



Demystifying Bitcoin, Cryptos and Blockchain

30/10/2024

Prepared by:
Kevin Wippermann





Kevin Wippermann

Co-Founder

CTO with 12 years of experience in Finance (Front to Back) and Technology

Investor since early 2017 in Bitcoin and the Cryptocurrency asset class

Co-Wrote a White Paper on blockchain based Digital Inheritance for digital assets

Developed a blockchain based platform to prevent loss of digital assets following life events

Launched a Start Up in the Crypto Valley (Zug) with the largest Swiss Exchange, SIX as an investors and working with the Swiss regulator, FINMA

Coached top executive (C-Suite) of Hedge Funds, Banks and Exchanges across Europe and the Middle East to better understand Bitcoin, the Blockchain technology and Cryptos

Co-Founded CryptoCollege.cc, an educational platform for digital assets.





How often do we
get to learn
about a new
asset class?!

Seminar Agenda

Demystifying Bitcoin, Crypto and the Blockchain

01

Introduction

Why? It was created and it should matter to you

02

Bitcoin and the Blockchain

Origin, how does it work and compares to FIAT currencies

03

The Different Cryptocurrencies

POW, POS, Stablecoins, L1s, DeFi, Dex, NFTs, ENS

04

Geopolitics & Tokenomics

Legal tender, CBDCs, Outlook Models

05

Bitcoin Macro Economics

Analysis of the Bitcoin Public Ledger.

Disclaimer

Introduction to Bitcoin, Crypto & Blockchain

01

This not financial advice

This presentation is for educational purpose only and cannot be considered as financial advice.

02

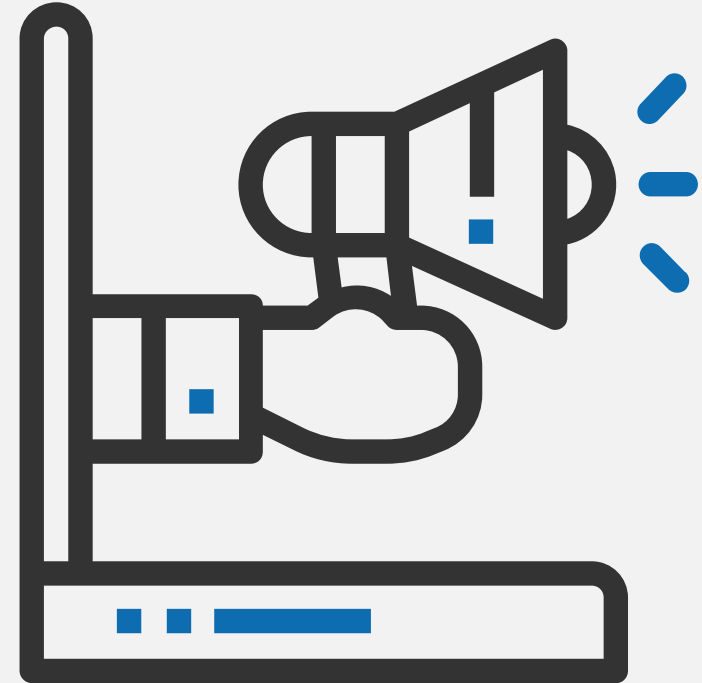
Stays away from the FUD

This presentation aims to be as factual as possible with many sources added and stays away from Fear Uncertainty and Doubt (FUD).

03

Recommends you to DYOR

Before investing in any asset or cryptos, you must Do Your Own researches (DYOR).



Why?

Bitcoin was created and it should matter to you?



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Why?



Unprecedented
FIAT Printing



Central
Control



Loss of buying
power, Inflation



The Global
Financial Crisis

Why it's time to pay attention

Where do we stand in 2024?

Blackrock's CEO – Larry Fink

What is the CEO of Blackrock saying?

I was a skeptic, I studied it and now I see Bitcoin as a legitimate "financial instrument" with unique potential. Bitcoin functions similarly to "digital gold," providing a hedge to investors.

Very Successful ETF

Bitcoin ETF Launched in 2024 in the USA

More than 8 ETFs launched
Current market cap exceeding \$60B
iBIT by itself has more than \$25B
More successful launch than Gold!!
Many other launching globally

A US Election topic

Bitcoin and crypto part of election discussions

Trump took a pro-crypto stance going as far as saying he would make Bitcoin a strategic reserve asset.
Harris is more cautious but is support the development of a comprehensive regulatory framework.

Mr 100

A sovereign fund has been buying 100 BTC every day for months

The fund has now accumulated more than 70,000 Bitcoin or the current equivalent of \$5 billion. It is suspected this is the Qatar Government who is behind.

Bitcoin



The birth of the blockchain technology and the first global cryptocurrency.



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What is Bitcoin

- ✓ “A distributed Peer to Peer electronic cash system”, Satoshi Nakamoto.
- ✓ It’s an open-source software (protocol)!
- ✓ Fully decentralized, it runs on a global network of computers (miners).
- ✓ The Bitcoin network uses a technology called the blockchain to protected its integrity and record all transactions in a decentralized ledger.



21,000,000 Bitcoin Cap

The core code, a part of the protocol, caps the max volume to 21 million.



A hard asset by design

Built as reaction to the 2009 Fin Crisis, Bitcoin is designed to be scares asset.

Bitcoin Key Facts

01

Launched in 2009

Launched by Satoshi Nakamoto in Jan 2009 for \$0.08 Nobody knows who he (or she) is, and this is crucial!

02

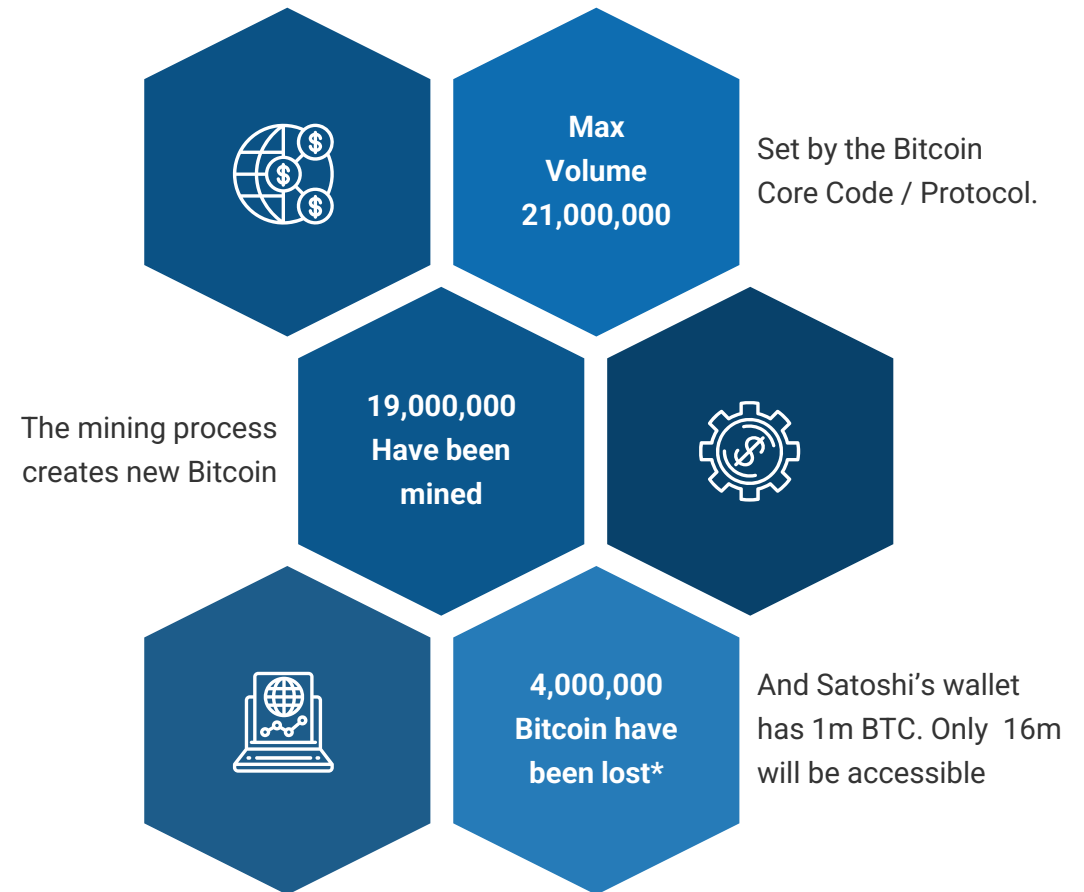
Blockchain Technology

With Bitcoin the blockchain technology and its public decentralized ledger was launched.

