

Cryptocurrency • What to Know as a Long-Term Investor • January 25, 2022

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Introduction

Allodium Speakers



David Bromelkamp AIF®, BCFTM

President & CEO



Eric Hutchens CFP®, AIF®

Chief Investment
Officer & Senior
Investment
Consultant



Derek
Van Calligan
CFP®, AIF®

Investment
Consultant &
Responsible
Investing Specialist



Saul Baumann CFP®, AIF®

Investment Consultant

Today we'll discuss...

What is Bitcoin?
What is cryptocurrency?

What is blockchain?

Why should we care?

What should we do?



Long-Term Investment Success

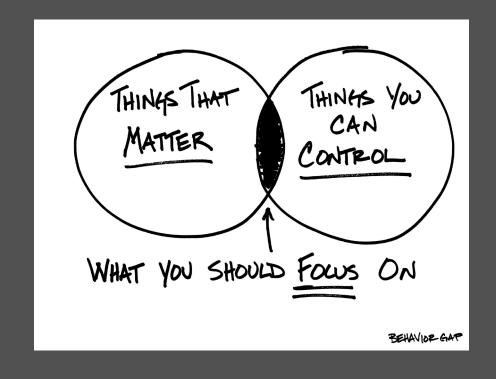
Long-Term Investment Success

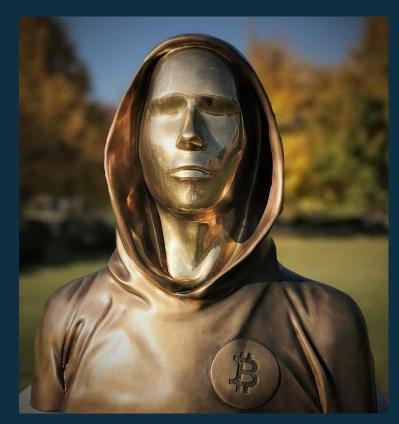
Our goal for our clients is long-term investment success and we'll keep that thought in mind as we discuss cryptocurrencies.

Long-Term Investment Success

What do we mean by a "long-term investor"?

- Investing towards goals (retirement, education, etc.)
- Diversification / reducing unnecessary risks
- Evidence-based
- Focus on what you can control (vs. FOMO)





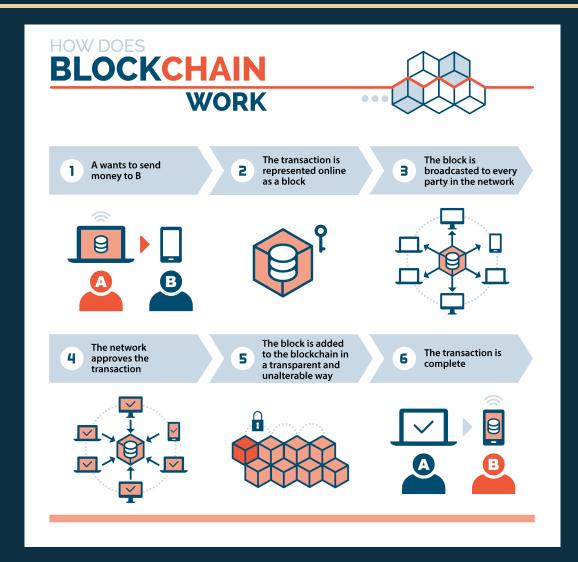
Source: Elekes Andor, <u>Satoshi Nakamoto</u>, <u>https://commons.wikimedia.org/wiki/File:Satoshi</u> <u>Nakamoto.jpg</u>, <u>Creative Commons Attribution-Share</u> Alike 4.0

Who is Satoshi Nakamoto?³

- Bitcoin was created by an individual(s) using the pseudonym Satoshi Nakamoto in 2009.
- Was claimed to be a man in his 30s living in Japan — it is a mystery.
- Bitcoin source code was released 2009.
 This created the first cryptocurrency and blockchain technology.

- Invention of Bitcoin and blockchain technology
- Challenges
 - 1. Digital money not duplicated or spent more than once.
 - 2. Not reliant on one individual, company, or government.
 - 3. How to incentivize for maintaining the ledger?⁴





- Shared ledger to track every transaction.
- "Trustless" system
 vs. trust-based
 model of traditional
 banking.



Source: Chris Huisman, File: Hut 8 Medicine Hat box 1. https://en.wikipedia.org/wiki/File:Hut_8_Medicine_Hat_box_1.jpg, Creative Commons Attribution-Share Alike 4.0

- Bitcoins are created through "mining."
 Mining: Nodes solve problems and are rewarded with Bitcoin.
- The total number of Bitcoins that will be created is limited to 21 million.⁵
- The number of Bitcoins a node gets when it solves a problem decreases by half every four years, until all Bitcoins are distributed in 2140 according to a predetermined schedule.
- In 2009, the reward for each block mined was 50 Bitcoins. Now it is 6.25.⁶
- 1/18/22 value of 6.25 Bitcoin = \$258,701.38.⁷



How to obtain and trade cryptocurrencies

- Purchase already mined Bitcoin on Cryptocurrency Exchanges.
- Beware of high fees.

