



Bitcoin: Sound Money for the Information Age

Presented by Derek Smith
farscapien.com

Bitcoin: Sound Money for the Information Age

In this session we will discuss Bitcoin, a new form of digital sound money native to the Internet. We will cover what Bitcoin is, why it is unique among the "Cryptocurrencies", and why every business should have a Bitcoin strategy. We will review the Lightning Network, a second-layer protocol built on Bitcoin that allows anyone to accept instant payments with low fees and no charge-back or counter-party risk. An example Crown Moulding online store accepting Bitcoin/Lightning for payments will be demonstrated to give attendees an idea of how Bitcoin/Lightning all works from a users perspective. Finally, we will cover Free and Open Source Software (FOSS) development, how it can benefit your small business, and how to provide value back to the ecosystem.

tip .
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Questions



Download Phoenix Wallet
from your app store

What is Bitcoin?



- Bitcoin is a form of money native to the internet; not 'generally accepted' (yet)
- A **monetary good** - Bitcoin the token is Digital Cash (bearer instrument) transferable over the Internet
 - Base unit is called a satoshi. 100,000,000 sats = 1.00000000 BTC
- A **software protocol** (B) implementing a **sound monetary system**.
 - A system of property rights secured by a P2P network of validating nodes
 - Mining process solves double-spending problem by ordering (timestamping) transactions
- A **database** of transaction history (aka, "the blockchain") and current ledger state (i.e., UTXO Set)

What is Money?

<https://whatismoneypodcast.com/>



What is Money?



MONEY PERFORMS THREE FUNCTIONS:

**MEDIUM
OF
EXCHANGE**

**STANDARD
OF
VALUE**

**STORE
OF
VALUE**

Cave drawings, salt, sea shells, large stones (yap), cigarettes, glass beads, gold, silver, other commodity monies.

Money is what money does.
Money is defined by
its function, not its form.

Spontaneous Order

- Money is an example spontaneous order (bottom-up)
 - Law and Language are other examples
- Money side-steps the **Double Coincidence of Wants** problem by introducing indirect exchange.
- Menger argues that certain goods are selected over time for use in indirect exchange.
- A commodity is selected to become money based on its monetary properties.
- Bitcoin has the best monetary properties

Bitcoin is the BEST MONEY

	Bitcoin	Gold	Fiat
Durable	B	A+	C
Portable	A+	D	B
Fungible	B	A	B
Verifiable	A+	B	B
Divisible	A+	C	B
Scarce	A+	A	F
Established History	D	A+	C
Censorship Resistant	A	C	D

Bitcoin as a Monetary System

- Bitcoin is a monetary token + final settlement system
- The Bitcoin Protocol contains all the logic needed to create a **SOUND MONETARY SYSTEM**
 - “Sound” meaning it respects Private Property Rights → Laissez-faire
 - Costly to produce (i.e., "hard money")
 - Supply is **ABSOLUTELY SCARCE** (fixed total supply @21m)
- Bitcoin Protocol secures the private **Property Rights** of Bitcoin hodlers
- Bitcoin's competes with OTHER monetary systems for liquidity
 - Gold, fiat (USD, euro, dinar, yuan, etc.)

The Problem of Trust

“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. Banks must be trusted to hold our money and transfer it electronically, but they **lend it out in waves of credit bubbles** with barely a **fraction in reserve**. We have to trust them with our **privacy**, trust them not to let identity thieves **drain our accounts**.”

Satoshi Nakamoto Quote

Decentralization

“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.”

- Satoshi Nakamoto

- Exchanges
- Developers
- Software clients
- Mining pools
- Mining hardware
- Economically active nodes
- General value ownership distribution
- Percent of users who control their own private keys
- Percent of users who audit the ledger with their own node

Bitcoin seeks to Minimize Trust

- Minimize trust by Optimizing for Decentralization
 - Protocol is optimized for VERIFICATION/AUDITING
- Trust Minimization as a design goal of Bitcoin
 - You can use Bitcoin by trusting Open Source Software.
 - You have to trust the hardware it's running on, too
- Instead of having trusted relationships with other humans or human-run institutions, you place trust in software developed in an open and collaborative way
- Everything is verifiable and open to review (if you can read source code)

“The Times 03/Jan/2009
Chancellor on brink of
second bailout for banks”

Why is Bitcoin
unique?