03

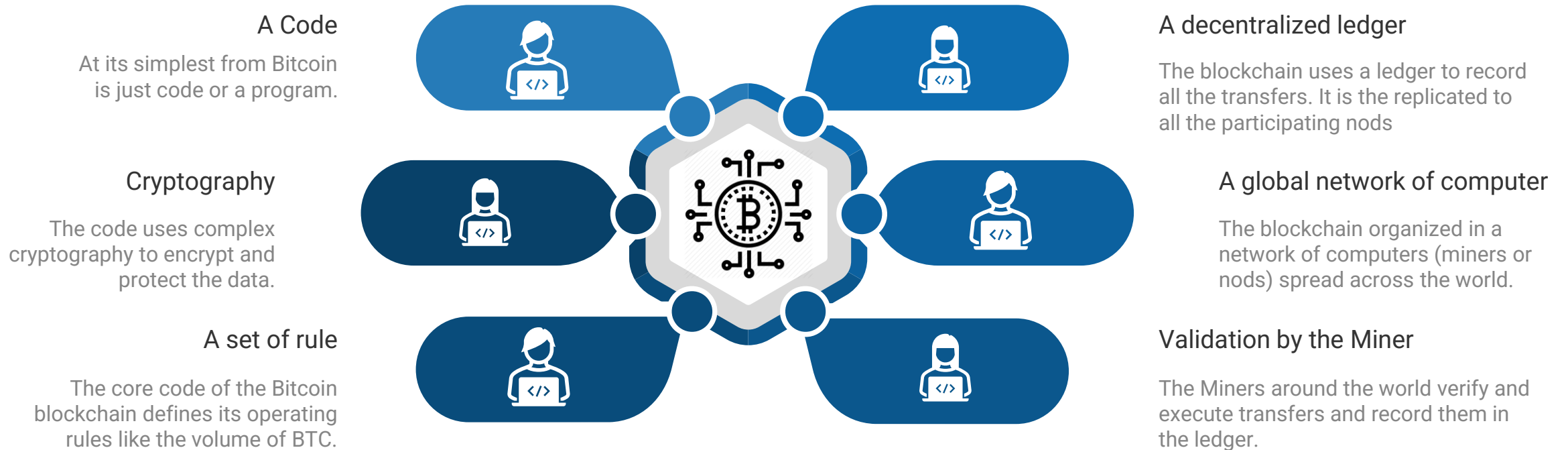
Last Bitcoin in 2140

Halvings of the mining rewards are slowing down the creation of Bitcoins. The last one is expected to be mined in the year 2140.



What is the Bitcoin Blockchain?

The Bitcoin blockchain is global a decentralized network of miners (computers).



Immutable

Decentralized

Permissionless

Unanimous

Anonymous

How does it work?



Alice wants to send Bitcoins to Bob or buy something from Bob with Bitcoins.



Alice uses her private key to sign a transfer to Bob specifying the quantity and address.



Alice's Bitcoin transaction request is bundled with others into a block of transactions.



The block is broadcasted to all the miners active on the Bitcoin Network.



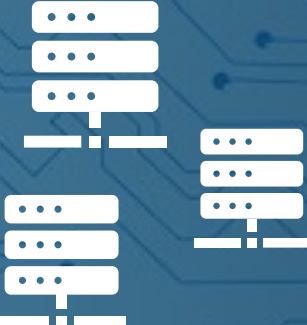
Bob's gets his Bitcoins from Alice in his wallet (or on an exchange)



The transaction is now complete. The block is added to the chain and made immutable.



The first miner who validates the new block get the blockchain reward and the transaction fees

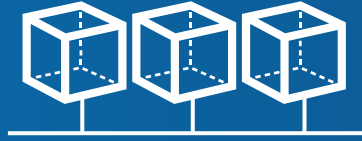


Miners compete to process the transaction.

They compete by solving complex calculation that require a lot of energy.

This is Proof of Work (PoW).





It's called the blockchain because every time a miner validates a block of bitcoin transfers it is added in chronological order to the decentralized public ledger.

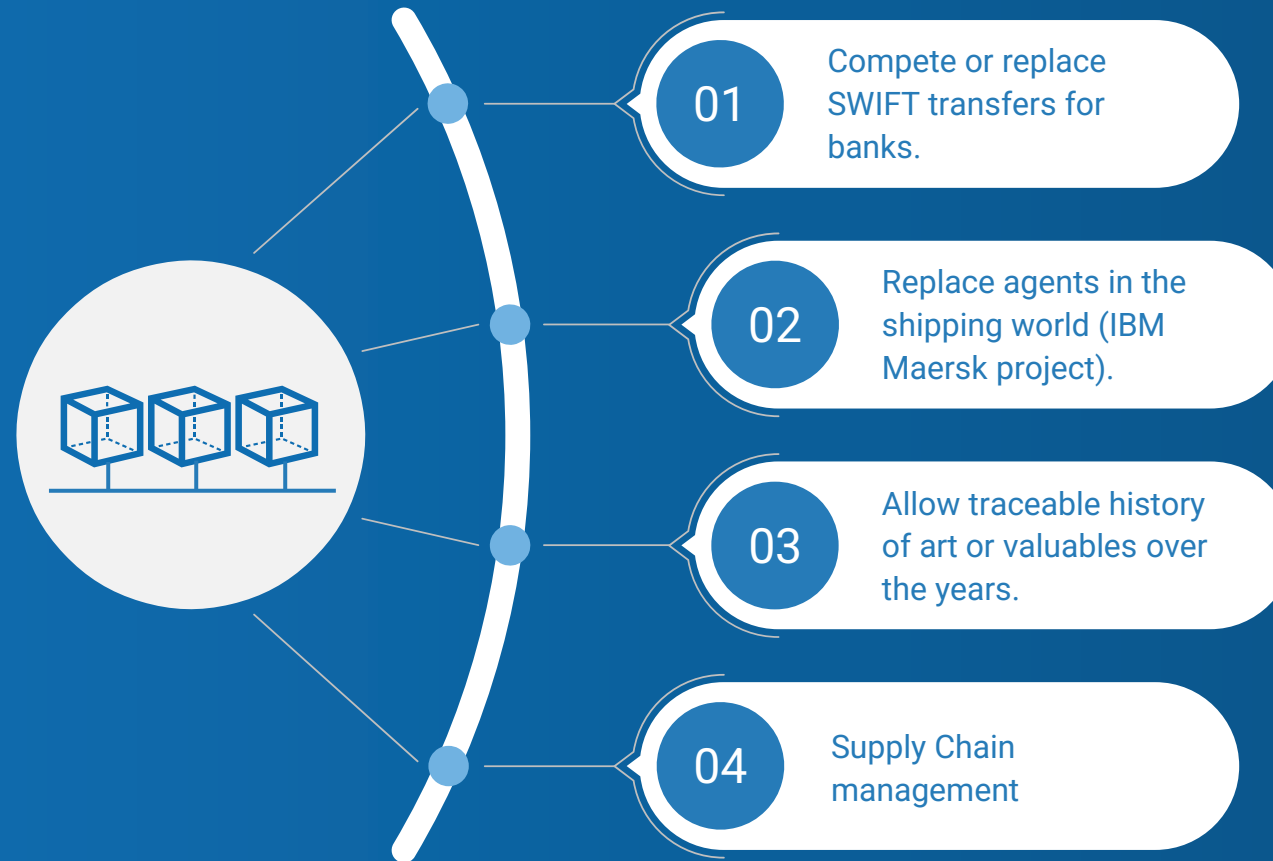
The ledger is then replicated throughout the network and made immutable. The miner is rewarded for its service by both newly issued Bitcoins by the open-source protocol and transfer fees.

The newly issued bitcoin by the protocol to reward the miners are halved every 210,000 block or 4 years. This even it called the "halving" and it causes the famous Bitcoin Cycles.

Once all 21,000,000 Bitcoin will be issued by 2140, miners will be rewarded only by the transfer fees.

Why is the Blockchain so revolutionary?

Any process that requires a third party of trust can be replaced by a blockchain solution.



Bitcoin SWOT Analysis

What makes Bitcoin great and how could it fail?



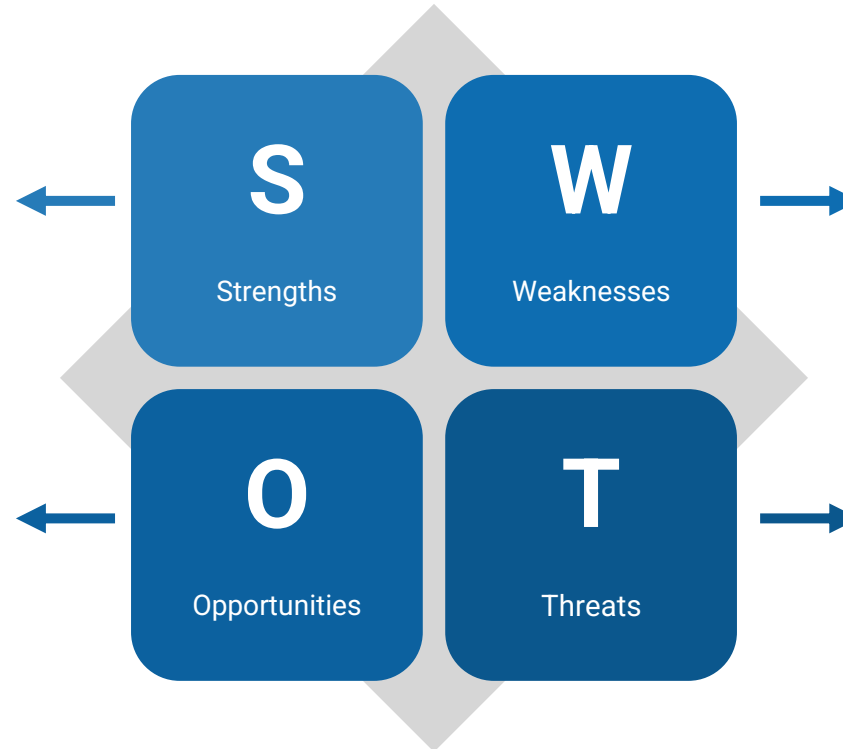
No centralized control, resulting in permissionless and borderless transactions.

