommended newsletters

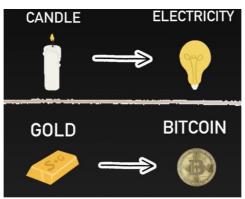
BUY BITCOIN, YOU'LL THANK YOURSELF IN THE FUTURE

So, we've set the foundations for looking at Bitcoin in this introduction. Let's now look at key facts about Bitcoin in the next chapter. All information correct as of **1st December 2022.**

Chapter 2

KEY FACTS

"Total circulation will be 21,000,000 coins. It'll be distributed to network nodes when they make blocks, with the amount cut in half every 4 years." **Satoshi Nakamoto**



As a candle is to an electric bulb, so is a bar of gold to a Bitcoin

Source: https://twitter.com/BitcoinMagazine/status/15892589128 71903235

First, there are many numbers, statistics and facts associated with Bitcoin. Second, these numbers are hard-baked into the underlying code and protocol that makes Bitcoin work. The total amount of Bitcoin can't be changed. There will only ever be the amounts listed.

A FEW SELECTED FACTS:

Just short of only **21 Million (21,000,000)** Bitcoins will ever be created (mined). This is the total supply capitalisation. No more Bitcoins can ever be created based on the underlying protocol.

19.2 million (19,200,000) Bitcoins have been mined already.

There are only **1.8 million (1,800,000)** Bitcoins left to be mined.

90% of all Bitcoins have been issued.

Approximately **4 million (4,000,000)** Bitcoins might be permanently lost. These lost coins are likely unrecoverable. This could be due to the private key or seed phrase being lost by error, hack, intention, mistake, or death of the owner.

Approximately every **10 minutes** newly mined Bitcoins enter the total supply.

Every 2 weeks or every **2,016 blocks** is called a difficulty adjustment period. Blocks are batches of transactions.

The **coinbase transaction** is the first transaction of every block and is what makes it worthwhile for a miner of Bitcoin to mine Bitcoin.

Every **4 years**, the Bitcoin supply that enters the overall supply (by being mined) is halved.

For the first 4 years, 50 coins entered the overall supply every 10 mins. Then 25 coins. Then 12.5 coins. Then 6.25 coins. The next having event due to take place in April/May 2024 reduces the supply to 3.125

1 Bitcoin is made up of **100,000,000 (100 Million)** units called **Satoshi's** (also known as Sats). As an example. that means 0.000 00001 Bitcoin = 1 Sat | 0.25 Bitcoin = 25,000,000 Sats

Bitcoin was the first realised solution to the **Byzantine Generals Problem** with respect to money. Many proposals and projects preceding Bitcoin had attempted to create money separate from the government, but all had failed in one way or another.

A Bitcoin address is created using a **public and private key**. Never, ever give your private key to someone. Only give your public key.

Seed Phrase/Recovery Phrase uses between 12 or 24 words Each seed/recovery phrase comes from a list of 2048 words. The idea came from Bitcoin Improvement Proposal (BIP) 39. Never, ever give your seed phrase/recovery phrase to someone or you may lose all your Bitcoin.

Satoshi Nakamoto is credited with programming and creating Bitcoin. Satoshi Nakamoto is also credited with publishing The Bitcoin Whitepaper. Satoshi Nakamoto's identity has not been revealed and is not known. There is speculation Satoshi Nakamoto could be one person or even a group. This is similar to the Baconian theory of Shakespeare authorship, that holds that Sir Francis Bacon wrote the plays which were publicly attributed to William Shakespeare.

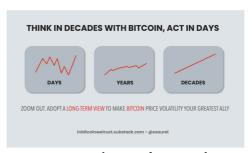
BUY BITCOIN, YOU'LL THANK YOURSELF IN THE FUTURE

In this chapter we've looked at a variety of key facts that make up the guiding principles for Bitcoin. These include specific numbers hard-baked into the underlying Bitcoin protocol. In essence, these hard facts focus on the truth that Bitcoin is truly scarce, with a fixed and determined supply schedule known for decades in advance. In the next two chapters we'll look at the arguments for and the arguments against buying and holding Bitcoin.

Chapter 3

FOR BUYING AND HOLDING BITCOIN

"The fact that new coins are produced means the money supply increases by a planned amount, but this does not necessarily result in inflation. If the supply of money increases at the same rate that the number of people using it increases, prices remain stable. If it does not increase as fast as demand, there will be deflation and early holders of money will see its value increase. Coins have to get initially distributed somehow, and a constant rate seems like the best formula." Satoshi Nakamoto



Zooming out shows a clear trend on a longer time horizon

Source: https://twitter.com/ssaurel/status/1588842266533441537

Lets now have a look at who has a positive opinion about Bitcoin.

There are many arguments and reasons for buying and holding Bitcoin as a strategic investment. A quick search on the internet will pull up a variety of names who believe in this and their reasons. For brevity, I've chosen a handful of people and organisations and will dive a bit deeper into their reasoning for buying and holding Bitcoin.

These people and organisations will be looked at in more detail; Michael Saylor, Elon Musk, Andreas Antonopoulos, Bill Miller, Fidelity, Blackrock and the Winklevoss Twins.

QUOTES FOR BITCOIN:

"Bitcoin is a bank in cyberspace, run by incorruptible software, offering a global, affordable, simple, & secure savings account to billions of people that don't have the option or desire to run their own hedge fund." - *Michael Saylor*

"I would like to see Bitcoin succeed." - Elon Musk

"Bitcoin represents a fundamental transformation of money. An invention that changes the oldest technology we have in civilization" - *Andreas M. Antonopoulos*

"Bitcoin is best thought of as digital gold" - Bill Miller

MICHAEL SAYLOR

Michael Saylor was previously CEO and is now the Chairman of MicroStrategy (MSTR). The company has bought and holds 122,478 Bitcoin. At current prices that is \$3 Billion USD.

Source: <u>https://www.coindesk.com/business/2021/12/09/most-influential-40-michael-saylor/</u>

Michael Saylor, the chairman and co-founder of software company turned Bitcoin acquisition vehicle MicroStrategy (MSTR), has predicted the value of Bitcoin will overtake gold within ten years - potentially giving Bitcoin a \$500,000 price and a market capitalization of \$10 trillion.

"The next logical stop for Bitcoin is to replace gold as a non-sovereign store of value asset," Saylor told Market Watch this week, adding gold is a \$10 trillion asset. "Bitcoin is digital gold, it's 100-times better than gold and if Bitcoin goes to the value of gold it goes to \$500,000 per Bitcoin."

S o u r c e : https://www.forbes.com/sites/billybambrough/2022/09/24/bitcoin-n ext-logical-stop-saylor-makes-huge-10-trillion-crypto-price-prediction/

Further reading and exploring at Michael Saylor's website: https://www.michael.com/en/bitcoin

ELON MUSK

Elon Musk, CEO of TESLA has a large investment of approximately 10,000 Bitcoins.

The electric car firm has offloaded 75% of its Bitcoin, which was worth about \$2bn (£1.7bn) at the end of 2021.

Tesla's \$1.5bn investment in Bitcoin, revealed in February 2021, prompted a surge in demand for the currency. The price of the notoriously volatile cryptocurrency soared last year to almost \$70,000 in November before crashing.

Source: https://www.bbc.co.uk/news/business-62246367

Elon Musk aimed to clarify that he's both a crypto investor and a supporter. He said the only major personal investments he has outside of his companies Tesla (TSLA) and SpaceX are in Bitcoin, Ethereum and Dogecoin. He added that Tesla and SpaceX also own Bitcoin.

Despite the turmoil he's created in the crypto world recently, Musk said he is "a supporter of Bitcoin and the idea of cryptocurrency in general."

Bitcoin jumps as Elon Musk suggests a way that Tesla could start accepting it again.

"If the price of Bitcoin goes down, I lose money,"

"I might pump, but I don't dump. I definitely do not believe in getting the price high and selling, or anything like this. I would like to see Bitcoin succeed."

BUY BITCOIN, YOU'LL THANK YOURSELF IN THE FUTURE

Source: https://edition.cnn.com/2021/07/21/tech/elon-musk-jack-d orsey-cryptocurrency/index.html

ANDREAS ANTONOPOULOS

Andreas M. Antonopoulos is a noted technologist and serial entrepreneur who has become one of the most well-known and well-respected figures in Bitcoin

Source: https://www.oreilly.com/pub/au/6107

Andreas is the author of "The Internet of Money" and "Mastering Bitcoin".

"Bitcoin is at the same stage as the Internet in 1992-1993. At that time, it took UNIX command-line skills to send email. No way near ready for mainstream adoption."

"Bitcoin has a tremendous 'network effect', in my opinion, which may give it an insurmountable early-mover advantage. In technology it is often not the best technology that "wins", but the one that achieves broad enough adoption and recognition early enough. Good enough beats best if deployed broadly."

"The average user should pick up Bitcoin: To experience the future of money. To gain a glimpse into an exciting technology. To learn about how money could be in the future and also become aware of how limited money and banks are today."

Source: <u>https://cointelegraph.com/news/top-10-quotes-from-andreas-antonopouloss-ama</u>

Further reading: https://aantonop.com/

BILL MILLER

Bill Miller is a market-beating fund manager and billionaire. He is so bullish on Bitcoin that investments tied closely to Bitcoin now represent 50% of his personal assets. Miller, who gained fame for beating the S&P 500 index for a record-breaking 15 years in a row from 1991-2005 as a fund manager at Legg Mason, has previously invested heavily in Bitcoin in funds that he managed, but his revelation about his personal portfolio was new.

Miller said he personally started buying Bitcoin at around \$200 in 2014 after hearing a talk by Wences Casares, known as the "Patient Zero" of Bitcoin for introducing it to Silicon Valley circles, at the annual Sun Valley media and tech conference.

Miller said he thinks Bitcoin is best thought of as "digital gold" with a strictly limited supply and that he's only recently allowed himself to be called a "Bitcoin bull" rather than just a "Bitcoin observer" because he feels that it's now developed into a game-changing technology.

Despite his own heavily concentrated position, Miller's advice for average investors is to put 1% of their net worth in Bitcoin, reasoning that "if you put 1% of your portfolio in it for diversification, even if it goes to zero, which I think is highly improbable, but of course possible, you can always afford to lose 1%."

Source: <u>https://www.coindesk.com/business/2022/01/10/billionaire-investor-bill-miller-now-has-50-of-his-personal-wealth-in-bitcoin/</u>

FIDELITY

Fidelity Investments was established in 1946 and is one of the largest asset managers in the world with \$4.5 trillion in assets under management, and their assets under administration amount to \$11.8 trillion. Yes, that is correct Trillion, not Billion.

Source: https://en.wikipedia.org/wiki/Fidelity Investments

Fidelity Digital Assets is a subsidiary of Fidelity Investments and operates as a separate business dedicated to digital assets.

Fidelity Investments began researching Bitcoin and blockchain technology in 2014, resulting in the creation of a dedicated business for this innovative asset class, Fidelity Digital Assets

Source: https://www.fidelitydigitalassets.com/

This is a very interesting read and highly recommend "Why investors need to consider Bitcoin separately from other digital assets". The full document can be read on the Fidelity website

Here are a few highlights from the document:

Bitcoin is best understood as a monetary good.

Bitcoin is a store of value asset in an increasingly digital world.

Bitcoin is fundamentally different from any other digital asset. No other digital asset is likely to improve upon Bitcoin as a monetary good because Bitcoin is the most (relative to other digital assets) secure, decentralized, sound digital money and any "improvement" will necessarily face tradeoffs.

