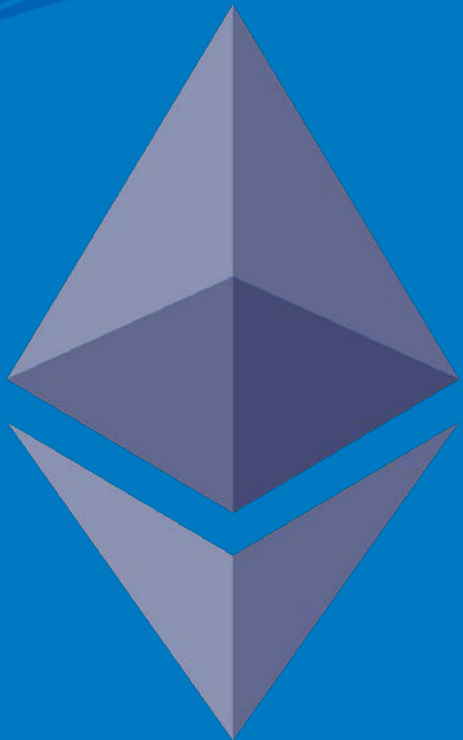


# Cryptocurrency: DeFi and the Future of Finance



# Crypto Terms

- DeFi: Decentralized Finance
- SHA-256: 256-bit signature for text. Method in which Bitcoin and other cryptocurrency is encrypted
- BTC: Bitcoin
- Satoshi Nakamoto: The inventor of Bitcoin, his true identity is unknown.
- Satoshi: Smallest unit of Bitcoin - 0.00000001 BTC
- Stablecoin: Cryptocurrency that is backed by a real-world item (Gold, dollars, oil)
- Blockchain: The distributed ledger system used to record the movement of BTC throughout the world. Anyone can view this ledger.
- Miner: A person or organization that mines BTC either through cracking extremely complex math problems or by charging a fee to verify a BTC transaction on the ledger.
- Ethereum: Second largest cryptocurrency by market cap.  
(Encrypted using ethash not SHA-256)



# What is Cryptocurrency?

## It's Money!

- Can be used as a medium of exchange
- It is a unit of account

## It's a Security!

- People often buy and hold it as an investment.
- Extremely unstable.

## It's Anonymous!

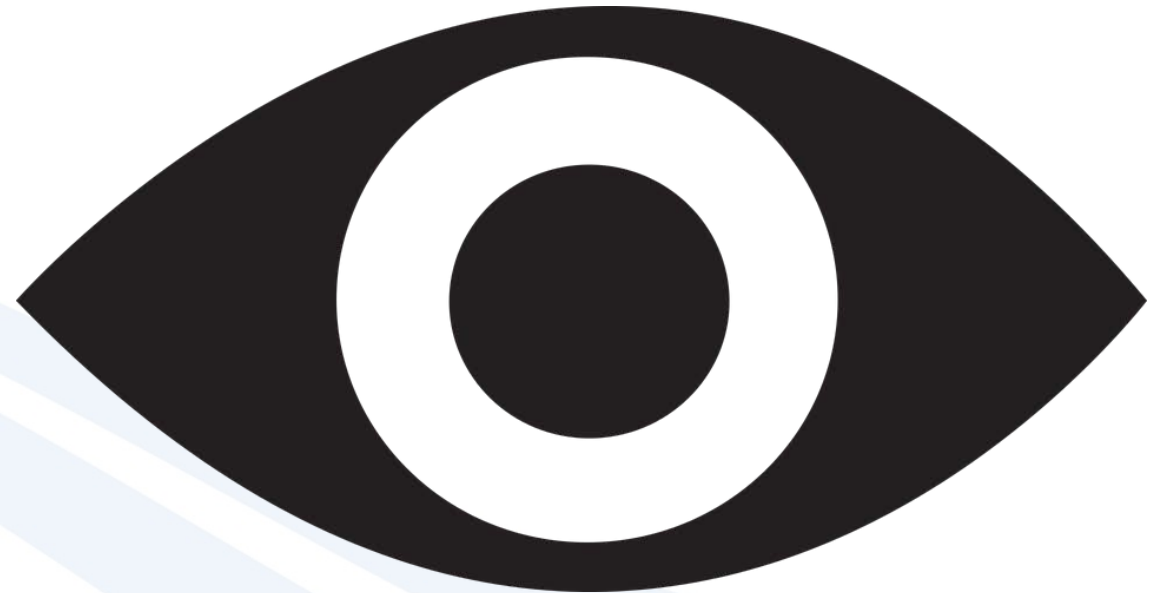
- All you need to store crypto is a storage device. No ID required!
- The government hates this!