Established trust and proven network reliability.

Bitcoin's Value is derived from actual scarcity.

Hedge against inflation and store of value.

Can be stored safely offline and be transferred physically with ease.



Price Volatility



Transaction time and cost due to the scalability issue.

No middleman type of buyer protection when you make a purchase with Bitcoin.

If you lose your hard wallet or forget your password, you permanently lose access to your wealth..

Mass adoption, Rapid User Growth & Institutional Investors.

Solving the scalability problem fast enough.

Create transparency in government budgets and fiscal policy.



Possible Regulations, countries making it illegal to hold.

Quantum computing could technically crack the cryptography one day.

Environmental impact.



Cryptocurrencies

How does Bitcoin and other Cryptocurrencies compare.



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Three Different Cases

It is very important to understand the difference between cryptocurrencies types



Bitcoin in a category of its own

Acts as a store of value with price based solely on offer and demand.

Does not evolve much at all.



Cryptocurrencies offering a service

Cryptos like Ethereum are a mean of payment for the service the Ethereum blockchain offer. Behaves more like stocks of a listed company.



Stablecoins pegged to FIAT currencies

Stable coins like USDC offer easier conversion Crypto <> USD and can be moved via the blockchain

POW Vs POS Cryptos

What is the difference between a Proof of Work and Proof of Stake blockchain?

Proof of Work



Mining Capacity depends on the computational power.



Miner receive block rewards to solve a cryptographic puzzle.



Hackers would need to have a computer that has 51% of all the miners computing power (Hash Rate). Called a 51% attack.

Example of POW blockchain: Bitcoin

Proof of Stake



Validating capacity depends on the stake in the network.



Validators collect a transaction fees based on the volume they have staked.

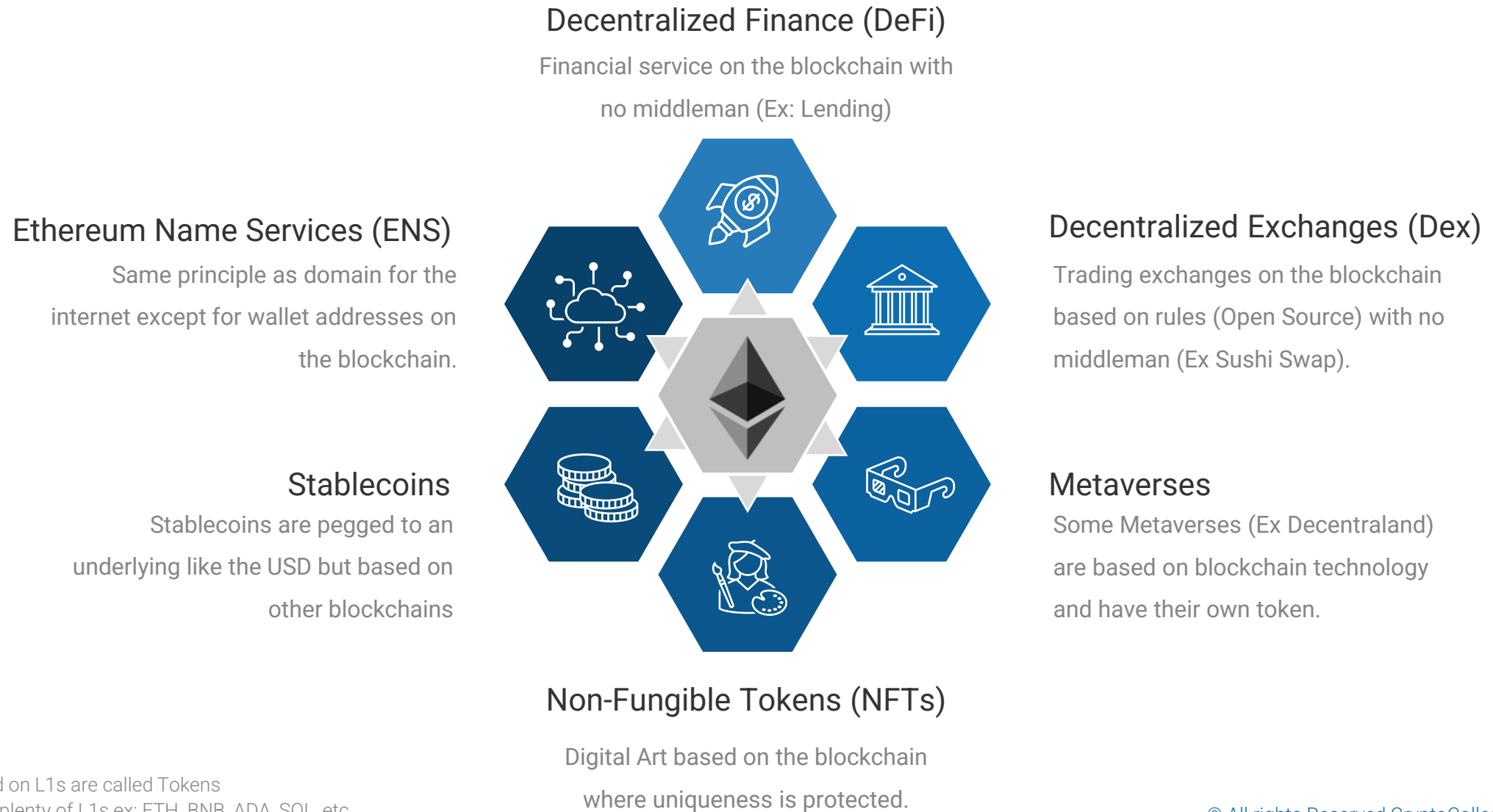


Hackers would need to own 51% of all the cryptos of the blockchain. Making 51% attack almost impossible.

Example of POS blockchain: Ethereum (soon)

Focus on Ethereum and L1s

L1s or Layer Ones often refers to base network of a blockchain on top of which services are being built.



Tip: Coins based on L1s are called Tokens
Tip 2: There are plenty of L1s ex: ETH, BNB, ADA, SOL, etc.

DeFi

When can be done today with Decentralized Finance?

”

DeFi is, for example, staking or lending your
Stablecoins on a Dex!

“

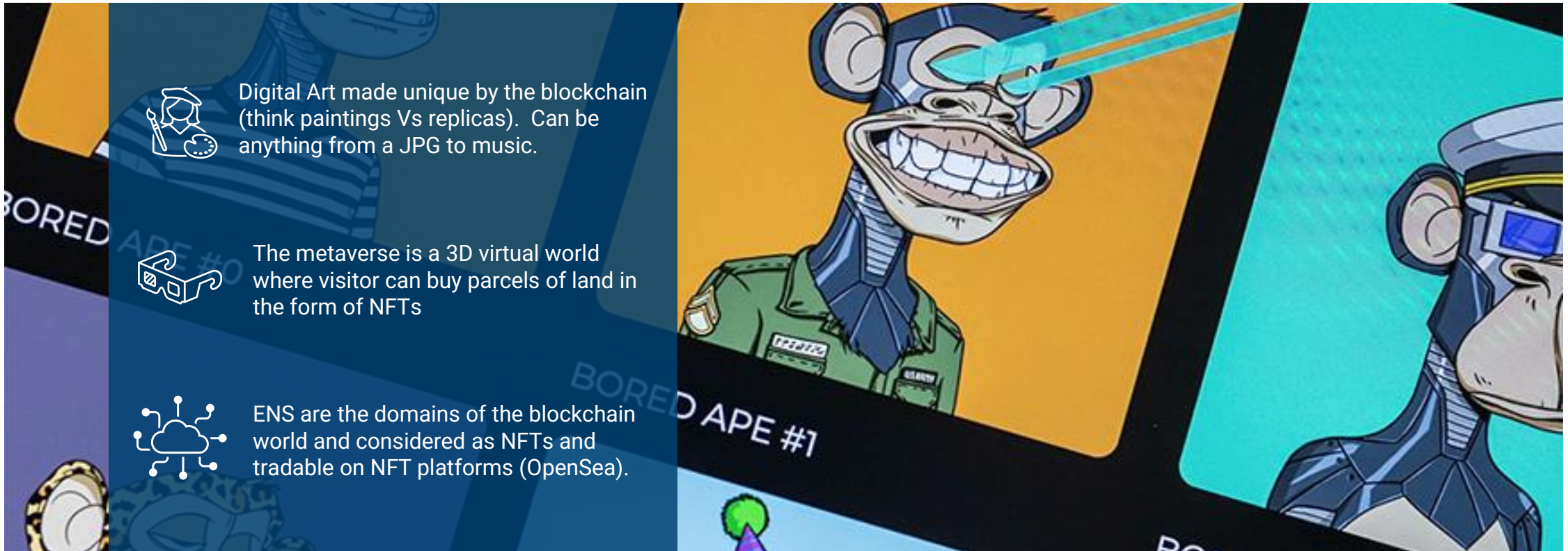
Some key DeFi figures:

Staking can yield around 5 - 10% | More than \$100 billion lock in DeFi



NFTs, ENS & the Metaverse

What is the relationship between the three?