BUY BITCOIN, YOU'LL THANK YOURSELF IN THE FUTURE

There is not necessarily mutual exclusivity between the success of the Bitcoin network and all other digital asset networks. Rather, the rest of the digital asset ecosystem can fulfil different needs or solve other problems that Bitcoin simply does not.

Other non-Bitcoin projects should be evaluated from a different perspective than Bitcoin.

Bitcoin should be considered an entry point for traditional allocators looking to gain exposure to digital assets.

Source: https://www.fidelitydigitalassets.com/sites/default/files/documents/bitcoin-first.pdf

BLACKROCK

BlackRock, Inc. is an American multinational investment company based in New York City. Founded in 1988, initially as a risk management and fixed income institutional asset manager, Black-Rock is the world's largest asset manager, with US\$10 trillion in assets under management as of January 2022. BlackRock operates globally with 70 offices in 30 countries and clients in 100 countries. Yes, Trillion not Billion.

Source: https://en.wikipedia.org/wiki/BlackRock

BlackRock has announced the launch of a spot Bitcoin private trust, deepening a push into digital assets as the crypto industry is recovering from the fallout of a credit crisis.

"Despite the steep downturn in the digital asset market, we are still seeing substantial interest from some institutional clients in how to efficiently and cost-effectively access these assets using our technology and product capabilities," BlackRock said in a statement.

Source: https://www.ft.com/content/0948f1a9-ad0b-4126-9ae8-5c e4e212c07e

CAMERON AND TYLER WINKLEVOSS (WIN-KLEVOSS TWINS)

You may know the Winklevoss twins from the film "The Social Network (2010)" based on Facebook's creation and legal dispute with Mark Zuckerberg. Or, maybe you saw them row in the Olympics in 2008.

Cameron and Tyler Winklevoss wrote a thesis on "The Case for \$500K Bitcoin". I highly recommend you read the thesis as it discusses in-depth reasoning for investing in Bitcoin. They also have a Bitcoin exchange called Gemini which has good functionality, UX and security.

Quotes and interesting parts from the document (note that this was written in 2020):

Inflation is coming. Money stored in a bank will get run over. Money invested in assets like real estate or the stock market will keep pace. Money stored in gold or Bitcoin will outrun the scourge. And money stored in Bitcoin will run the fastest, overtaking gold.

We believe that Bitcoin will continue to cannibalize gold and that this story will play out dramatically over the next decade. The rate of technological adoption is growing exponentially.

Bitcoin has already made significant ground on gold — going from whitepaper to over \$200 billion in market capitalization in under a decade. Today, the market capitalization of above-ground gold is conservatively \$9 trillion. If we are right about using a gold framework to value Bitcoin, and Bitcoin continues on this path, then the bull case scenario for Bitcoin is that it is undervalued by a multiple of 45. Said differently, the price of Bitcoin could appreciate 45x from

where it is today, which means we could see a price of \$500,000 U.S. dollars per Bitcoin.

Source: https://winklevosscapital.com/the-case-for-500k-bitcoin/

POSITIVE SENTIMENT

To further see what positive sentiment there is, the following links show Google Scholar Searches and a general Internet search:

Google Scholar: Why is Bitcoin a good investment?

Is Bitcoin a good investment asset?

https://www.repository.utl.pt/handle/10400.5/22852

Bitcoin investment: a mixed methods study of investment motivations

https://www.tandfonline.com/doi/abs/10.1080/0960085X.202 0.1787109

Bitcoin as an investment asset: The added value of Bitcoin in a global market portfolio

https://theses.ubn.ru.nl/handle/123456789/4434

Internet Search: Bitcoin investment strategies

What is the best long-term crypto investment strategy?

https://www.ziglu.io/blog/what-is-the-best-long-term-crypto-investment-strategy

New paradigm for monetary systems and mechanisms to store and transfer value.

https://ark-invest.com/strategy/cryptocurrency/

A Framework for Valuing Bitcoin

https://ark-invest.com/articles/analyst-research/valuing-bitcoin/

The Bitcoin Monthly. An "earnings report" that details on-chain activity and showcases the openness, transparency, and accessibility of blockchain data.

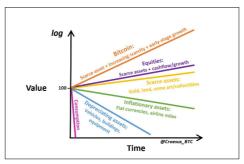
https://ark-invest.com/crypto-reports/the-bitcoin-monthly-october-report/

In this chapter we've taken a broad look at some arguments for buying and holding Bitcoin. These are positive sentiments from both individuals and organisations that see positive use cases for Bitcoin. In the next chapter we'll look at the arguments against buying and holding Bitcoin.

Chapter 4

AGAINST BUYING AND HOLDING BITCOIN

"Bitcoin addresses you generate are kept forever. A bitcoin address must be kept to show ownership of anything sent to it. If you were able to delete a bitcoin address and someone sent to it, the money would be lost. They're only about 500 bytes." **Satoshi Nakamoto**



Comparing Bitcoin to other assets using value and time

Source: https://twitter.com/bava23/status/1553017502006775811

Lets now dig deeper and have a look at who has a negative opinion about Bitcoin.

While there are the believers in Bitcoin, there are also the naysayers. Some believe that Bitcoin has no intrinsic value and will be worthless, going to zero. Some believe that Bitcoin is a Ponzi scheme, where the greater fool theory comes into play. Others think that like the "madness of crowds" there is a collective hysteria with FOMO (Fear of Missing Out). Others routinely point to the Dutch Tulips mania bubble of 1636.

These people and organisations will be looked at in more detail; Jamie Dimon, Warren Buffet, Nassim Nicholas Taleb, Bruce Schneier, Jemima Kelly, Amy Castor, and BBCD Satoshi.

QUOTES AGAINST BITCOIN:

"They are decentralized Ponzi schemes" - Jamie Dimon

Bitcoin is "probably rat poison squared" - Warren Buffet

"Bitcoin is a tumour" - Nassim Nicholas Taleb

JAMIE DIMON

Jamie Dimon is the Chairman of the Board and Chief Executive Officer of JPMorgan Chase & Co., a global financial services firm with assets of \$3.2 trillion and operations worldwide. The firm is a leader in investment banking, financial services for consumers, small business, commercial banking, financial transaction processing and asset management.

Source: <u>https://www.jpmorganchase.com/about/our-leader-ship/jamie-dimon</u>

He doubled down on his disdain for Bitcoin and some other cryptocurrencies, arguing they serve no purpose beyond vacuuming up new buyers' money to pay out profits to their existing holders. "I'm a major skeptic of crypto tokens, which you call currency, like Bitcoin," the JPMorgan CEO told the House Financial Services Committee on Wednesday. "They are decentralized Ponzi schemes, and the notion that it's good for anybody is unbelievable."

S o u r c e : https://markets.businessinsider.com/news/currencies/jpmorgan-jam/ie-dimon-bitcoin-crypto-blockchain-regulation-crime-ponzi-scheme-2022-9

WARREN BUFFET

Warren Buffett is an American businessman and philanthropist, widely considered the most successful investor of the 20th and early 21st centuries, having defied prevailing investment trends to amass a personal fortune of more than \$100 billion.

Source: <u>https://www.britannica.com/biography/Warren-Ed-ward-Buffett</u>

He made headlines in 2018 when he compared Bitcoin to "rat poison," urging long-term investors to stay away from a craze-driven bubble that he's sure will eventually collapse.

Source: <u>https://buffett.cnbc.com/2018/06/26/buffett-a-z-Bit-coinand-cryptocurrencies.html</u>

He said it's not a productive asset and it doesn't produce anything tangible. Despite a shift in public perception about Bitcoin, Buffett still wouldn't buy it.

"Whether it goes up or down in the next year, or five or 10 years, I don't know. But the one thing I'm pretty sure of is that it doesn't produce anything," Buffett said. "It's got a magic to it and people have attached magic to lots of things."

"Assets, to have value, have to deliver something to somebody. And there's only one currency that's accepted. You can come up with all kinds of things — we can put up Berkshire coins... but in the end, this is money," he said, holding up a \$20 bill. "And there's no reason in the world why the United States government ... is going to let Berkshire money replace theirs."

S o u r c e : https://www.cnbc.com/2022/04/30/warren-buffett-gives-his-most-ex pansive-explanation-for-why-he-doesnt-believe-in-bitcoin.html

NASSIM NICHOLAS TALEB

Nassim Nicholas Taleb is the author of the book "The Black Swan". He has reversed his stance on Bitcoin. He said in a recent paper that the largest cryptocurrency by market cap has failed to satisfy the notions of it as a currency without government, as a hedge against inflation and as a safe haven investment. "Few assets in financial history have been more fragile than Bitcoin," he said.

Taleb had previously spoken more favorably on Bitcoin, particularly on its potential to help people circumvent capital controls in markets that rely on them to manage their exchange rates. He called it "the first organic currency" in the foreword of "The Bitcoin Standard" in 2018 and "an insurance policy" against government control over currency.

In his recent paper, "Bitcoin, Currencies, and Fragility," says Bitcoin is worth "exactly zero" partly because it requires a sustained amount of interest to maintain it.

Source: <u>https://www.cnbc.com/2021/07/13/black-swan-author-nassim-taleb-says-bitcoin-is-worth-zero.html</u>

Further reading: https://www.politico.com/newsletters/digital-future-daily/2022/05/09/bitcoin-taleb-lindy-fidelity-digital-future-daily-00031105

Bitcoin, Currencies, and Fragility: https://arx-iv.org/pdf/2106.14204.pdf

BRUCE SCHNEIER

Bruce Schneier is an American cryptographer, computer security professional, privacy specialist, and writer. He is a board member of the Electronic Frontier Foundation. In 1994, Schneier published Applied Cryptography, which details the design, use, and implementation of cryptographic algorithms.

Source: https://en.wikipedia.org/wiki/Bruce-Schneier

"Bitcoin attracted a following for its openness and immunity from government control. Its goal is to create a world that replaces cultural power with cryptographic power: verification in code, not trust in people. But there is no such world. And today, that feature is a vulnerability. We really don't know what will happen when the human systems of trust come into conflict with the trustless verification that makes blockchain currencies unique."

Source:

<u>https://www.wired.com/story/opinion-bitcoins-greatest-feature-is-also-its-existential-threat/</u>

Further reading: https://www.schneier.com/blog/archives/2022/06/on-the-dangers-of-cryptocurrencies-and-the-uselessness-of-blockchain.html

JEMIMA KELLY

Jemima Kelly is a columnist for the Financial Times and has written pieces to do with Bitcoin and cryptocurrency which seem to either take a neutral or negative leaning view. The online comment sections of the articles are well worth reading.

"No, sorry, I won't take crypto seriously — either as an asset or as a form of money, which are in fact two contradictory propositions. In fact, I won't take it as anything other than as a serious risk to society, and perhaps something to bleakly laugh at now and again."

Source: <u>https://www.ft.com/content/f220f44f-3627-4797-b6fe-925</u> <u>3563db49d</u>

"Even without crashes and scams, the pyramidal structure of crypto is harmful in itself. It means that early adopters — who are still doing just fine, thank you very much — need constantly to recruit new members with false promises about how Bitcoin is the future of money, or the latest dishonest tagline: "We're all going to make it", or #WAGMI.

"We" are not, in fact all going to make it — in a negative-sum or even zero-sum game, that's impossible. The people using this line might, but that's because they got in before everyone else. They are relying on the "greater fool" — which they hope includes you, dear reader — continuing to believe these lies and perpetuating their dishonest schemes.