How to store and protect cryptocurrency

- Uses password comprised of 12 unique words (private keys).
- Digital wallets
 - 1. Exchange wallets
 - 2. Application wallets on computer or smartphone
 - 3. Hardware wallets private keys stay in the device and are not given out. Can be physically disconnected from internet.



Exposure to cryptocurrencies in brokerage accounts

- Can't own directly
- Investments with exposure
 - 1. Coin trusts
 - 2. Futures contracts
- Schwab donor-advised funds



First known transaction of making a purchase with Bitcoin on May 18th, 2010:

"I'll pay 10,000 bitcoins for a couple of pizzas.. like maybe 2 large ones so I have some left over for the next day. I like having left over pizza to nibble on later...

Thanks, Laszlo"



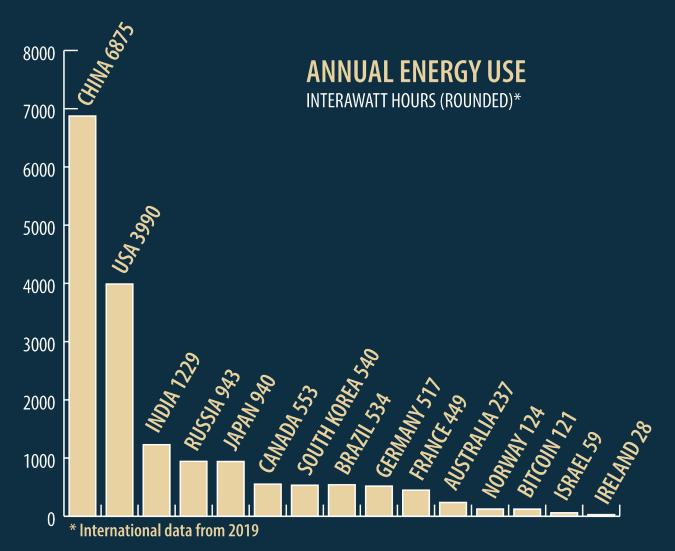
Using Bitcoin's value on 1/18/2022, those pizzas are worth about \$414,000,000 today.

One Bitcoin = \$41,392.22 on 1/18/22 https://coinmarketcap.com/

Bitcoin

- First and largest cryptocurrency
- Market cap of \$700 billion⁹
- Store of value
- "Proof of work" structure





A single Bitcoin transaction uses the same amount of power that the average American household consumes in a month!¹⁰

Data comprised from Cambridge Bitcoin Electricity Consumption Index¹¹ and U.S. Energy Information Administration.¹²

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Large variety of cryptocurrency options.

More than 9,000 different cryptocurrencies exist, with new ones being created all the time.⁸



"Altcoins"

- Ethereum market cap close to half of Bitcoin's¹³
 - 1. Smart Contracts
- Cardano, Solana, Ripple, etc.
 - "Proof of stake" = scalable, efficient
 - 2. Ethereum 2.0





"Memecoins"

- Speculation run wild!
- Dogecoin,Shiba Inu
- Squidgame coin¹⁴



"Stablecoins"

- "Trustless" financial system. People can store and transfer value without being subject to bank failure risk or cost of a middleman.
- Direct deposits of stimulus, tracing transactions, etc.
- Ability to monitor and change monetary supply much quicker.
- Government and corporate trials.



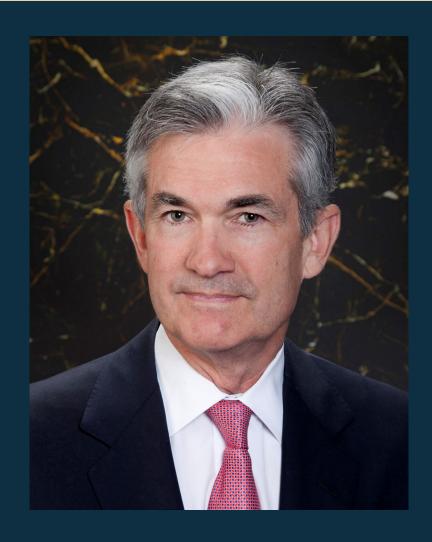




"Stablecoins"

- Corporations
 - Facebook's "Diem"
- Governments
 - China's Digital Yuan¹⁵





"Stablecoins can certainly be a useful, efficient consumer serving part of the financial system if they're properly regulated. And right now, they aren't." ¹⁶