Digital Art made unique by the blockchain (think paintings Vs replicas). Can be anything from a JPG to music.



The metaverse is a 3D virtual world where visitor can buy parcels of land in the form of NFTs



ENS are the domains of the blockchain world and considered as NFTs and tradable on NFT platforms (OpenSea).

The foundations for Web 3.0

From web 1.0 to web 3.0



Web 1.0

Information for the internaut

Basic webpages

Html

eCommerce

Java & JavaScript

From 1990 to 2005



Web 2.0

Information from the internaut

Social Medias

Internaut data monetization

User generated content

Mobile Access

Global high-speed internet

Apps

From 2006 – Present Day



Web 3.0

Information in control of the internaut

Users monetize their data

VR & AR

Permissionless Blockchain

Artificial Intelligence

NFTs

Dapps

In Construction

Geopolitics & Tokenomics

What make the value of a Crypto and what is the asset class outlook.



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The 1984 Dystopia

China and CBDCs

The dangers of Central Bank Digital Currencies



01

China's Social Credit System

China's social system add or removes points to citizens that miss behaves. Less points means less rights ex: travel or access to mortgages.

02

Use of AI for infraction tracking

Speed or jaywalk and AI will automatically recognize you and issue a fine or limit your privileges.

03

CBDCs

China has launched the eYuan that allows the government to track all transactions and take money out of people accounts at any time.

04

Bitcoin, the anti CBDC

China is trying to ban Bitcoin and Bitcoin mining because it can't control it and represents freedom.

Bitcoin as a Legal Tender

El Salvador create a precedent by making Bitcoin a legal tender, now others are following. Why?



El Salvador made Bitcoin a legal tender in Sept 2021

- Citizens can choose between USD and BTC
- Transactions are based on the lightning network
- A precedent a lot of small economies are watching
- If BTC performance persist El Salvador will get rich

Debasement of the US Dollar

What happened in 1971? The end of the Bretton Wood Framework.



Post WWII, in 1944, the Bretton Woods framework was implemented to create global cooperation. All countries would tie exchange rates to the price of Gold and USD.



In 1971 the USA unilaterally terminated critical aspects of the framework and started printing USD backed solely by the US economy (or trust in that economy).



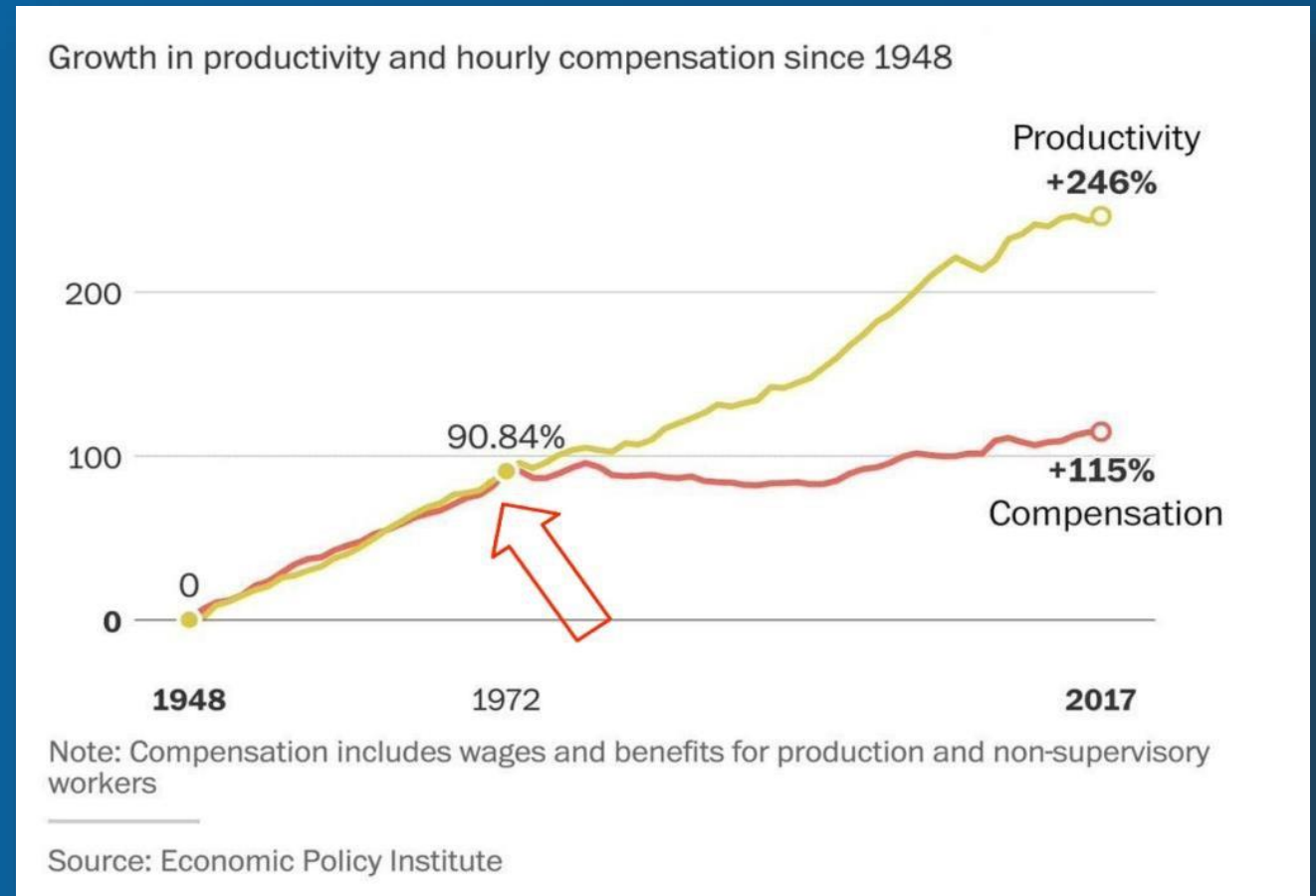
1971 started the **debasement of the USD** but the 2020 – 2021 Pandemic dramatically accelerated it when the FED printing more than 50% of the total volume of USD.



This effectively means **loss of buying power**. For example, \$1,000,000 in 1971 is worth \$149,462* today in buying power or roughly 85% in purchasing power loss.



Bitcoin's volume is forever fixed at 21million and could be even **considered deflationary** with people losing access to their coins. Could it be an edge on inflation?

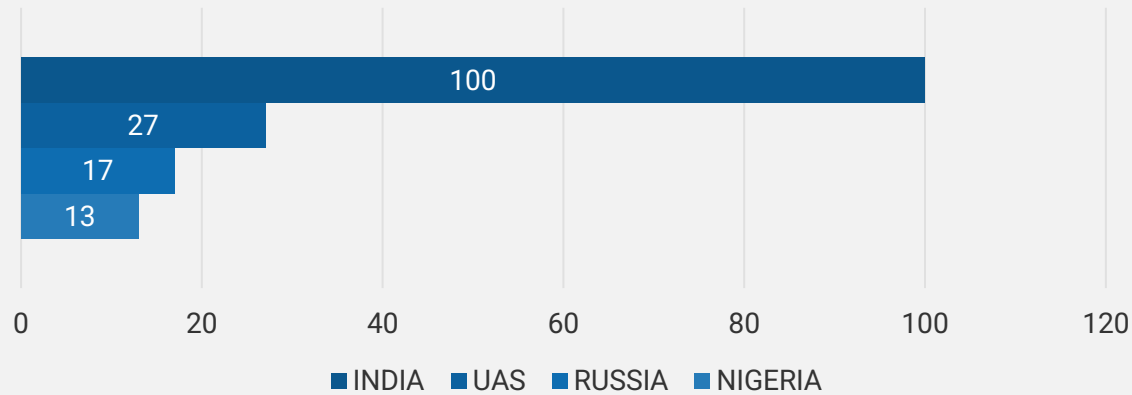


*Source: <https://www.officialdata.org/us/inflation/2021?endYear=1971&amount=1000000>

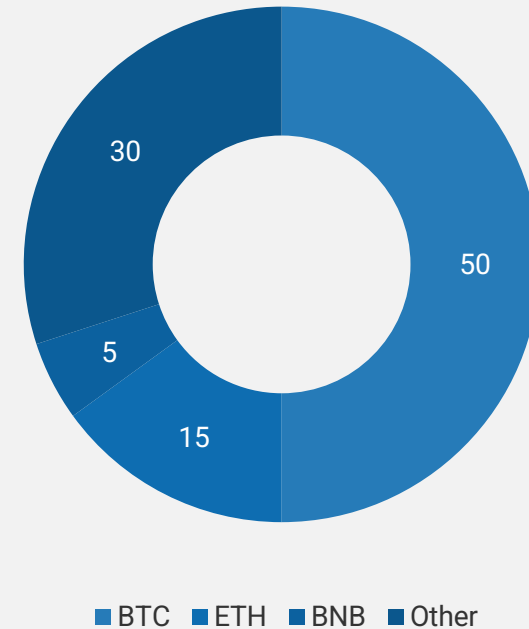
Crypto Tokenomics

Understanding the supply and demand characteristics of cryptocurrencies.