S o u r c e :

<u>h t t p s : //w w w . f t . c o m / c o n - tent/446e0e6a-6858-4e33-a6cf-8c2e302dc75d</u>

"The real reason Bitcoin maximalists want to separate Bitcoin from the rest of crypto is to create the illusion of scarcity in a world where there is none."

S o u r c e :

<u>b t t p s : / / w w w . f t . c o m / c o n - tent/8143dd85-ed05-4219-916e-922b802fe936</u>

AMY CASTOR

Amy Castor is a well known and respected writer within the arena of Bitcoin. Many of her articles are worth reading as they bring interesting and fresh perspectives including the failed Canadian crypto exchange QuadrigaCX. I highly recommend subscribing and following her.

She is an independent reporter and her stories have appeared in Artnet News, MIT Tech Review, Business Insider, The Block, Bitcoin Magazine, Coindesk, Forbes, Modern Consensus, and Decrypt.

She says: "I'm a nocoiner, meaning I don't hold any crypto assets." A few years ago, I had some Bitcoin but to borrow from Apple co-founder Steve Wozniak: "Part of my happiness is not to have worries, so I sold it all and just got rid of it."

Source: https://amycastor.com/

BBCD SATOSHI'S OPPOSITE OPINION, WHY YOU SHOULDN'T INVEST IN BITCOIN

Not everything is rose with Bitcoin. Let's imagine that there is a **Black Swan** event and Bitcoin disappears one day, goes to zero, and has a sustained **51% attack**, bug in code or other unknown unknown. How would you handle that event? Would you be OK or would this be disastrous for you? Think about it, because no one can know the future and doesn't know what is coming.

I think there is a 50/50 chance that Bitcoin will be a success over the next 10 years and equally fail for some reason. However, I feel that this is such an opportunity that in the next few years the positives outweigh the negatives and I'm willing to take the risk onboard.

NEGATIVE SENTIMENT

To further see what negative sentiment there is, the following links show Google Scholar Searches and a general Internet search:

Google Scholar and Internet Search: Why is Bitcoin not a good investment?

The Biggest Risks Of Investing In Bitcoin

https://www.forbes.com/sites/forbesbusinesscouncil/2021/06/17/the-biggest-risks-of-investing-in-bitcoin/?sh=5d12ebd64afd

The brutal truth about Bitcoin

https://www.brookings.edu/opinions/the-brutal-truth-about-bitcoin/

Bitcoin: What to Know Before Investing

https://www.wsj.com/articles/bitcoin-what-to-know-before-investing-11613498045

We've balanced out both the positive and negative views of Bitcoin. The arguments against buying and holding Bitcoin are strong and can certainly be viewed as welcomed. This is especially true when considering the philosophy of investing, when someone shouldn't invest in something that they don't know, or truly understand. The added complication with Bitcoin is investors should understand the security implications of investing in Bitcoin, self sovereignty and self custody of their Bitcoin using tools such as hardware wallets. In the next chapter, we'll look at the data aspect of Bitcoin and see how this can be used with charts and technical analysis for Bitcoin investing.

Chapter 5

CHARTS AND TECHNICAL ANALYSIS

"Bitcoin addresses you generate are kept forever. A bitcoin address must be kept to show ownership of anything sent to it. If you were able to delete a bitcoin address and someone sent to it, the money would be lost. They're only about 500 bytes." **Satoshi Nakamoto**



Representing simplicity versus complexity

Source: https://twitter.com/MemeingBitcoin/status/15820733983
26591489

Let's now look at the data and how this is used for analysing Bitcoin for investing.

The scope of this book is for strategic investing for the long term, and not trading on an hourly, daily, weekly or monthly basis. We're taking the yearly approach. However, this does mean at certain points you will need to trade (either buying or selling). How you choose to do that is up to you. Either through an established Bitcoin Exchange using their website, or their OTC (Over The Counter) service for large flat amounts, or some other means.

Bitcoin charts and graphs can be useful as an entry or exit point, to see if you are either buying or selling at the right or wrong time. Rather than flying blind, the charts will help you to see what the overall market place is doing.

TradingView

There are many providers of data and charting programs. These are available online and can either be accessed via your internet browser or as a stand-alone desktop programme. The one I recommend using is TradingView. With the TradingView product, you can chart and analyse Bitcoin against other currencies. You can also use TradingView to analyse traditional stocks. TradingView is very useful as you can perform your own research into Bitcoin. Please see screenshots of TradingView in later chapters of this book that I've taken.

Dollar Cost Averaging (DCA)

One of the simplest and most effective investing strategies is the Dollar Cost Averaging (DCA) approach. This is also known as "Stacking Sats" when discussing Bitcoin. At certain intervals you

buy (e.g. every year, quarter or month). A prime example as stated earlier in the book, the price of Bitcoin dipped to just below \$16,000 USD, whereas 1 year ago the price was \$69,000 USD. One way of looking at those figures is to look at how many Bitcoins you could acquire. If 1 Bitcoin was \$69,000 and you paid \$69,000 you would have 1 Bitcoin. However, that same amount divided by \$16,000 would mean you would have 4.3125 Bitcoins if you'd waited to purchase at a lower amount of \$16,000. So in essence you potentially would have an extra 3.3125 Bitcoin by purchasing at a lower amount, or conversely, if you were selling you would want to sell at \$69,000 rather than at \$16,000 to achieve a higher return in fiat currency.

Log/Logarithmic View:

When looking at pricing charts for the long term, zoom right out. Don't just use the normal view. Instead, also use the log/logarithmic view. The log view clearly shows over time the growth of Bitcoin. Interestingly, it's good to use this view too when looking at technology stocks such as Amazon, Apple, Microsoft and TESLA.

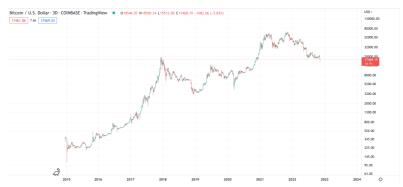
Normal View:



Normal view, very choppy and hard to see a trend in the Bitcoin to USD price

Source: TradingView from my own account

Log/Logarithmic View:



Log/Logarithmic view, choppiness smoothed out and clear trend seen

Source: TradingView from my own account

METRICS, MEASURES, AND LEVELS

With traditional investing, there are various measures and metrics. These tools can also be used for investing in Bitcoin. These include:

- MACD (Moving Average Convergence/Divergence)
- RSI (Relative Strength Index)
- Fibonacci Levels (Fibs)

MACD

The Moving Average Convergence/Divergence (MACD) indicator is a momentum oscillator primarily used to trade trends.

Although it is an oscillator, it is not typically used to identify overbought or oversold conditions. It appears on the chart as two lines which oscillate without boundaries. The crossover of the two lines gives trading signals similar to a two-moving average system.



Image demonstrating Moving Average Convergence/Divergence
Source: https://www.fidelity.com/learning-center/overview

RSI

The Relative Strength Index (RSI), is a momentum oscillator that measures the speed and change of price movements.

The RSI oscillates between zero and 100. Traditionally the RSI is considered overbought when above 70 and oversold when below 30. Signals can be generated by looking for divergences and failure swings. RSI can also be used to identify the general trend.



Image demonstrating Relative Strength Index (RSI)

Source: https://www.fidelity.com/learning-center/overview

FIBONACCI LEVELS

The Fibonacci retracement tool plots percentage retracement lines based on the mathematical relationship within the Fibonacci sequence.

Fibonacci numbers are a sequence of numbers in which each successive number is the sum of the two previous numbers: 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, and so on. These retracement levels provide support and resistance levels that can be used to target price objectives.

Fibonacci Retracements are displayed by first drawing a trend line between two extreme points. A series of six horizontal lines are drawn intersecting the trend line at the Fibonacci levels of 0.0%, 23.6%, 38.2%, 50%, 61.8%, and 100%.



Image showing Fibonacci Levels

Source: https://www.fidelity.com/learning-center/overview

PUTTING IT ALL TOGETHER

The following images are screenshots of my TradingView account which shows the Bitcoin weekly logarithmic view with Price, RSI, MACD and Fibonacci Retracements.



Source: Trading View from my own account



 $Log/Logarithmic\ View + RSI$

Source: Trading View from my own account



 $Log/Logarithmic\ View + RSI + MACD$

Source: Trading View from my own account



 $Log/Logarithmic\ View + RSI + MACD + Fibonacci\ Retracements$

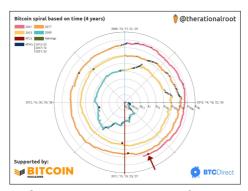
Source: Trading View from my own account

In this chapter we've looked at various charts and technical analysis methods using the data from Bitcoin. These charts and technical analysis methods have come from the traditional arena of buying, selling, trading and investing from traditional stocks and shares. Even within the traditional field of stocks and shares some people do not believe in the usefulness or point of charts and technical analysis. To the point that looking at charts and technical analysis is the same as reading tea leaves, horoscopes or phases of the moon. Using these charts and technical analysis with Bitcoin, can be useful but not solely on their own. They are a guide. They are a tool in the tool box and shouldn't be used on their own. Lets now expand the analysis of Bitcoin data and look at graphs, statistics and theories in the next chapter.

Chapter 6

GRAPHS, STATISTICS AND THEORIES

"Lost coins only make everyone else's coins worth slightly more. Think of it as a donation to everyone." **Satoshi Nakamoto**



Alternative representation of Bitcoin price and the halving cycles, showing All Time Low (ATL) and All Time High (ATH)

Source: https://twitter.com/therationalroot/status/1580106040607 068160

Let's dive further into the data to discover more about Bitcoin. There is a cottage industry that has built up for providing new graphs, statistics and charts for looking at Bitcoin in granular detail. These are for valuing Bitcoin, predicting prices and price changes with Bitcoin. Be careful, because there is the potential for some to be pseudo-accurate, as they are theories and only models. These Bitcoin-specific metrics include:

- 1) 200-Week Moving Average Heatmap
- 2) The Puell Multiple
- 3) Stock-to-Flow Model
- 4) Bitcoin Logarithmic Growth Curves
- 5) Long-Term Power-Law Corridor of Growth (Power Law)
- 6) Clarke Moody Dashboard
- 7) Bitcoin Halving Countdown

Here is a selection of statistics, graphs and models which have been used as sources in the following pages. Most of these graphs and charts are interactive, so you can zoom in and out in very fine granular details.

My favourite chart is the Long-Term Power-Law Corridor of Growth (Power Law) developed by Harold Christopher Burger. It will be very interesting to see how this particular theory/chart holds up over the coming months and years. I highly recommend

looking at all of the graphs and charts from the links below as they are both interesting and intriguing.

Bitcoin Halving Countdown by CoinMarketCap

https://coinmarketcap.com/halving/bitcoin/

Buy Bitcoin Worldwide

https://buybitcoinworldwide.com/stats/long-term-power-law/

Clarke Moody Bitcoin Dashboard

https://bitcoin.clarkmoody.com/dashboard/

Glassnode

https://studio.glassnode.com/metrics?a=BTC&m=addresses.ActiveCount

LookInToBitcoin

https://www.lookintobitcoin.com/charts

200-WEEK MOVING AVERAGE HEATMAP

In each of its major market cycles, Bitcoin's price historically bottoms out around the 200-week moving average.

Long-term Bitcoin investors can monitor the monthly colour changes. Historically, when we see orange and red dots assigned to the price chart, this has been a good time to sell Bitcoin as the market overheats. Periods, where the price dots are purple and close to the 200-week MA, have historically been good times to buy. Over more than ten years, \$BTC has spent very little time below the 200-week moving average (200WMA) which is also worth noting when thinking about price predictions for Bitcoin or a Bitcoin price forecast.