## It's Digital!

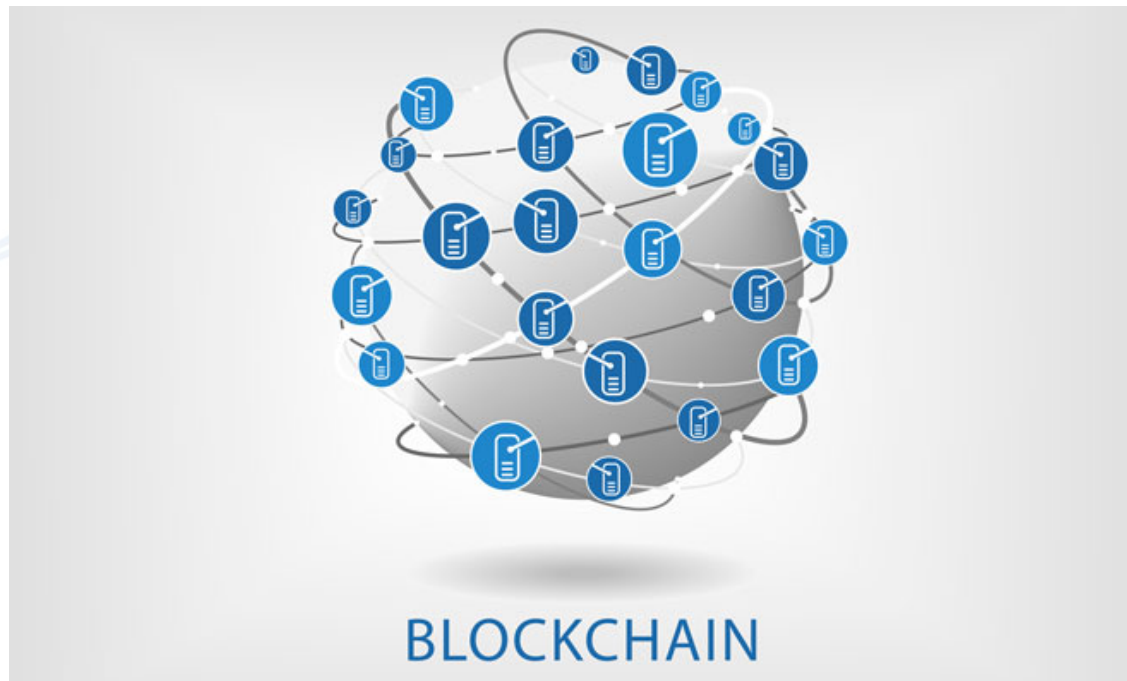
- All transactions take place online.
- IT failure can lead to tremendous loss of value.

## It Remembers where it's been!

- Cryptocurrencies use the distributed ledger to document where every coin has ever been.



# How the Blockchain works



- Imagine a dollar that knows everyone who ever owned it.
- Then imagine that this information was out there for everyone.
- This is how the blockchain works.
- When miners are “mining” Bitcoin or any other cryptocurrency, the blockchain is where they do it.
- The fee a miner charges is to verify a crypto transaction and add a record of it to the blockchain

## A Coin is Born



- As blocks are added to the blockchain, miners are rewarded with a certain amount of Bitcoin.
- Requires a tremendous amount of computing power.
- Miners often work together as collectives in order to get paid sooner.
- Every 4 years, the reward for mining is halved.
- Currently a miner gets 6.25 BTC for every block that is mined, this will halve to 3.125 BTC in 2024



## Circulation and Value

- Once a coin is mined it theoretically exists forever
- Everywhere that coin goes will be noted on the blockchain.
- Almost all crypto currency is subject to wild price swings and speculation.
- Some people will buy and hold BTC as an investment, others will use it to buy goods and services