MILLION OF OWNERS PER LOCATION*



TOTAL CRYPTO MARKET CAP \$1.1T



79%

Men invested in Crypto*



21%

Women invested in Crypto*

*Source: <https://triple-a.io/crypto-ownership/>

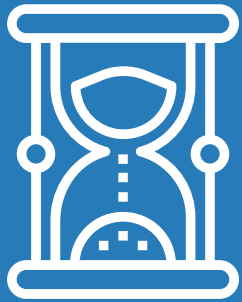
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Opinion: The Modern Portfolio theory's need for uncorrelated asset start to put at a disadvantage institutions that do not to hold a small percentage of their liquidity in BTC / Crypto

“

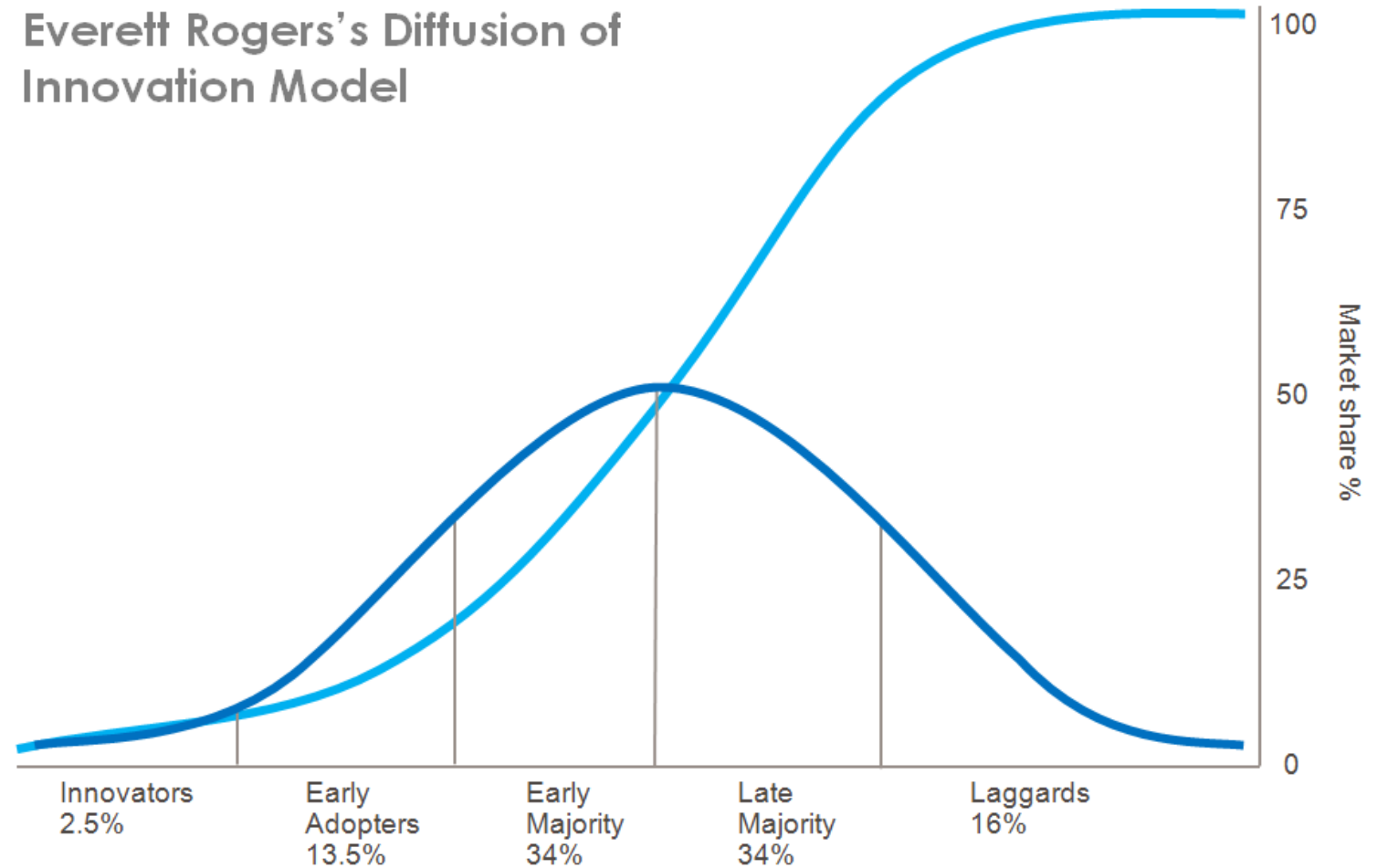


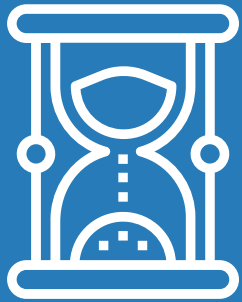
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Am I too late?

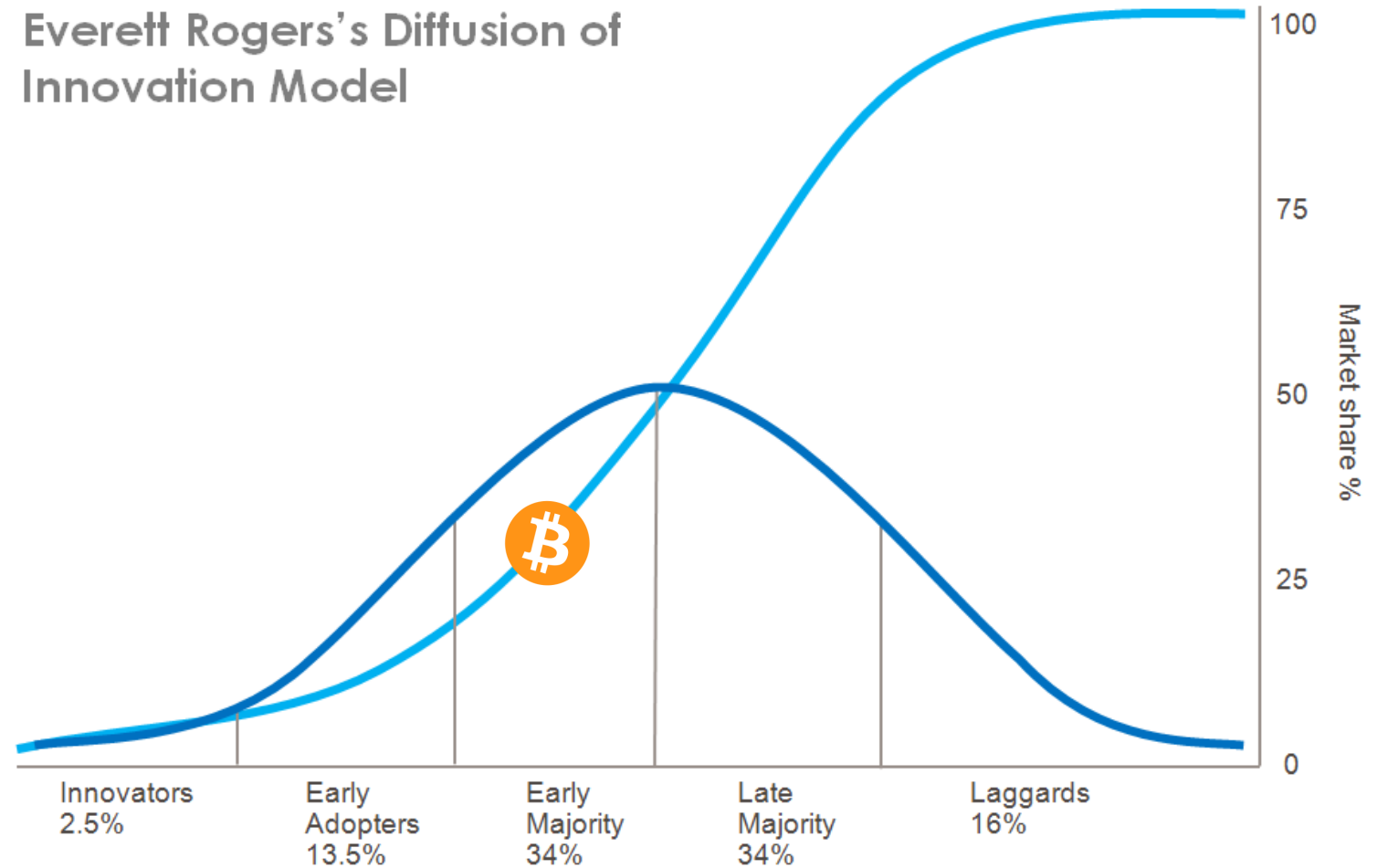
Everett Rogers's Diffusion of Innovation Model





You are not!