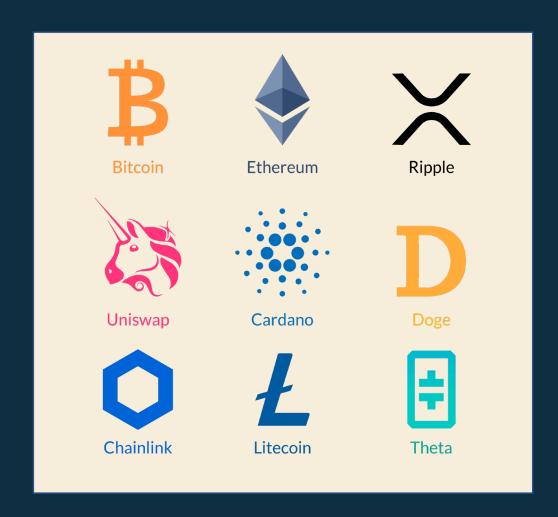
Federal Reserve Chairman Jerome Powell, 12/15/2021



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Federal Reserve_0001-0003 HDR.jpg. https://creativecommons.org/ licenses/by-sa/3.0/de/deed.en

"While a CBDC could provide a safe, digital payment option for households and businesses as the payments system continues to evolve and may result in faster payment options between countries, there may also be downsides." ¹⁷

Federal Reserve Report 1/20/2022



Deciphering the Alphabet Soup of other Blockchain Initiatives...

- DeFi
- NFT

What is "DeFi" (Decentralized Finance)¹⁸?

- Smart contract applications without the need for financial intermediaries like a bank.
 - 1. Efficient and fast (no paperwork!)
 - 2. Eliminates counterparty risk
 - 3. Equal opportunity



DeFi Lending example

- Peer-to-peer lending without a bank middleman.
- Interest rates adjust automatically by code based on supply and demand.



What is an "NFT"?

- Non-Fungible Token
 - 1. "Non-Fungible" = unique, verifiable¹⁹
 - 2. Examples = art, real estate, property rights
 - 3. OpenSea Marketplace²⁰⁻²¹



Price risk — most cryptocurrencies are volatile

- Potential for large losses in a short timeframe.
- Some exchanges allow for leverage which can greatly magnify this risk.
- 24-hour trading cycle.





Other risks

- Loss of password or security
 phrase = permanent loss.²²
- Security breaches.²³
- Large scale loss to theft/hackers.²⁴
- Ripe for fraud and scams.²⁵
- Other risks not yet identified.

Challenges

- Scalability challenges

 (high energy costs for Bitcoin usage).
- "Gas" fees and exchange fees.



Cryptocurrency Risks and Challenges

More challenges

- Abuse by criminals
- Potential government intervention or regulation
- Tax reporting and enforcement
- Big brother vs. privacy



Investment vs. speculation²⁶

- Odds favor long-term, evidence-based investing as a path to success.
- Investing in a single cryptocurrency, similar to investing in a single micro-cap stock.
- Speculation may hit a home-run or may strike-out.
- Warren Buffett "You don't have to swing at every pitch."

"Where would cryptocurrency fit in my portfolio?"

- In its current stage, likely a speculation rather than an investment.
- Go into it with your eyes wide open. Are your expectations realistic?



Bucket strategy / 4th bucket

- Segregate it from your long-term diversified portfolio.
- Limit it to a small amount of your net worth where a total loss would not derail your financial plan (1-2% of your net worth, for example).

GROWTH ILLIOUID & HIGHER **RISK ASPIRATIONAL ASSETS Current Amount:** _% of portfolio **ESTIMATED** 10 Years Plus TIME IN YEARS Private equity, **TYPICAL** highly concentrated **HOLDINGS** stock positions, real estate, etc. PURPOSE OF Opportunity for significant growth THE MONEY Take speculative **GOAL** risks to grow my **DESCRIPTION** wealth Illiquid: "I do not LIQUIDITY need this money to DESCRIPTION fund future financial obligations." TIME HORIZON Long-term

We are watching. There will continue to be advances in cryptocurrencies and DeFi.

There may potentially be more investable, lower risk investments in the future.



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Q & A

If you would like handouts about cryptocurrency, contact David Bromelkamp at dbromelkamp@allodium.com

Thank You



Thank You!