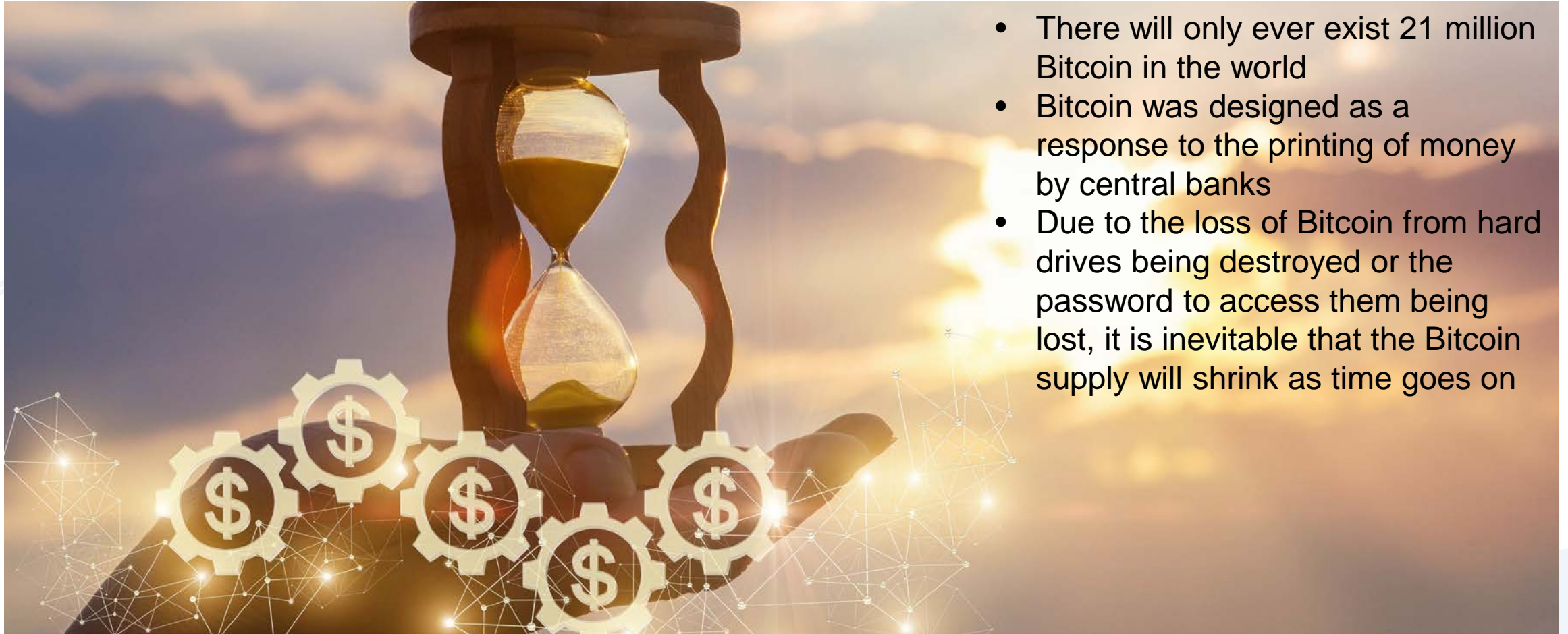


## Destruction or Loss

- Coins are indeed destroyed and lost
- Since they exist on your hard drive (or server) if that physical hard drive is destroyed then the coin is destroyed along with it.
- The blockchain will always remember where that coin was, but if the destination is unreachable by the blockchain then that coin is virtually worthless.
- When a coin can be accessed by the wider internet, then it is in “hot storage
- If a coin can’t be accessed by the internet, then it is in “cold storage”



## A Problem Unique to Bitcoin: Not Enough Coins



- There will only ever exist 21 million Bitcoin in the world
- Bitcoin was designed as a response to the printing of money by central banks
- Due to the loss of Bitcoin from hard drives being destroyed or the password to access them being lost, it is inevitable that the Bitcoin supply will shrink as time goes on





## Stablecoins: The Bane of the Government

- Dollar backed coins – Tether VS FedCoin
- Oil backed coins – Petro (Venezuela)
- Gold backed Coins – Tether Gold

# Why This All Matters To You



*League of Southeastern  
Credit Unions & Affiliates*

# The 2 Schools of Thought in Crypto Regulation

## Wyoming

- Specifically exempts crypto from state securities laws (Utility Token Bill)
- Wants to treat crypto as currency and not as an investment
- Is at odds with the SEC who view crypto as a security and an investment.
- Cannot provide complete safe harbor for crypto companies due to the supremacy of federal law.
- Exempts banks and credit unions from the provisions of the law.