200-WEEK MOVING AVERAGE HEATMAP

Source: https://www.lookintobitcoin.com/charts/200-week-moving-average-heatmap/

Created by and further reading: Plan B

https://twitter.com/100trillionUSD

THE PUELL MULTIPLE

This metric looks at the supply side of Bitcoin's economy - Bitcoin miners and their revenue. It explores market cycles from a mining revenue perspective.

Bitcoin miners are sometimes referred to as compulsory sellers due to their need to cover fixed costs of mining hardware in a market where the price is extremely volatile. The Puell Multiple is calculated by dividing the daily issuance value of Bitcoins (in USD) by the 365-day moving average of daily issuance value. There are periods of time where the value of Bitcoins being mined and entering the ecosystem is too great or too little relative to historical norms. Understanding these periods of time can be beneficial to the strategic Bitcoin investor.

The Puell Multiple can be a useful Bitcoin forecasting tool to identify based on this metric whether the price is too high and needs to drop (when the indicator is in the red zone), or whether it is too low and may need to bounce (indicator is in the green zone).



THE PUELL MULTIPLE

Source: https://www.lookintobitcoin.com/charts/puell-multiple/

Created by and further reading: David Puell

https://medium.com/unconfiscatable/the-puell-multiple-bed75 5cfe358

STOCK-TO-FLOW MODEL

This model treats Bitcoin as being comparable to commodities such as gold, silver or platinum.

These are known as 'store of value' commodities because they retain value over long time frames due to their relative scarcity. It is difficult to significantly increase their supply i.e. the process of searching for gold and then mining it is expensive and takes time. Bitcoin is similar because it is also scarce. In fact, it is the first-ever scarce digital object to exist. There are a limited number of coins in existence and it will take a lot of electricity and computing effort to mine the outstanding coins still to be mined, therefore the supply rate is consistently low.

On the Stock-to-Flow Model, the chart price is overlaid on top of the stock-to-flow ratio line. Price continues to follow the stock-to-flow of Bitcoin over time. The theory, therefore, suggests that we can project where price may go by observing the projected stock-to-flow line, which can be calculated as we know the approximate mining schedule of future Bitcoin mining.

The coloured dots on the price line of this chart show the number of days until the next Bitcoin halving (sometimes called 'halvening') event. This is the event where the reward for mining new blocks is halved, meaning miners receive 50% fewer Bitcoins for verifying transactions. Bitcoin halvings are scheduled to occur every 210,000 blocks – roughly every four years – until the maximum supply of 21 million Bitcoins has been generated by the network. That makes the stock-to-flow ratio (scarcity) higher so in theory the price should go up. This has held true previously in Bitcoin's history.



STOCK-TO-FLOW MODEL

Source: https://buybitcoinworldwide.com/stats/stock-to-flow/

Created by and further reading: Plan B

https://twitter.com/100trillionUSD

 $\frac{https://medium.com/@100trillionUSD/modeling-bitcoins-value}{-with-scarcity-91fa0fc03e25}$

BITCOIN LOGARITHMIC GROWTH CURVES

The logarithmic analysis uses historical data to forecast and predict future prices. The Bitcoin Logarithmic growth curve takes all the historical price data of Bitcoin and uses log growth analysis to develop curves that project a potential path of future price growth.

Historically, price tends to bounce between the upper and lower bounds of the logarithmic growth curve. The reason for this is because Bitcoin moves through market cycles.



BITCOIN LOGARITHMIC GROWTH CURVES

Source: <u>https://www.lookintoBitcoin.com/charts/bitcoin-logarithmic-growth-curve</u>

Further reading: Harold Christopher Burger, Cole Garner and Quantadelic

https://twitter.com/hcburger1

https://twitter.com/ColeGarnerBTC/media

https://twitter.com/quantadelic/media

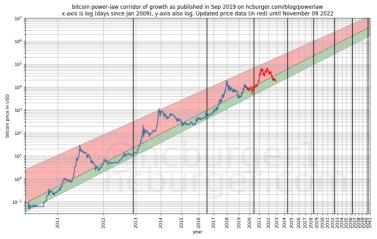
LONG-TERM POWER-LAW CORRIDOR OF GROWTH (POWER LAW)

This is a wonderful, thought provoking piece by Harold Christopher Burger. It is very well written and succinct.

This model does not attempt to predict bull markets, which seem to occur periodically. However, bull markets are expected to fall within the corridor defined by this model.

The key takeaways/summary for the Long-Term Bitcoin Power Law:

- The price will reach \$100,000 per Bitcoin no earlier than 2021 and no later than 2028.
- After 2028, the price will never drop below \$100,000.
- The price will reach \$1,000,000 per Bitcoin no earlier than 2028 and no later than 2037.
- After 2037, the price will never drop below \$1,000,000.



LONG-TERM POWER-LAW CORRIDOR OF GROWTH (POWER LAW)

Source: <u>https://twitter.com/hcburger1/status/15907014725847203</u>85

NOVEMBER 2022 LONG-TERM POWER-LAW CORRIDOR OF GROWTH (POWER LAW)

Looking closer at November 2022, you can see how close we are to the support line. Will the support line be breached?



Zoomed out view of the Long-Term Power-Law Corridor of Growth (Power Law)

Source: $\underline{https://buybitcoinworldwide.com/stats/long-term-power-law/}$



Zoomed in to see how close the price is to the support line

Source: $\underline{https://buybitcoinworldwide.com/stats/long-term-power-law/}$



Further zoomed in to see how close the price is to the support line

Source: $\underline{https://buybitcoinworldwide.com/stats/long-term-power-law/}$

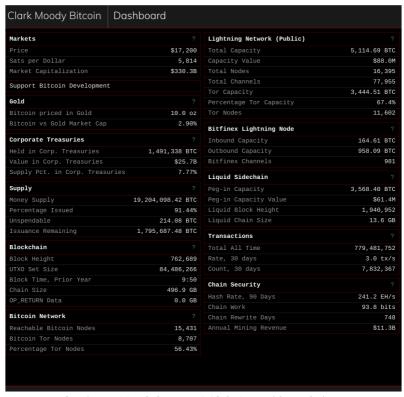
Created by and further reading: Harold Christopher Burger

https://twitter.com/hcburger1

https://hcburger.com/blog/

CLARKE MOODY BITCOIN DASHBOARD

The dashboard is full of many statistics and metrics. When looking at this dashboard you can scroll right and left to reveal many more pieces of data.



CLARKE MOODY BITCOIN DASHBOARD

Source: Clark Moody https://bitcoin.clarkmoody.com/dashboard/

BITCOIN HALVING COUNTDOWN

This is a snapshot of the Bitcoin Halving Countdown that was taken in November 2022.

Bitcoin Halving Countdown

Bitcoin block reward will decrease from 6.25 to 3.125 coins in approximately



BITCOIN HALVING COUNTDOWN



Source: $CoinMarketCap \ \underline{https://coinmarketcap.com/halving/bitcoin/}$

In this chapter we've looked at many interesting and thought provoking graphs, statistics and theories. These are all garnered from the data Bitcoin provides. Many of these are models and as the expression goes "All models are wrong, but some are useful" (George Box). Over time these models are either going to be proved right or wrong. In the future some may even seem laughable. But who knows. Taken with a pinch of salt and healthy scepticism is wise. Using them in conjunction with other data points and knowledge is the right thing to do. The Long-Term Power-Law Corridor of Growth (Power Law) is quite remarkable and will be very interesting to keep an eye on. Why does this seem to fit? Could it be due to not only the decreasing supply, but also the fact that Bitcoins are lost. Lost Bitcoins coming from the death of the owner, lost seed phrase/private key, forgotten or destroyed coins. Do those lost Bitcoins help to create the support because those lost Bitcoins are in fact the Hodlers of last resort? Lets now get away from the data aspect and look at the main narratives of Bitcoin.

Chapter 7

NARRATIVES

"In this sense, it's more typical of a precious metal. Instead of the supply changing to keep the value the same, the supply is predetermined and the value changes. As the number of users grows, the value per coin increases. It has the potential for a positive feedback loop; as users increase, the value goes up, which could attract more users to take advantage of the increasing value." **Satoshi Nakamoto**



Eloquently showing the intersection where Bitcoin resides

Source: https://twitter.com/btc/status/1529089532846538758

Bitcoin, just like everything else, needs a good story or a way of framing a concept and idea. Sometimes these ideas can shift over time. The main narratives for Bitcoin include being thought of as:

- 1) Digital Cash
- 2) Magic Internet Money
- 3) An Inflation hedge
- 4) A Store of wealth
- 5) Digital Gold 2.0.

There are a full range of buyers and sellers of Bitcoin. These range from retail investors, through to businesses and corporations, to Institutions and potentially Governments. They all fit the above narratives.

The question will be, when will more Central Banks buy and hold Bitcoin? As a thought experiment, if the US Federal Reserve (FED) can print US Dollars, why wouldn't they very slowly (so as not to increase the price too quickly and inform the market) start to buy Bitcoins. Will the Bitcoins they own essentially be free and have no cost? How would this impact Bitcoin if the US FED became the largest holder of Bitcoins?

Examples of Bitcoin holders include:

- 1) Retail (Everyday people)
- 2) Businesses (MicroStrategy, TESLA)
- 3) Institutions (Fidelity)
- 4) Governments (El Salvador)

Corporations and institutions are now actively participating in the Bitcoin ecosystem throughout the world. Two companies TES-LA and MicroStrategy have publicly stated they have purchased Bitcoins and hold them on their companies balance sheets. These purchases, at the time, were in the Billions of USD value. It will be interesting to see in 5 years what their initial holdings will be worth in USD dollars. Will TESLA and MicroStrategy extract a percentage of Bitcoin into USD and provide this as a dividend to shareholders? It's unclear, but they are either going to be trail blazers setting a trend that others will follow, or history will not look fondly upon them with their folly into Bitcoin. Time will tell.

There are some other institutions that will be worth watching to see what they do. They may well be a barometer for future actions of corporations and institutions. These are Fidelity and Blackrock as previously discussed. A couple of businesses that operate specifically for institutions are Anchorage Digital and Fireblocks which are interesting to learn about and research. Please see the end of the book for their websites.

PUBLIC ORGANISATIONS HOLDING BITCOIN:

It's quite fascinating to see in 2022 that there are public facing organisations that hold Bitcoin. The following image shows the top 10 organisations by quantity of Bitcoins that they own.



PUBLIC ORGANISATIONS HOLD-ING BITCOIN

Source: https://buyBitcoinworldwide.com/treasuries/

When thinking of narratives and a frame of reference for buying Bitcoin, these following reasons give added credence to being in the camp to be positive:

SOME REASONS FOR OWNING BITCOIN:

- 1) Value retention.
- 2) Bitcoin could be a better inflation hedge.
- 3) Bitcoin could mirror gold during geopolitical uncertainty.
- 4) The dollar keeps losing value.
- 5) Bitcoin is scarce and deflationary.

Source: <u>https://cointelegraph.com/news/5-reasons-why-bitcoin-could-be-a-better-long-term-investment-than-gold</u>

FURTHER REASONS FOR OWNING BITCOIN:

- 1) The supply is fixed.
- 2) Assuming Bitcoin is adopted for a number of practical applications, its value will rise significantly.

- 3) More and more people and businesses seem to be using Bitcoin.
- 4) A higher price could increase transaction volume, which would then further boost the price.
- 5) Bitcoin has a first-mover advantage over the other digital currencies.
- 6) A comparison to gold suggests Bitcoin could be undervalued.
- 7) Comparing Bitcoin with a technology company also suggests it could someday be quite valuable.
- 8) More investors are taking it seriously and using it as a portfolio diversifier.