Everett Rogers's Diffusion of Innovation Model



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Bitcoin Macro Economics

A dive into Bitcoin's Offer and Demand via OnChain analysis.



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Bitcoin Offer Side

An analysis of the offer side of Bitcoin through different KPI.

Capped Volume



Max 21 million Bitcoins. As of today, total of 19.85 million have already been created.

Lost Bitcoin

Including the wallet of Satoshi that hold 1M BTC access to an estimated 5M BTC has been lost. Today's available supply is then 15.4 million.

Halvings

Halvings reduce new supply by 50%. Current emission per block is 6.25. In April 2024 it will be 3.125. Last one will be created in the year 2140.

Moving out of Exchanges

For the first time in Bitcoin's history the supply on exchange is going down as people move towards self custody.



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Searching for 7,500 Bitcoin or \$500,000,000

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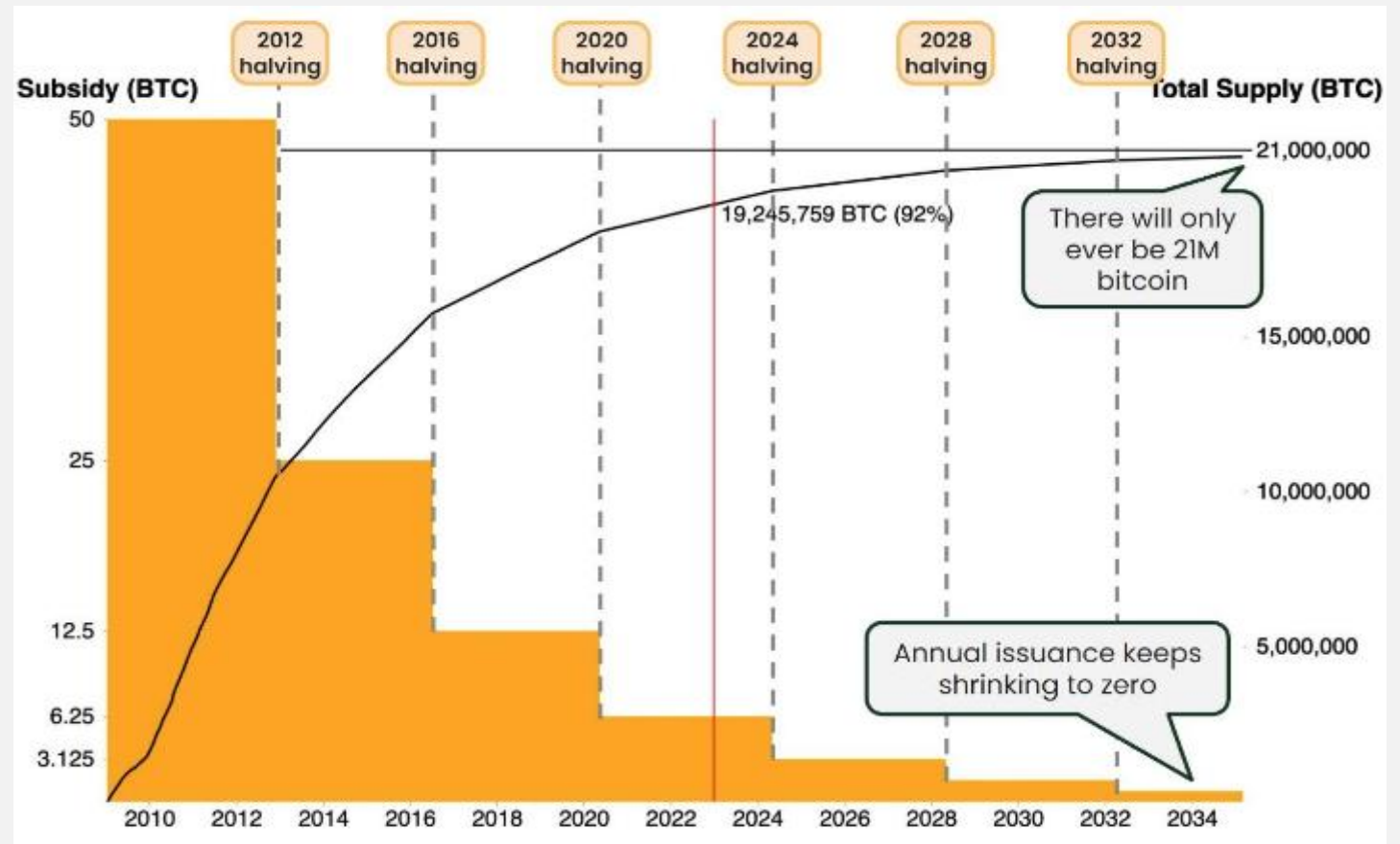
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Offer Conclusion

- Access to 5 million Bitcoins lost and more continue to be lost.
- Supply on exchanges on the decline for the first in Bitcoin's history.
- We are in the next supply shock (started April 2024).
- Supply shock create cycles.

Genesis	- Block reward	50	we are
2012 Halving	- Block reward	25	here
2016 Halving	- Block reward	12.50	↓
2020 Halving	- Block reward	6.25	
2024 Halving	- Block reward	3.125	
2028 Halving	- Block reward	1.5625	
2032 Halving	- Block reward	0.78125	
2036 Halving	- Block reward	0.390625	
2040 Halving	- Block reward	0.1953125	
2044 Halving	- Block reward	0.09765625	
2048 Halving	- Block reward	0.04882813	
2052 Halving	- Block reward	0.02441406	
2056 Halving	- Block reward	0.01220703	
2060 Halving	- Block reward	0.00610352	
2064 Halving	- Block reward	0.00305176	
2068 Halving	- Block reward	0.00152588	
2072 Halving	- Block reward	0.00076294	
2076 Halving	- Block reward	0.00038147	
2080 Halving	- Block reward	0.00019073	
2084 Halving	- Block reward	0.00009537	
2088 Halving	- Block reward	0.00004768	
2092 Halving	- Block reward	0.00002384	
2096 Halving	- Block reward	0.00001192	
2100 Halving	- Block reward	0.00000596	
2104 Halving	- Block reward	0.00000298	
2108 Halving	- Block reward	0.00000149	
2112 Halving	- Block reward	0.00000075	
2116 Halving	- Block reward	0.00000037	
2120 Halving	- Block reward	0.00000019	
2124 Halving	- Block reward	0.00000009	
2128 Halving	- Block reward	0.00000005	
2132 Halving	- Block reward	0.00000002	
2136 Halving	- Block reward	0.00000001	

Bitcoin Market Cycles (Epochs)

Timing the market is impossible, but some models help assess risk levels.



Tip: The logarithmic Regression Model shows how Bitcoin (and cryptos) evolve in cycles as they mature because of BTC reward Halvings.

Bitcoin Demand Side

OnChain analysis of the demand side of Bitcoin through different KPI.

Self Custody



The trend of people create digital wallets to manage their Bitcoin themselves (Self Custody).

Payment / Transfers in BTC

The trend of transfers done to pay with Bitcoins or to transfer Bitcoins.