- 1. Hicks, C. (September 1, 2020). *The history of Bitcoin*. U.S. News. https://money.usnews.com/investing/articles/the-history-of-bitcoin
- 2. Sephton, C. (December 20, 2021). *How many cryptocurrencies are there?* Currency.com. https://currency.com/how-many-cryptocurrencies-are-there
- 3. Who is Satoshi Nakamoto? Coinbase. https://www.coinbase.com/learn/crypto-basics/who-is-satoshi-nakamoto?from=for-you
- 4. Goldstein, J. (September 8, 2020). *Money: the true story of a made-up thing*. Hachette Books, New York, NY.
- 5. Hayes, A. (January 13, 2022). What happens to bitcoin after all 21 million are mined? Investopedia. https://www.investopedia.com/tech/what-happens-bitcoin-after-21-million-mined/

- 6. Conway, L. (November 29, 2021). *Bitcoin halving*. Investopedia. https://www.investopedia.com/bitcoin-halving-4843769#:~:text=After% 20every%20210%2C000%20blocks%20mined,bitcoins%20are%20released%20into%20c irculation.
- 7. Today's cryptocurrency prices by market cap. Coinmarketcap. https://coinmarketcap.com/
- 8. De Best, R. (January 12, 2022). Number of cryptocurrencies worldwide from 2013 to January 2022. Statista. https://www.statista.com/statistics/863917/number-crypto-coins-tokens/
- 9. Today's cryptocurrency prices by market cap. Coinmarketcap. https://coinmarketcap.com/

- 10. Gammon, K. (November 18, 2021). *Environmentalists sound alarm at US politicians' embrace of cryptocurrency.* The Guardian. https://www.theguardian.com/
 technology/2021/nov/18/cryptocurrency-bitcoin-environmentalist-alarm-us-politicians
- 11. Cambridge Bitcoin Electricity Consumption Index. https://ccaf.io/cbeci/index
- 12. U.S. Energy Information Administration. https://www.eia.gov/international/data/world
- 13. Today's cryptocurrency prices by market cap. Coinmarketcap. https://coinmarketcap.com/
- 14. Stokel-Walker, C. (November 2, 2021). *How a squid game crypto scam got away with millions*. Wired. https://www.wired.com/story/squid-game-coin-crypto-scam

- 15. Feng, C. & Qu, T. (January 7, 2022). *China woos new digital yuan users in major push ahead of lunar year, winter Olympics*. South China Morning Post. https://www.scmp.com/tech/policy/article/3162595/china-woos-new-digital-yuan-users-major-push-ahead-lunar-new-year
- 16. Yue, F. (December 15, 2021). Fed's Powell says he doesn't see cryptocurrencies as 'financial stability concern.' Market Watch. https://www.marketwatch.com/story/feds-powell-says-he-doesnt-see-cryptocurrencies-as-financial-stability-concern-11639601806
- 17. Marte, J. (January 20, 2022). Fed kicks off debate on issuing its own digital currency with new white paper. Reuters. https://www.reuters.com/business/fed-lays-out-risks-benefits-cbdc-paper-takes-no-policy-stance-2022-01-20/

- 18. Hertig, A. (September 22, 2021). What is DeFi? Coindesk. https://www.coindesk.com/learn/what-is-defi/
- 19. Frank, R. (March 11, 2021). Beeple NFT becomes most expensive ever sold at auction after fetching over \$60 million. CNBC. https://www.cnbc.com/2021/www.cnbc
- 20. Wilhelm, A. (January 5, 2022). *Making sense of OpenSea at a \$13B valuation*. Techcrunch. https://techcrunch.com/2022/01/05/making-sense-of-opensea-at-a-13b-valuation/

- 21. Venugopal, S. (December 10, 2021). *OpenSea held 97% NFT marketplace volume last quarter: ConsenSys Web3 report.* https://ambcrypto.com/opensea-held-97- nft-marketplace-volume-in-last-quarter-consensys-web3-report/
- 22. Onanuga, T. (January 16, 2021). Bitcoin owner whose story went viral after he lost his wallet password says he has 'made peace' with potential \$220 million loss.

 Business Insider. https://www.businessinsider.com/bitcoin-owner-who-lost-password-made-peace-potentially-huge-loss-2021-1
- 23. Phillips, D. (January 3, 2021). *Lost Bitcoin: 3.7 million Bitcoin are probably gone forever.* Decrypt. https://decrypt.co/37171/lost-bitcoin-3-7-million-bitcoin-are-probably-gone-forever

- 24. Collier, K. (December 17, 2021). *Crypto exchanges keep getting hacked, and there's little anyone can do.* NBC News. https://www.nbcnews.com/tech/security/bitcoin-crypto-exchange-hacks-little-anyone-can-do-rcna7870
- 25. Sigalos, M. (January 6, 2022). *Crypto scammers took a record \$14 billion in 2021*. NBC News. https://www.nbcnews.com/tech/security/crypto-scammers-took-record-14-billion-2021-rcna11192
- 26. Nguyen, J. (January 2, 2022). *Investing vs. speculating: what's the difference?* Investopedia. https://www.investopedia.com/ask/answers/09/difference-between-investing-speculating.asp