The above was written by Laura Shin in 2015

Source: https://www.forbes.com/sites/laurashin/2015/12/11/should-you-invest-in-bitcoin-10-arguments-in-favor-as-of-december-2015

In this chapter we've looked at various narratives including Bitcoin being digital cash, magic internet money, an inflation hedge, a store of wealth and digital gold. How will the narrative of Bitcoin change within the next 10 years? It's very hard to predict. We've also looked at the type of holders. The stage seems set for larger institutions to be playing a bigger part in the Bitcoin ecosystem. With institutions such as BlackRock and Fidelity getting involved, it seems just a matter of time until the US Federal Reserve, Bank of England, or the European Central Bank get involved with Bitcoin. Whether this will be a positive action for Bitcoin remains to be seen. Let's now look at potential strategies for someone wanting to buy and hold onto Bitcoin.

Chapter 8

POTENTIAL STRATEGIES

"The root problem with conventional currency is all the trust that's required to make it work. The central bank must be trusted not to debase the currency, but the history of fiat currencies is full of breaches of that trust." **Satoshi Nakamoto**



Without showing your hands is the best strategy to just hold (Hodl)?

Source: https://twitter.com/BitcoinMagazine/status/15605853358
https://twitter.com/BitcoinMagazine/status/15605853358

Let's now look at some potential strategies for buying and holding Bitcoin.

"Buy Bitcoin, you'll thank yourself in the future" is my mantra. As an example, investing 5% of your overall cash/fiat position into Bitcoin. From there, you can then gradually reduce this 5% over 10 years by diversifying the gains back into either cash/fiat, property or other assets. This is while keeping 1% invested in Bitcoin as an insurance policy against geopolitical risks and a hedge against inflation.

This is just one strategy. Ultimately your strategy depends on what your own goals, risk appetite and investment strategy is.

The word HODL is used to say "hold". However the idea of only holding and never selling should be looked at carefully depending on what your plan and strategy is. Have a quick search on the internet to see where the word HODL comes from and what it means.

The initial 5% quoted may be too high or low for you which would need adjusting. Depending on your circumstances, experience and risk appetite that 5% may be adjusted lower at 2.5% or 1%, alternatively much higher at 30% or even 75%. That is up to you to decide, and only you. Ultimately, have a plan and stick to it. Keep emotions out of your decision making with Bitcoin.

This discussion is a focus on strategic investing, rather than trading. Trading is essentially buying and selling on a short time frame (weeks, days, hours, minutes). Investing, or strategic investing is holding/buying/selling Bitcoin for a longer time period (monthly, quarterly, annually, every halving).

10 BIGGEST MISTAKES NEW CRYPTO INVESTORS MAKE

While researching elements for this book, I came across this list. It's worth while having a look at each one:

- 1) Lack of Basic Crypto Knowledge.
- 2) Ignoring Fees.
- 3) Short-term Thinking.
- 4) Keeping Crypto in Online Wallets.
- 5) Forgetting Crypto Passwords or Seed Phrases.
- 6) Wrong Wallet Address.
- 7) Getting Scammed.
- 8) Use of Leverage.
- 9) Overcomplicated Trading Strategy.
- 10) Order Errors.

Source: <u>https://www.investopedia.com/crypto-investment-mistake-6504260</u>

STRATEGY AND RISK MANAGEMENT:

You'll need to work out what your goals and objectives are for investing in Bitcoin. When this is done you can then devise a strategy for yourself. This will depend on many factors, but ultimately only you can devise the strategy. As an example of strategy, I will put some ideas below and also outline how risk management can interlock with the strategy.

Risk management means making sure you don't have all your eggs in one basket. In terms of risk management this can be aiming for a sweet spot to keep a percentage in either Bitcoin or other assets that you hold. Here are some risk management examples:

REBALANCING

Aim to put 5% of your wealth in Bitcoin with a ceiling of 20%. This means you initially invest 5% of your wealth, however over time this grows to be a total of 20% of your wealth, so you decide to rebalance back to 5%. This would mean selling 15% of your Bitcoin into another asset for example USD or GBP. This 15% amount can then be kept as fiat currency in savings or dry powder to purchase more Bitcoin if the price goes below a certain threshold or purchasing other assets such as stock, shares or property.

To keep things simple, let's just focus on Bitcoin and fiat money such as USD or GBP. In this scenario you decide to start with 5% of your wealth in Bitcoin and the remaining 95% in other assets. However over time the 5% creeps up to 10%, so again to manage your exposure you sell half your Bitcoin to bring the overall percentage back down to 5%, with your fiat currency now rebalanced.

BALANCED PORTFOLIO 50%

Someone who is far more able to accept risk may start with 50% allocated to Bitcoin and 50% allocated to fiat currency. When Bitcoin reaches 80% this is the time to sell 30% of Bitcoin into Fiat Currency to rebalance to 50% and 50%. Likewise the rebalance could occur the other way if Bitcoin tumbles and you want to rebalance fiat into Bitcoin, which would then mean you increase your Bitcoin holdings.

BALANCED PORTFOLIO 25%

Alternatively you start with 25% and when Bitcoin swings to 75% of your allocation, you then sell the 50% back to Fiat and then have your portfolio balanced again.

STRATEGIC INVESTING

Strategic investing with Bitcoin has to be looked at over the long term time frame. Here are some potential strategies with this mindset:

Strategy 1:

Buy and Hold Bitcoin in a cold storage/hardware wallet.

Consider selling all within 5, 10 or 20 years.

Strategy 2:

Buy and Hold Bitcoin selling 10% of initial investment every 1 year.

E.g. Buy \$10,000 worth of Bitcoin, then each year sell 10% of the Bitcoin. If you bought 1 Bitcoin, each year you would sell 0.1 Bitcoin. This would be a 10 year strategy

Strategy 3:

Buy and Hold Bitcoin selling 5% of initial investment every 1 year.

E.g. Buy \$10,000 worth of Bitcoin, then each year sell 5% of the Bitcoin. If you bought 1 Bitcoin, each year you would sell 0.05 Bitcoin. This would be a 20 year strategy

Strategy 4:

DCA (Dollar Cost Average) / Stacking Sats.

This strategy would be where you systematically buy a set amount of Bitcoin (either US Dollar amount or actual Bitcoin amount) each week, month, quarter or year. The expression "Stacking Sats" relates to this.

The following images demonstrate the principle of DCA:

Portfolio value over time

	Dollar-cost averaging		Lump sum investment	
	Total invested	Estimated total portfolio	Total invested	Estimated total portfolio
Dec 18, 2017	\$100	\$100	\$16,300	\$16,300
Dec 17, 2018	\$5,300	\$2,986	\$16,300	\$4,521
Dec 16, 2019	\$10,500	\$11,982	\$16,300	\$8,611
Jan 25, 2021	\$16,300	\$65,176	\$16,300	\$34,719
Total return		299%		113%

DCA (Dollar Cost Average) / Stacking Sats

Source: https://www.coinbase.com/learn/tips-and-tutorials/dollar-cost-averaging



DCA (Dollar Cost Average) / Stacking Sats chart

Source: https://www.coinbase.com/learn/tips-and-tutorials/dollar-cost-averaging

Strategy 5:

Halving Supply Event Every 4 years.

Looking back at the history of Bitcoin, cycles can be seen from the charts and graphs. These cycles should be considered when considering your strategic investment, both buying and selling. One of the key areas of the cycle is the Halvening (Halving / Halfing) event every 4 years. Buy at the low and sell at the top.

The Macro Economic environment impacts the price of Bitcoin. However it is too early in the life of Bitcoin to be certain how these factors impact Bitcoin. These factors include Inflation, Deflation, Interest Rates, Negative Interest Rates, Quantitative Easing (QE) and Quantitative Tightening. The Macro Economic environment also changes people's behaviour in the wider economy which also has a large part to play with Bitcoin. For example, overall sentiment

in the economy and stock market may impact the behaviour of participants in Bitcoin. There has been talk of a decoupling of the correlation of the price of Bitcoin to the stock markets. Whether or not this will hold true is up for debate, but time will tell. Human behaviour, FOMO, Sentiment, Macro Economic Environment, Politics and the Bitcoin protocol all have their part to play.

HAVE A PLAN

Overall it is important to have a plan for your Bitcoin investment. The next important point is to stick to your plan. To help with this, DCA can be an advantage. Within this plan, the philosophy of KISS (Keep It Simple Stupid) is great, as it can:

- 1) Simplify your Bitcoin strategy
- 2) Don't over complicate
- 3) Strategic Patience
- 4) Remember a decision to do nothing, is a decision
- 5) Doing nothing, is a strategy

"TIME IN THE MARKET, VERSUS TIMING THE MARKET"

This expression can sum up investing for the long term in Bitcoin, with a longer time horizon say 5 to 10 years, rather than trading Bitcoin where you sell every day, hour or minute. Always zoom out, when looking at Bitcoin charts look at the monthly time frame.

To further see what the sentiment there is, the following links show Google Scholar searches and a general Internet search.

Evidence and research from Google Scholar: Why buy Bitcoin?

Should you buy Bitcoin? By Adair Turner. February 2, 2018 – Project Syndicate

https://www.economics.utoronto.ca/gindart/

Baur, D. G., & Hoang, L. (2021). The Bitcoin gold correlation puzzle. *Journal of Behavioral and Experimental Finance*, 32, 100561.

https://doi.org/10.1016/j.jbef.2021.100561

https://www.sciencedirect.com/science/article/abs/pii/S2214635021001052

Bitcoin - Asset or Currency? Revealing Users' Hidden Intentions. ECIS 2014 (Tel Aviv). 16 Apr 2014 Last revised: 22 May 2015

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2425247

Internet Search: Bitcoin investment strategies

When is the best time to invest in crypto? An introduction to dollar-cost averaging – a long-term investment strategy

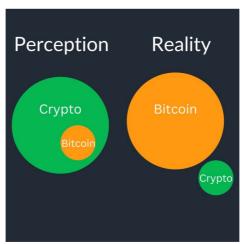
https://www.coinbase.com/learn/tips-and-tutorials/dollar-cost-averaging

In this chapter we've looked at a few strategies for buying and holding Bitcoin. These are just a handful of suggested strategies. Let's now look at a more light hearted view of Bitcoin through the use of infographics and memes in the next chapter. Even though they are light hearted, memes are very effective at communicating complicated themes and subjects.

Chapter 9

INFOGRAPHICS AND MEMES

"How does everyone feel about the B symbol with the two lines through the outside? Can we live with that as our logo?" **Satoshi Nakamoto**



Clean and simple graphic separating
Bitcoin from "Crypto"

Source: <u>https://twitter.com/AlessandroOtt17/status/15922332675</u> 62008578

It's a cliche that a picture says a thousand words. But it's true.

Let's now look at some infographics and memes. These are great ways to quickly, efficiently and effectively get a complicated situation explained. This is especially true when discussing Bitcoin.

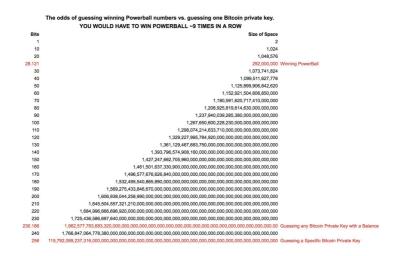
Often with humour and tongue in cheek, there is always a charm in the images and underlying messages that often pick a popular culture reference, figure or personality and apply it to the here and now

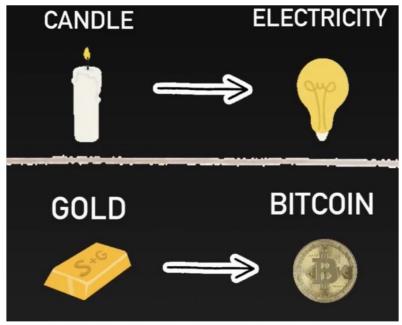
These following images are all from Twitter. Of course, there are many more, these are just a few hand-picked ones.