A protection against Hyperinflation

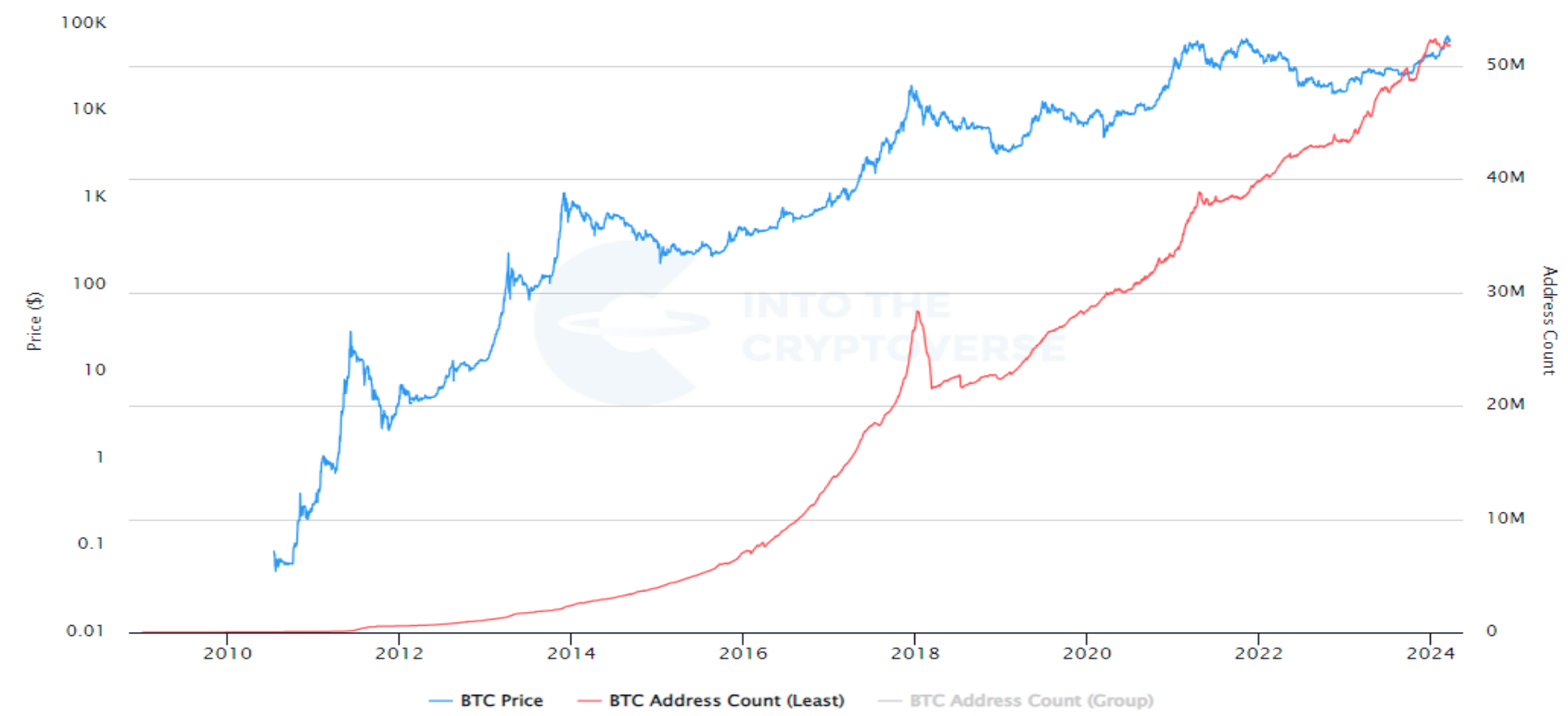
People living in countries with high or hyperinflation are turning to Bitcoin to protect themselves. A good example is Argentina.

Institutional (Spot ETFs)

The biggest investment funds in the world with more than \$20 trillion under management have asked the SEC the approval to launch a sport ETF.

Amount Of Unique Address With At Least 0.00000001 BTC

Latest Value (Least): 51.82M



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BTC Transfer Count With A Value Of At Most 100 USD

Latest Value (At Most): 260.45K



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”

Opinion: We are very lucky to live in countries where the debasement of the local fiat currency is slow. But history has shown that this can change quickly.

“



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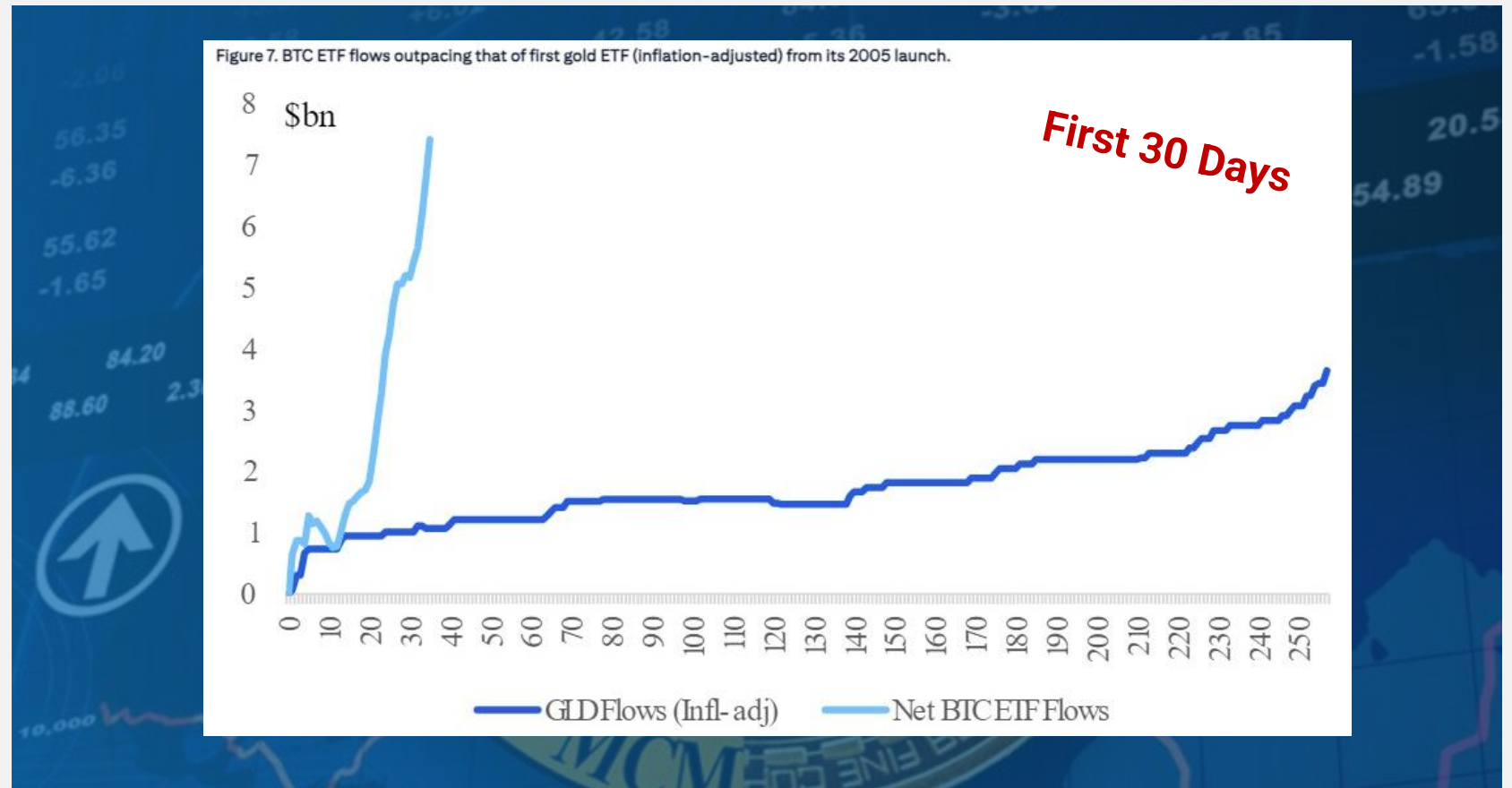
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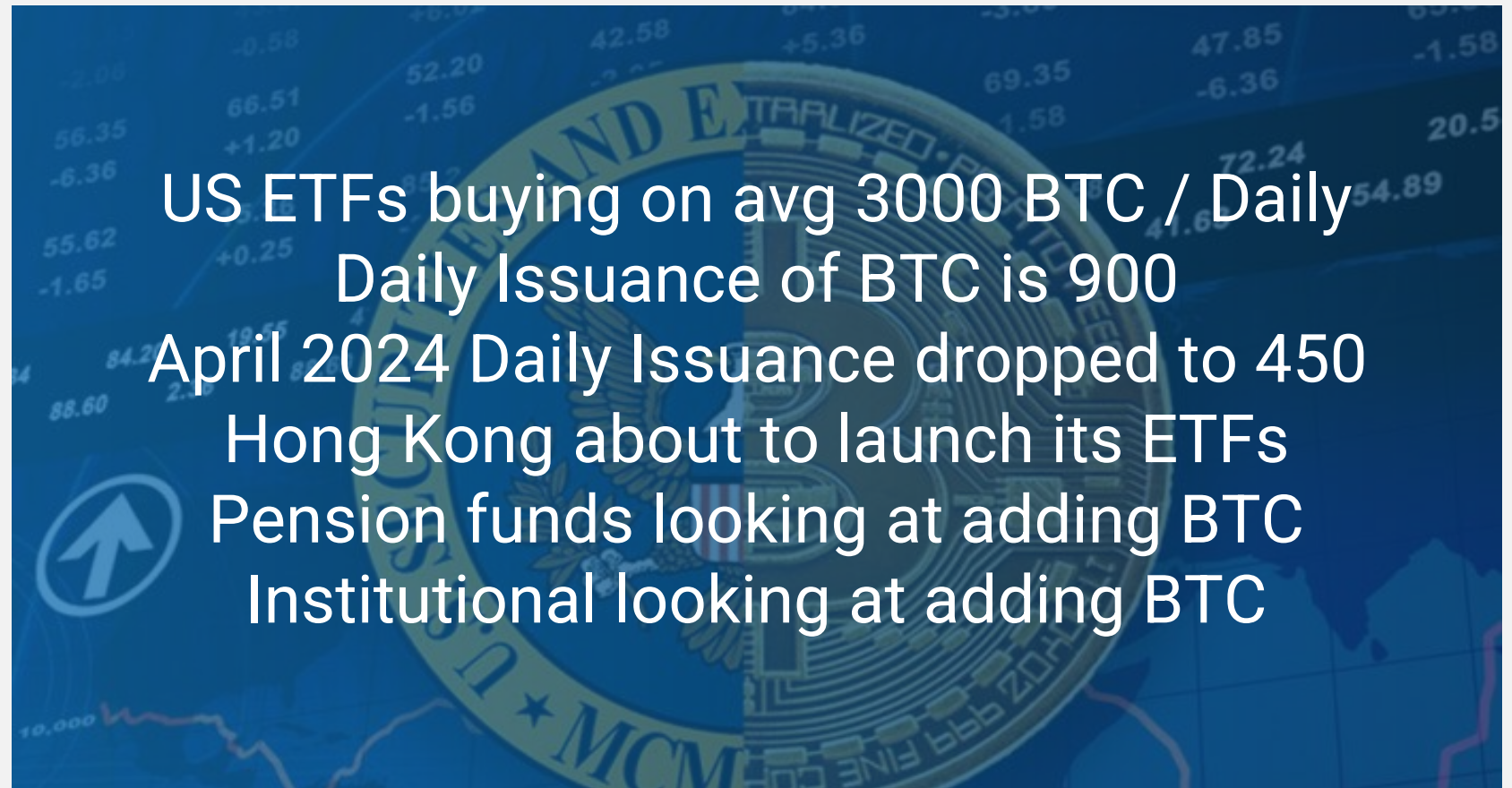
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Now \$60 BN