## New York

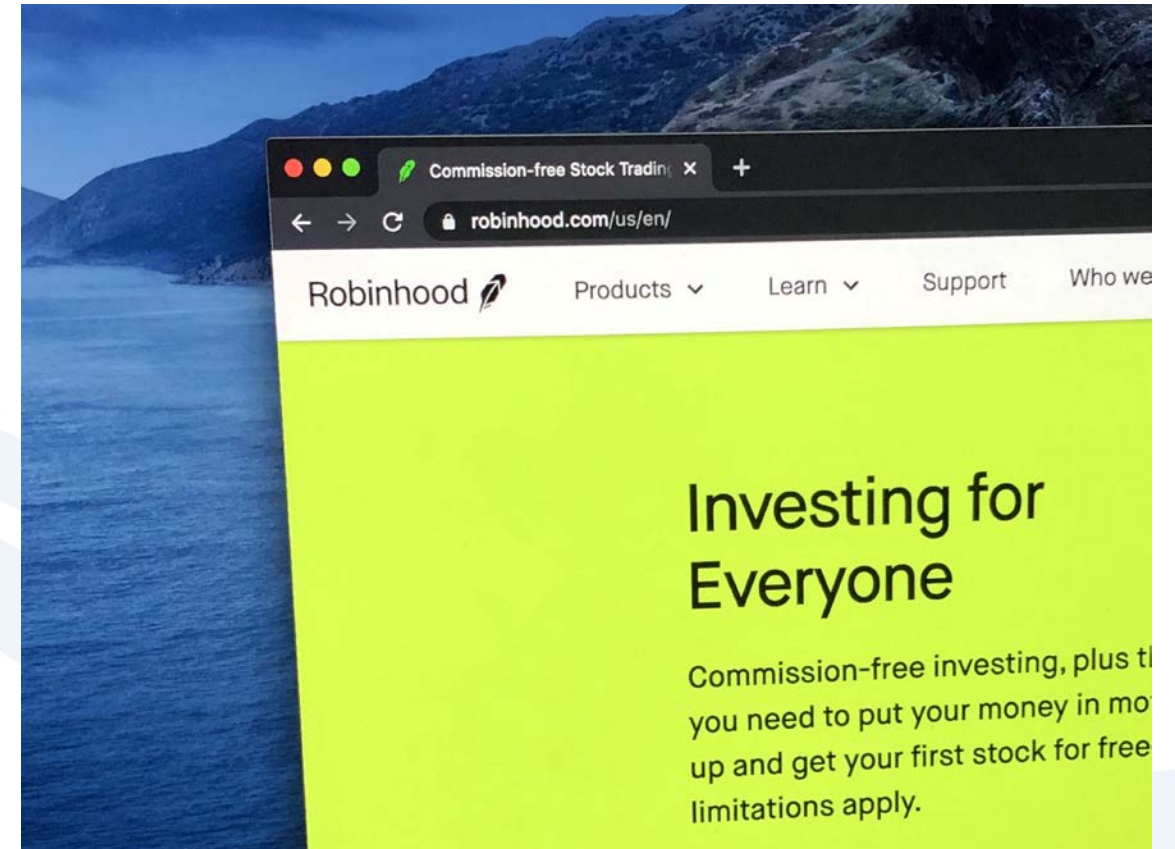
- Special License to operate a Crypto Exchange (BitLicense)
- Views Crypto as a commodity
- Requires a strict AML KYC program be in place before granting the license
- Has led to an exodus of Crypto companies from New York due to the tremendous regulatory burden placed upon them.
- More worried about how crypto is used as an investment than as a currency





## MSBs and Crypto

- MSBs are the main point of access for crypto currency traders
- Robinhood, Coinbase, Binance are some of the biggest exchanges in the world.
- These crypto exchanges are regulated as Money Transmitters where are only regulated at the state level, there is no national money transmitter license
- Once the member has moved the cash to their MSB account, it is no longer your burden to determine if a transaction is suspicious





## Crypto and Credit Unions

- Crypto is already something credit unions must deal with.
- People often move money from their credit union account to an MSB account where they can buy crypto.
- Some newer crypto regulations (Nebraska Financial Innovation Act) explicitly gives credit unions the right to offer crypto wallets to their members. These bills often mention Stablecoins only.



# Crypto: An Avenue for Crime

- Cryptocurrency is one of the favorite means by which a criminal can launder money
- Anonymity is the key
- Once a coin is sent it can't be recovered, this is great for scam artists
- No one understands it, so it is rife with those who are willing to abuse other people's ignorance



- The US is in the midst of a major cybercrime wave
- As a percentage the number of crypto transactions that are criminal has declined
- The industry is maturing, but crime remains a major issue

## In the News: Ransomware and You



- Ransomware is used by cybercriminals to hold a key system of yours hostage
- They often will demand that they be paid in Bitcoin
- Recent case: Colonial Pipeline Hack
- Paid Ransome \$4.4 million
- \$2.3 million of this has already been recovered by the FBI, this indicates that the government may know a way to undo a crypto transaction



# SARs and Crypto

- Crypto transactions in and of themselves are not inherently suspicious
- It is up to you to determine if a crypto transaction needs to be reported
- Some credit unions will SAR every crypto transaction they see, DON'T DO THIS



- If it looks like money laundering and it acts like money laundering, then it is reasonable to assume it is money laundering
- Same goes for fraud and other scams
- Money can be moved to an exchange in a suspicious manner



# Risks to Crypto Currency

- Loss of Anonymity
- Government Regulation
  - China
- Quantum Computers
  - The Million Qubit Machine
- 50% Rule
  - A Problem of Control



## Any Questions?

Thank you for listening!

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