Tongue in cheek design of a physical paper based Bitcoin

Source: https://twitter.com/luchopolettiart/status/1589694380545
572865/photo/1





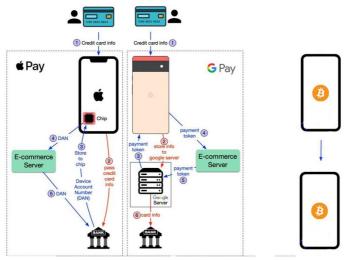
As a candle is to an electric bulb, so is a bar of gold to a Bitcoin

Source: https://twitter.com/BitcoinMagazine/status/15892589128 71903235



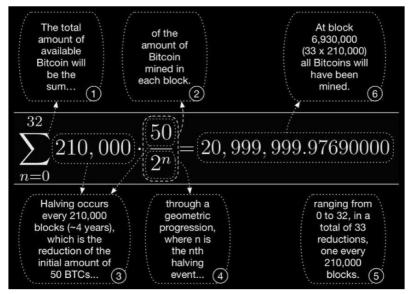
Zooming out shows a clear trend on a longer time horizon

Source: https://twitter.com/ssaurel/status/1588842266533441537



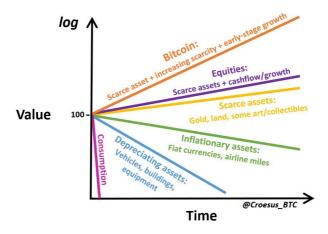
Comparing payment method complexities

Source: https://twitter.com/MemeingBitcoin/status/15886194023
70764801



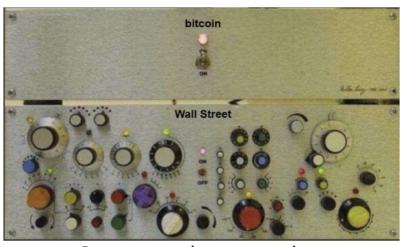
Annotated equation for Bitcoin

Source: https://twitter.com/HoratiusHODL/status/158674766349 1293184



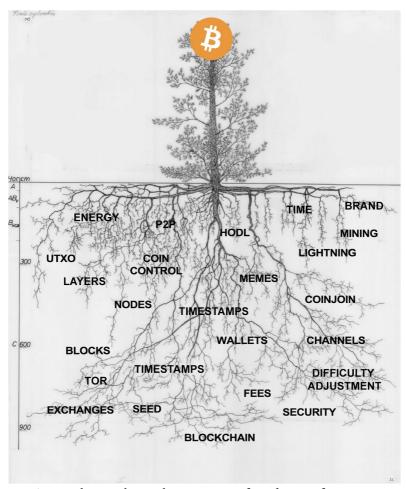
Comparing Bitcoin to other assets using value and time

Source: https://twitter.com/bava23/status/1553017502006775811



Representing simplicity versus complexity

Source: https://twitter.com/MemeingBitcoin/status/15820733983
26591489



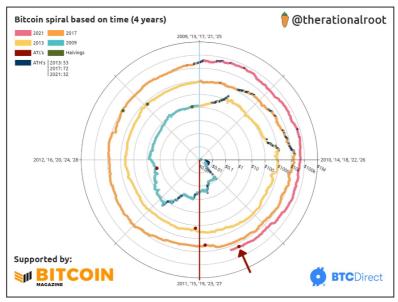
Aspects that make up the strong root foundations for Bitcoin

Source: https://twitter.com/crypto rand/status/158231788423127
4496



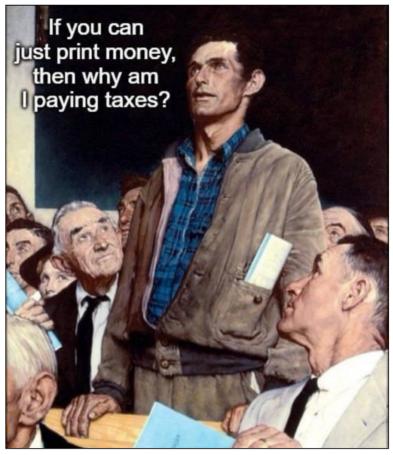
Interesting discussion about Bitcoin, mining, and limits of physics

Source: <u>https://twitter.com/FractalEncrypt/status/1578468450657</u> <u>521664</u>



Alternative representation of Bitcoin price and the halving cycles

Source: https://twitter.com/therationalroot/status/1580106040607 068160



Thought provoking quote and image which underscores inflation and control by taxation

Source: https://twitter.com/clancyRbtb/status/1577760935011393 536



Love him or hate him, Nigel Farage is often before his time

Quote: (Nigel Farage) I own Bitcoin

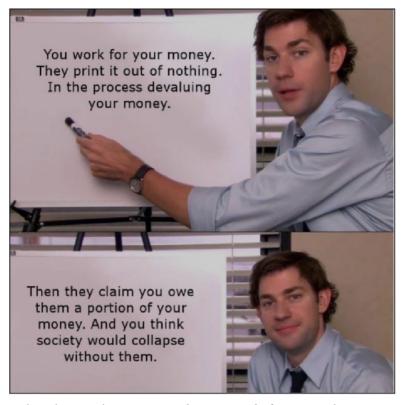
Source: https://twitter.com/BitcoinMagazine/status/15806064613 60893952



The new Monarch reigning over a new and different world

Quote: King Charles III on Bitcoin: It's a "very interesting development."

Source: https://twitter.com/BitcoinMagazine/status/15694339175
34470146



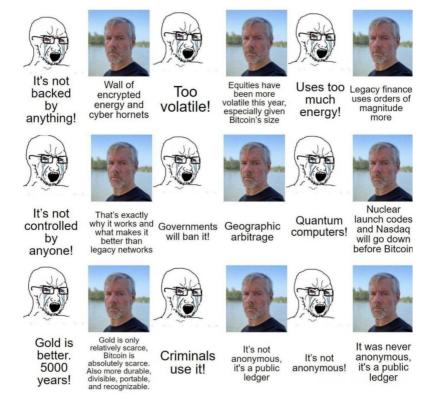
Thought provoking quote and image underlining work, money, printing money and taxation

Source: https://twitter.com/lopp/status/1563412532768825345



Without showing your hands, is the best strategy to just hold (Hod l)?...

Source: https://twitter.com/BitcoinMagazine/status/15605853358
https://twitter.com/BitcoinMagazine/status/15605853358



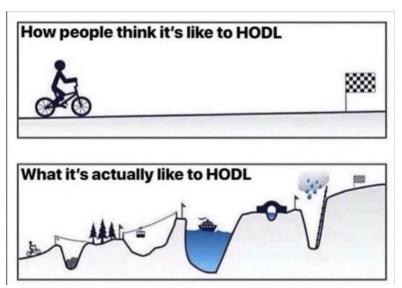
Simple answers to debunking main stream media criticisms of Bitcoin

Source: https://twitter.com/BitcoinMagazine/status/1548310199
609409550



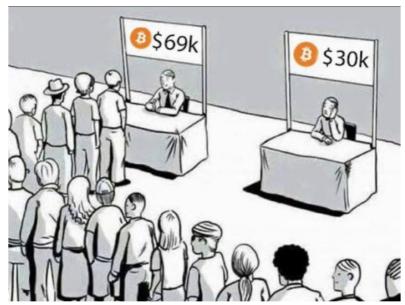
Image from film Fight Club (1999) using the famous quote from the film, altered for Bitcoin

Source: https://twitter.com/BitcoinMagazine/status/15410102439
49395969



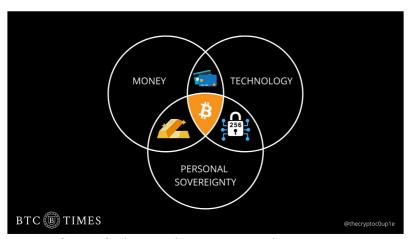
Hodling is difficult. Best thing is to put your Bitcoin away in cold storage

Source: https://twitter.com/danheld/status/1537078715393486848



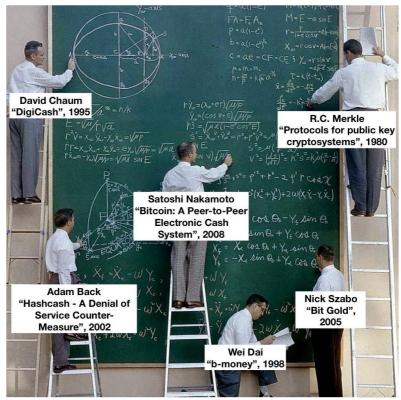
Sums up Fear of Missing Out (FOMO), Madness of crowds, game theory and buyer behaviour

Source: https://twitter.com/BitcoinMagazine/status/15366495507 18443526



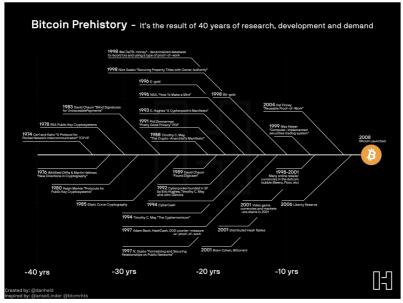
Eloquently showing the intersection where Bitcoin sits

Source: https://twitter.com/btc/status/1529089532846538758

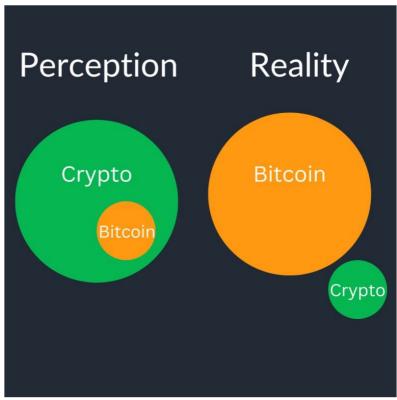


Bitcoin stands on the shoulders of giants over many years

Source: https://twitter.com/danheld/status/1503733891743551491



Showing the developments that ultimately lead to Bitcoin

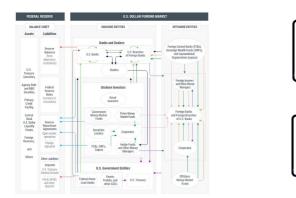


Clean and simple graphic separating Bitcoin from "Crypto"

Source: https://twitter.com/AlessandroOtt17/status/15922332675
62008578

How dollars work

How bitcoin work



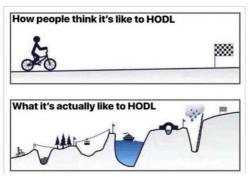
Showing the complexities involved for the US Dollar and Federal Reserve

Source: https://twitter.com/MemeingBitcoin/status/15939737817 26658560

Chapter 10

CLOSING

"It might make sense just to get some in case it catches on. If enough people think the same way, that becomes a self fulfilling prophecy. Once it gets bootstrapped, there are so many applications if you could effortlessly pay a few cents to a website as easily as dropping coins in a vending machine." **Satoshi Nakamoto**



Hodling is difficult. Best thing is to put your Bitcoin away in cold storage

Source: https://twitter.com/danheld/status/1537078715393486848

So we've come to the end, which may in fact be the start of the beginning of your Bitcoin journey.