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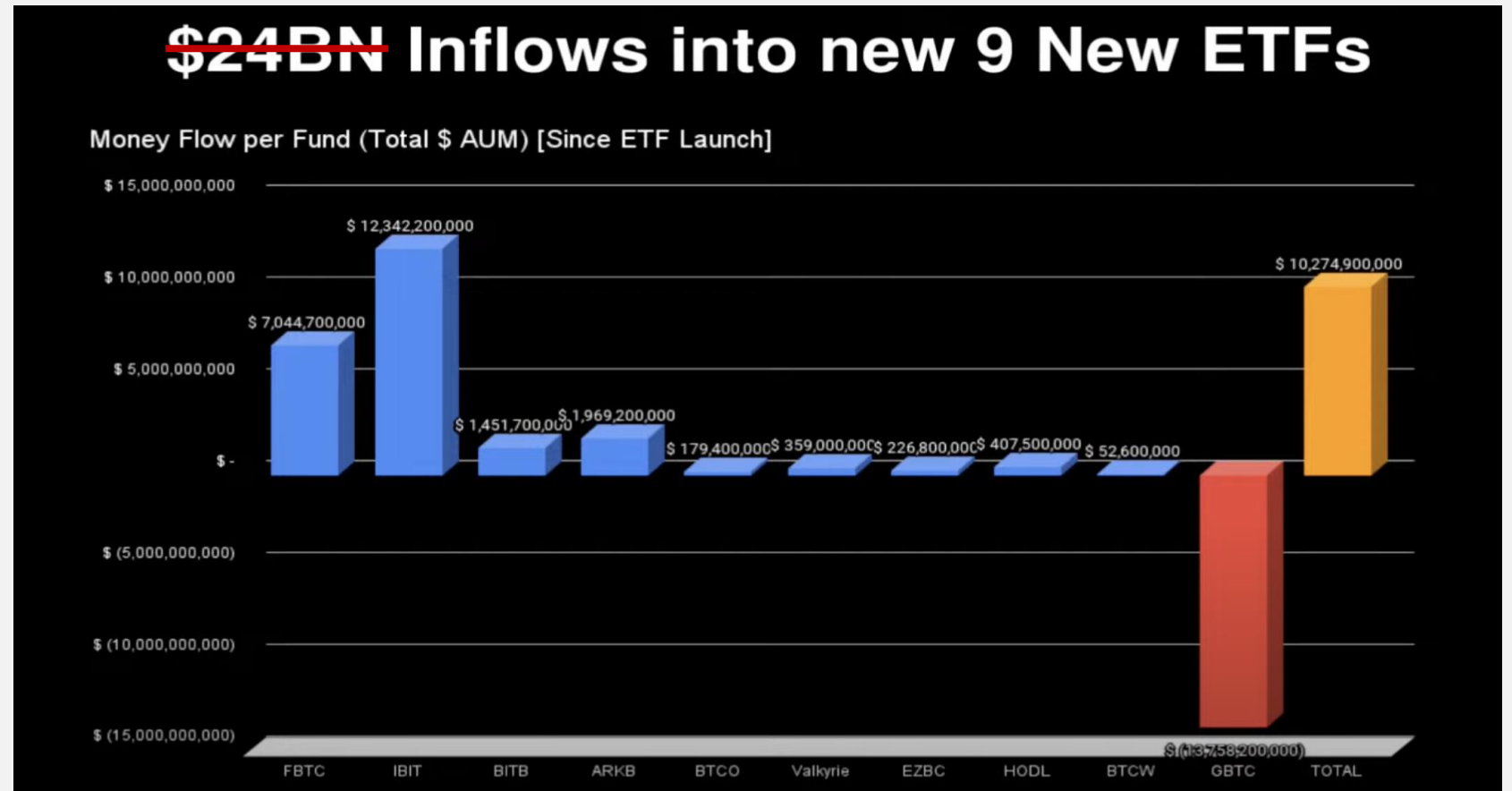
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Where could the price go?
What does Fidelity say?



Fidelity's 2038 Bitcoin Price

Does this number make any kind of sense ?



\$1,000,000,000

Bitcoin has grown on average by **100% annually** since it was launched. If you take a starting price of \$30,000 in 2022 and increase by 100% annually all the way **to 2038 you get \$2 billion.**

Then if you factor in the impact of inflation on the US Dollar for 15 years your start to realize that maybe, just maybe that figure is not completely crazy. Normal inflation would already bring that number to **\$80 million.**

BTC is a scarce resource! Max quantity is 21 million but in 2022 we already know the max available will be 16 million. There will never be more than **416,000 Wholecoiners.****

If you have **0.03 BTC** you are in the 1% Club of Bitcoin owners globally.**
If you own **3.3375 BTC** you are in the 1% Club of Bitcoin owners.**

*Source: <https://www.trustnodes.com/2021/09/01/one-bitcoin-may-be-worth-1-billion-says-fidelit>

**Source: <https://youtube.com/watch?v=8j44WEhshw&feature=youtu.be>

”

Opinion: I do not think that prediction is realistic. It would mean the world as we know has completely changed and the USD has collapsed. But, between \$70k and \$100M there is a lot of room for growth.

“



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An exciting but bumpy road ahead...

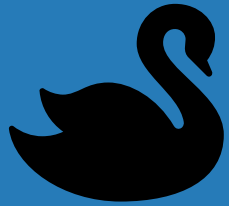


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Inverted Yield Curve signals an upcoming recession?



Black Swan?

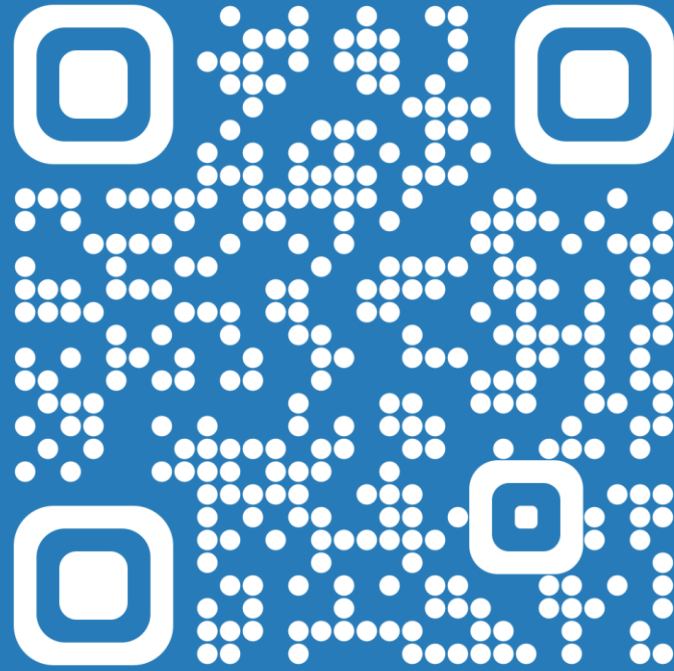


BTC has never experienced a full recession. COVID was interrupted by massive cash injection that ultimately caused inflation.



Social Medias
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Join the
Conversation



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WhatsApp
Public Chat

WhatsApp

Questions?



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