In summary, as simple as it sounds the expression "Buy Bitcoin, you'll thank yourself in the future" sums up exactly what I've been trying to convey and explain here.

As a simple strategy, investing 5% of your overall wealth into Bitcoin and then gradually reducing this 5% over 10 years (while keeping 1% always invested in Bitcoin as an insurance policy and hedge against inflation) could be a good way to build your wealth and invest in Bitcoin. This is just one strategy, depending on what your goals and strategy is.

Always remember, with Bitcoin only invest what you are truly willing to lose. Who knows, one day we could wake up and Bitcoin doesn't exist any more or Bitcoin is worth zero. However, this scenario is unlikely yet it is possible.

We've looked at various key facts. Including 90% of all Bitcoins have been issued which is approximately 19,200,000 Bitcoins. 1,800,000 Bitcoins remain to be mined. The next halving event due to take place in April/May 2024 reduces the supply to 3.125 every 10 minutes. 1 Bitcoin is made up of 100,000,000 (100 Million) units called Satoshi's (also known as Sats). These key facts are what makes Bitcoin attractive as an investment, hedge against inflation and a way to protect your own wealth in turbulent times.

We've covered arguments for and against buying Bitcoin. The selected people and organisations arguing for Bitcoin included Michael Saylor, Elon Musk, Andreas Antonopoulos, Bill Miller, Fidelity, Blackrock and the Winklevoss Twins. The selected people and organisations arguing against Bitcoin included Jamie Di-

mon, Amy Castor, Warren Buffet, Nassim Nicholas Taleb, Bruce Schneier and Jemima Kelly from the Financial Times.

We then looked at other aspects to do with data including technical analysis, graphs, statistics, log/logarithmic view, metrics, theories, strategy, being a HODLer, thought about the question of money, risk management and importantly the opposite, why you shouldn't invest in Bitcoin.

The three areas we looked at for Technical Analysis were MACD (Moving Average Convergence/Divergence), RSI (Relative Strength Index) and Fibonacci Levels (Fibs).

The niche statistics and models include 200-Week Moving Average Heatmap, The Puell Multiple, Stock-to-Flow Model, Bitcoin Logarithmic Growth Curves, Long-Term Power-Law Corridor of Growth (Power Law), Clarke Moody Dashboard and the Bitcoin Halving Countdown.

The strategies and risk management we discussed include the 10 biggest mistakes new crypto investors make including: lack of basic knowledge, ignoring fees, short-term thinking, keeping crypto in online wallets, forgetting crypto passwords or seed phrases, wrong wallet address, getting scammed, use of leverage, overcomplicated trading strategy and order errors.

Some simple strategies we discussed include:

- 1) Rebalancing your portfolio
- 2) Buying and holding Bitcoin in a cold storage/hardware wallet and consider selling all within 5, 10 or 20 years

- 3) Buying and holding Bitcoin and then selling 10% of initial investment every 1 year. This would be a 10 year strategy
- 4) Buying and holding Bitcoin selling 5% of initial investment every 1 year. This would be a 20 year strategy
- 5) DCA Dollar Cost Average/Stacking Sats at predetermined times
- 6) Halving Supply Event every 4 years and the cycle of All Time Highs and All Time Lows.
- 7) The Macro Economic environment, having a plan and sticking to it

There is a rationale for investing a percentage of your overall cash/fiat position into Bitcoin when looking through the lens of geopolitical, economic and financial uncertainty. This may be one of the only ways of preserving and growing your wealth. You can then gradually reduce this percentage over a certain number of years by diversifying the gains back into either cash/fiat, property or other assets. This is while always keeping 1% invested in Bitcoin as an insurance policy against geopolitical risks and a hedge against inflation.

Imagine 20 years ago, who would have predicted COVID 19 and even the development of Bitcoin. So projecting forward, there is likely to be economic, financial and political turbulence which manifests itself in the form of inflation and other unknown unknowns. As a hedge against uncertainty and inflation, Bitcoin may be just the thing that is needed.

So, be bold, go forward and come to your own conclusions. Thank you for reading this book. I hope you gained a few insights. It's

possible you may look back in the future and say "I bought Bitcoin, I thank myself I did".

FURTHER READING/LINKS

For an up to date list, please see the website accompanying this book:

BOOKS:

Bitcoin Billionaires: A True Story of Genius, Betrayal and Redemption. By Ben Mezrich

Bitcoin: The Future of Money? By Dominic Frisby

Cryptonomicon. By Neal Stephenson

Digital Gold: The Untold Story of Bitcoin. By Nathaniel Popper

Mastering Bitcoin: Programming the Open Blockchain. By Andreas Antonopoulos

Programming Bitcoin: Learn How to Program Bitcoin from Scratch. By Jimmy Song

The Bitcoin Standard: The Decentralized Alternative to Central Banking. By Saifedean Ammous

WEBSITES:

Anchorage Digital

https://www.anchorage.com/

Andreas M. Antonopoulos

https://aantonop.com/

Bitcoin.org

https://bitcoin.org/

Bitcoin Improvement Proposal (BIP)

https://github.com/bitcoin/bips

Bitcoin Memes

https://www.reddit.com/r/bitcoinmemes/

https://twitter.com/bitcoinmemehub

https://twitter.com/MemeingBitcoin

Bitcoin Talk Forum

https://Bitcointalk.org/

BuyBitcoinworldwide (Wallabit Media LLC)

https://buybitcoinworldwide.com/treasuries/

https://buybitcoinworldwide.com/halving/

https://buybitcoinworldwide.com/stats/

Breadcrumbs

https://www.breadcrumbs.app/ Bruce Schneier https://www.schneier.com/ Cambridge Energy Usage of Bitcoin https://ccaf.io/cbeci/index Chainalysis https://www.chainalysis.com/ Clarke Moody Dash Board (scroll left and right to show all statistics) https://Bitcoin.clarkmoody.com/dashboard/ Coin Center https://www.coincenter.org/ Coindesk https://www.coindesk.com/tech/2021/12/07/coindesk-most-inf luential-2021/

Decentrader YouTube Channel

https://www.youtube.com/c/Decentrader/videos

Elliptic

https://www.elliptic.co/

Fireblocks

https://www.fireblocks.com/

Glacier Protocol

https://glacierprotocol.org/

Glassnode YouTube Channel

https://www.youtube.com/glassnode

Google Finance

https://www.google.com/finance/quote/BTC-USD

https://www.google.com/finance/quote/BTC-GBP

History of Physical Bitcoin Attacks (Jameson Lopp)

https://github.com/jlopp/physical-bitcoin-attacks/blob/master/README.md

Jameson Lopp

https://www.lopp.net/bitcoin-information.html

https://www.lopp.net/bitcoin-information/security.html

https://www.lopp.net/bitcoin-information/getting-started.html

LookintoBitcoin Charts

https://www.lookintobitcoin.com/charts

LookintoBitcoin YouTube Channel

https://www.youtube.com/channel/UCWdRpsNKyoFeMROP T3KXygA/videos

Michael Saylor

https://www.michael.com/en/bitcoin

Nakamoto Institute

https://nakamotoinstitute.org/

https://satoshi.nakamotoinstitute.org/quotes/

Reddit Bitcoin

https://www.reddit.com/r/bitcoin/

River Financial

 $\frac{\text{https://river.com/learn/what-is-the-byzantine-generals-problem}}{/}$

Stack Exchange Bitcoin

https://bitcoin.stackexchange.com/

TradingView

https://www.tradingview.com/chart/

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GLOSSARY

ATH

All Time High

ATL

All Time Low

Bitcoin

A decentralised digital currency that can be transferred on the peer-to-peer bitcoin network transactions are verified by network nodes through cryptography and recorded in a public distributed ledger called a blockchain.

Block

A record in the block chain that contains and confirms many waiting transactions approximately every 10 minutes.

BTC

A ticker code for Bitcoin.

Byzantine Generals Problem

Describes the difficulty decentralised systems have in agreeing on a single truth. Bitcoin uses a Proof-of-Work mechanism and a blockchain to solve the Byzantine Generals Problem.

CBDC

Central Bank Digital Currency.

Central Bank

A national bank that provides financial and banking services for its country's government and commercial banking system, as well as implementing the government's monetary policy and issuing currency.

Cold Storage

Keeping your bitcoin completely offline.

Deflation

Reduction of the general level of prices in an economy.

Dollar Cost Averaging (DCA)

Investing the same amount of money at regular intervals over a certain period of time, regardless of price. See also Staking Sats.

Federal Reserve (FED)

Is the central banking system of the United States of America.

Fiat money

Type of currency not backed by a commodity such as gold or silver. Governments issue Fiat money to be legal tender.

Halving

Every 210,000 blocks, or every four years, the block reward given to Bitcoin miners is halved.

Hardware Wallet

Securely keep private keys in offline or cold storage.

HODL

Hold On for Dear Life refers to not selling, even during strong market volatility and poor market performance.

Hot Storage

Are web-based wallets, mobile wallets, and desktop wallets.

Inflation

The rate of increase in prices over a given period of time.

Interest rates

The proportion of a loan that is charged as interest to the borrower.

Logarithmic View

A way of displaying numerical data over a very wide range of values in a compact way. The largest numbers in the data are hundreds or even thousands of times larger than the smallest numbers.

Mining

The process of creating new bitcoins by solving extremely complicated maths problems that verify transactions in the currency.

Recovery Phrase

A human-readable form of a wallet's private key (see Seed Phrase).

Satoshi Nakamoto

Satoshi Nakamoto is the name used by the presumed pseudonymous person or persons who developed bitcoin. Suggested real life people include Hal Finney, Dorian Nakamoto, Nick Szabo and even Adam Back.

Seed Phrase

A human-readable form of a wallet's private key (see Recovery Phrase).

Software Wallet

A form of cryptocurrency wallet that's based on software.

Stacking Sats

Investing the same amount of money at regular intervals over a certain period of time, regardless of price. See also Dollar Cost Averaging (DCA).

Supply and Demand

As the price increases, supply rises while demand declines. As the price drops supply constricts while demand grows.

XBT

A ticker code for Bitcoin.

RECOMMENDED WEBSITES/PRODUCTS

For an up to date list, please see the website accompanying this book.

https://www.bbcdsatoshi.com

BITCOIN ONLY EXCHANGE:

Swan Bitcoin

https://www.swanbitcoin.com/

EXCHANGES:

Bitstamp

https://www.bitstamp.net/

Coinbase

https://www.coinbase.com/

Gemini

https://www.gemini.com/

Kraken

https://www.kraken.com/

HARDWARE WALLETS:

Ledger Nano S

https://www.ledger.com/

Ledger Nano X

https://www.ledger.com/

Trezor

https://trezor.io/

WEBSITES/SOFTWARE/SERVICES:

Bitcoin.org

https://bitcoin.org

Blockchain Explorer

https://www.blockchain.com/explorer

Blockchair

https://blockchair.com/bitcoin

Buy Bitcoins Worldwide

https://buybitcoinworldwide.com/stats/

Clark Moody Bitcoin Dashboard

https://Bitcoin.clarkmoody.com/dashboard/

DecentTrader

https://www.decentrader.com/

EFF

https://www.eff.org/

Glassnode

https://studio.glassnode.com/metrics

LookInToBitcoin

https://www.lookintobitcoin.com/subscribe/

Privacy Badger

https://privacybadger.org/

BOOKS:

Bitcoin Billionaires: A True Story of Genius, Betrayal and Redemption. By Ben Mezrich

Bitcoin: The Future of Money? By Dominic Frisby

Cryptonomicon. By Neal Stephenson

Digital Gold: The Untold Story of Bitcoin. By Nathaniel Popper

Mastering Bitcoin: Programming the Open Blockchain. By Andreas Antonopoulos

Programming Bitcoin: Learn How to Program Bitcoin from Scratch. By Jimmy Song

The Bitcoin Standard: The Decentralized Alternative to Central Banking. By Saifedean Ammous

NEWS/MAGAZINES:

Bitcoin Magazine

https://bitcoinmagazine.com/

Coindesk

https://www.coindesk.com/

Decrypt

https://decrypt.co/

MEDIA:

What Bitcoin Did (Podcast)

https://www.whatbitcoindid.com/

https://www.youtube.com/c/WhatBitcoinDidPodcast/videos

OTHER:

Anchorage Digital

https://www.anchorage.com/

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BitPay

https://bitpay.com/

Breadcrumbs

https://www.breadcrumbs.app/

BTCPay Server

https://btcpayserver.org/

CASA https://keys.casa/ Chainalysis https://www.chainalysis.com/ Cryptosteel https://cryptosteel.com/ Elliptic https://www.elliptic.co/ Fidelity Digital Assets https://www.fidelitydigitalassets.com/ Fireblocks https://www.fireblocks.com/ PayPal https://www.paypal.com TradingView

https://www.tradingview.com/

RECOMMENDED PEOPLE TO FOLLOW

For an up to date list, please see the website accompanying this book:

https://www.bbcdsatoshi.com

Adam Back

https://blockstream.com/

http://www.cypherspace.org/adam/

Amy Castor

https://www.patreon.com/amycastor

https://amycastor.com/

Andreas Antonop

https://mastodon.cloud/@aantonop

https://aantonop.com/

Pierre Rochard

https://www.linkedin.com/in/pierrerochard/

https://www.riotblockchain.com/

Charles Edwards

https://capriole.com/

Clark Moody

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https://bitcoin.clarkmoody.com/posts/bitcoin-interplanetary-frontier

Dan Held

https://www.theheldreport.com/

https://www.trustmachines.co/

Dave The Wave

https://www.davthewave.com/

https://davethewave.substack.com/

Filb Filb

https://www.decentrader.com/

Harold Christopher Burger

https://hcburger.com/blog/

Jack Dorsey

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Jameson Lopp

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Michael Saylor

https://www.microstrategy.com/

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Philip Swift

https://www.lookintobitcoin.com/

Saifedean Ammous

https://saifedean.com/

RECOMMENDED NEWSLETTERS

For an up to date list, please see the website accompanying this book:

https://www.bbcdsatoshi.com

Newsletters via email:

Ark Invest

https://ark-invest.com/newsletters/

Arcane Research

https://arcane.no/research

https://theweeklyupdate.substack.com/

Block

https://www.theblockcrypto.com/

https://www.theblockcrypto.com/newsletter-signup

Bloomberg Crypto

https://www.bloomberg.com/cryptocurrencies

Coinbase.com (Coinbase Bytes)

https://www.coinbase.com/bytes

CoinMarketCap.com

https://coinmarketcap.com/newsletter/

Delphidigital.io

https://delphidigital.io/insights

Glassnode

https://insights.glassnode.com/tag/newsletter/

LookInToBitcoin

https://www.lookintobitcoin.com/subscribe/

QUICK QUIZ

How much can you remember?
1) There will only be Million Bitcoins.
2) As of 2022, approximately% of all Bitcoins have been mined.
3) Approximately every minutes a block is mined.
4) Every years the Bitcoin supply is halved.
5) One Bitcoin is made up of Million Satoshi's (Sats)
6) Who created Bitcoin?
7) What does HODL mean?
8) What does Stacking Sats mean?
9) What is OPSEC?
10) What are the benefits of a hardware wallet, compared to a software wallet?

ARTIFICIAL INTELLIGENCE (AI) QUESTION AND ANSWER ABOUT BITCOIN

Here is some remarkable output from ChatGPT from OpenAI:

Question:

Why should or shouldn't someone invest in Bitcoin?

Answer:

Bitcoin has been one of the most talked-about financial phenomena in recent years. Since its inception in 2009, it has attracted the attention of investors and speculators alike, with some seeing it as a potential game-changer for the financial industry and others viewing it as a high-risk gamble. In this essay, I will explore the arguments for and against investing in Bitcoin, and ultimately make a recommendation on whether or not it is a wise investment.

One of the biggest reasons to invest in Bitcoin is the potential for high returns. Because it is a relatively new and relatively unregulated asset class, it has the potential to generate significant returns

for investors who are able to get in early and ride the wave of adoption. Unlike traditional investments, which are subject to the fluctuations of the stock market, Bitcoin is a decentralized and global currency that is not tied to any one country or economy. This means that it has the potential to be a more stable and reliable investment, especially in times of economic uncertainty.

However, there are also several compelling arguments against investing in Bitcoin. The most obvious is the fact that it is a highly volatile asset, with prices that can fluctuate wildly in a short period of time. This volatility can be both a blessing and a curse for investors, as it can lead to significant gains, but also substantial losses. In addition, the lack of regulation in the Bitcoin market can also be seen as a drawback, as it makes it vulnerable to manipulation and fraud.

Another key argument against investing in Bitcoin is the fact that it is still not widely accepted as a legitimate form of currency. While it has gained some traction in recent years, it is still not as widely used as traditional currencies like the US dollar or the euro. This means that it can be difficult to use Bitcoin for everyday transactions, and it may not be a practical option for those who need a stable and reliable means of payment.

Despite these drawbacks, however, many experts believe that Bitcoin has the potential to become a major player in the global financial market. Some argue that its decentralized and global nature makes it well-suited to the increasingly interconnected world of finance, and that it could become a valuable tool for investors and businesses alike. Furthermore, the rise of other cryptocurrencies and blockchain technology has led some to believe that the future

of finance may lie in digital currencies, and that investing in Bitcoin now could be a smart move.

In conclusion, the decision to invest in Bitcoin is ultimately a personal one that depends on individual risk tolerance and investment goals. While it does have the potential for high returns, it is also a highly volatile and largely unregulated asset. For those who are willing to take on the risks and have a long-term investment horizon, Bitcoin may be a worthwhile consideration. However, for those who are looking for a more stable and reliable investment, it may be best to avoid Bitcoin and opt for more traditional options.

Note: The above answer was written and created by ChatGPT an artificial intelligence (AI) piece of software in response to a question about Bitcoin.

What does BBCD Satoshi mean?

The original blog was called **B**itcoin, **B**lockchain, **C**ryptocurrency and **D**igital Assets (hence BBCD). So I took **BBCD** and added **Satoshi** as a homage to Satoshi Nakamoto for creating Bitcoin and for writing the Bitcoin White Paper.

You can find the original blog posts here and find the Bitcoin White Paper here

Have fun and enjoy your Bitcoin journey!

@BBCD Satoshi

SELECTED QUOTES FROM SATOSHI NAKAMOTO

"If you don't believe it or don't get it, I don't have the time to try to convince you, sorry."

"Lost coins only make everyone else's coins worth slightly more. Think of it as a donation to everyone."

"A lot of people automatically dismiss e-currency as a lost cause because of all the companies that failed since the 1990's. I hope it's obvious it was only the centrally controlled nature of those systems that doomed them. I think this is the first time we're trying a decentralized, non-trust-based system."

"As computers get faster and the total computing power applied to creating Bitcoins increases, the difficulty increases proportionally to keep the total new production constant. Thus, it is known in advance how many new Bitcoins will be created every year in the future. Coins have to get initially distributed somehow, and a constant rate seems like the best formula."

"I've been working on a new electronic cash system that's fully peer-to-peer, with no trusted third party."

"How does everyone feel about the B symbol with the two lines through the outside? Can we live with that as our logo?"

"Bitcoin addresses you generate are kept forever. A bitcoin address must be kept to show ownership of anything sent to it. If you were able to delete a bitcoin address and someone sent to it, the money would be lost. They're only about 500 bytes."

"The fact that new coins are produced means the money supply increases by a planned amount, but this does not necessarily result in inflation. If the supply of money increases at the same rate that the number of people using it increases, prices remain stable. If it does not increase as fast as demand, there will be deflation and early holders of money will see its value increase. Coins have to get initially distributed somehow, and a constant rate seems like the best formula."

"Total circulation will be 21,000,000 coins. It'll be distributed to network nodes when they make blocks, with the amount cut in half every 4 years."

"It might make sense just to get some in case it catches on. If enough people think the same way, that becomes a self fulfilling prophecy. Once it gets bootstrapped, there are so many applications if you could effortlessly pay a few cents to a website as easily as dropping coins in a vending machine."

"In this sense, it's more typical of a precious metal. Instead of the supply changing to keep the value the same, the supply is predetermined and the value changes. As the number of users grows, the value per coin increases. It has the potential for a positive feedback loop; as users increase, the value goes up, which could attract more users to take advantage of the increasing value."

"Bitcoins have no dividend or potential future dividend, therefore not like a stock. More like a collectible or commodity."

"The root problem with conventional currency is all the trust that's required to make it work. The central bank must be trusted not to debase the currency, but the history of fiat currencies is full of breaches of that trust."

"As a thought experiment, imagine there was a base metal as scarce as gold but with the following properties:

- boring grey in colour
- not a good conductor of electricity
- not particularly strong, but not ductile or easily malleable either
- not useful for any practical or ornamental purpose

and one special, magical property:

- can be transported over a communications channel

If it somehow acquired any value at all for whatever reason, then anyone wanting to transfer wealth over a long distance could buy some, transmit it, and have the recipient sell it.

Maybe it could get an initial value circularly as you've suggested, by people foreseeing its potential usefulness for exchange. (I would definitely want some) Maybe collectors, any random reason could spark it.

I think the traditional qualifications for money were written with the assumption that there are so many competing objects in the world that are scarce, an object with the automatic bootstrap of intrinsic

value will surely win out over those without intrinsic value. But if there were nothing in the world with intrinsic value that could be used as money, only scarce but no intrinsic value, I think people would still take up something. (I'm using the word scarce here to only mean limited potential supply)"

REAR

Bitcoin is unique. Bitcoin is a chance. Now maybe the window of opportunity.

"Buy Bitcoin, You'll Thank Yourself In The Future" is a book intended for anyone considering buying Bitcoin as a strategic investment to hold on to for at least 10 years.

The book looks at opinions for and against buying Bitcoin. These include people and organisations such as:

- Michael Saylor, Elon Musk, Andreas Antonopoulos, Bill Miller, Fidelity, Blackrock, and the Winklevoss Twins.
- Jamie Dimon, Warren Buffet, Nassim Nicholas Taleb, Bruce Schneier, Jemima Kelly, and Amy Castor.

Subjects are then looked at including:

- Technical analysis, graphs, statistics, log/logarithmic view, metrics, theories, strategy, being a HODLer, question of money, risk management and importantly the opposite, why you shouldn't invest in Bitcoin.
- MACD (Moving Average Convergence/Divergence),
 RSI (Relative Strength Index) and Fibonacci Levels

(Fibs).

Bitcoin specific niche statistics and models are looked at including:

• The 200-Week Moving Average Heatmap, The Puell Multiple, Stock-to-Flow Model, Bitcoin Logarithmic Growth Curves, Long-Term Power-Law Corridor of Growth (Power Law), Clark Moody's Dashboard and the Bitcoin Halving Countdown.

"Bitcoins have no dividend or potential future dividend, therefore not like a stock. More like a collectible or commodity." **Satoshi Nakamoto**

It's possible you may look back in the future and say "I bought Bitcoin, I thank myself I did".