Perception



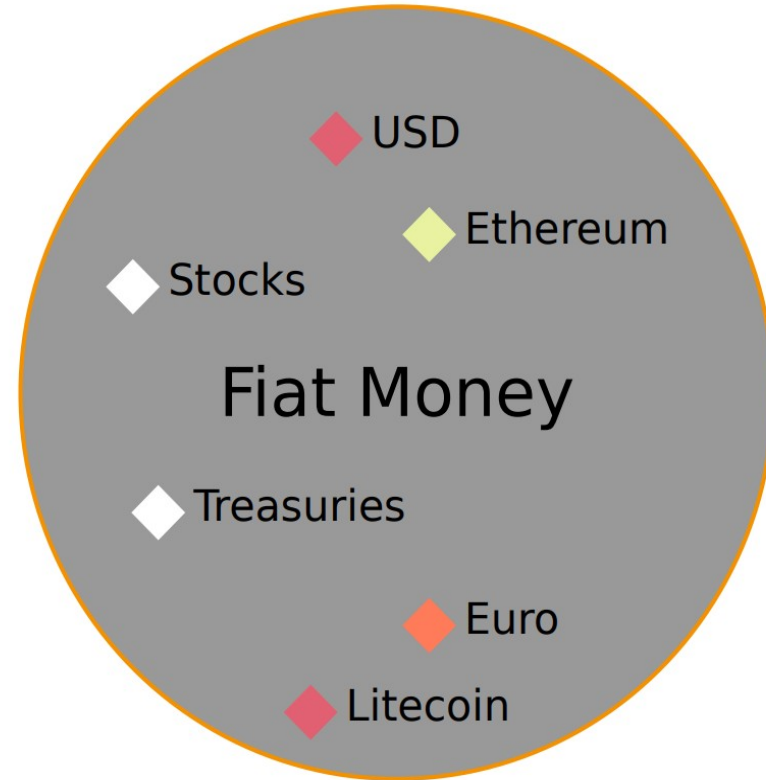
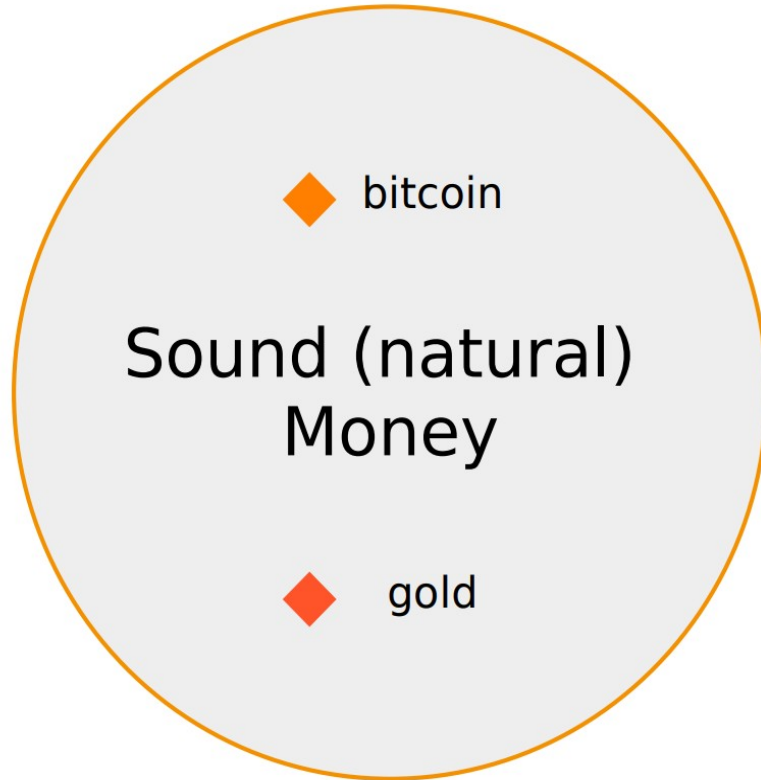
Reality



Hard to produce
(economic cost)



Easy to produce
(cost of production
trends to zero)



Issues with “Cryptocurrency”

- “Cryptocurrency” has an centralized issuer (thus a security)
- Like fiat money, total base money supply is determined by a small group of individuals
 - This means counterparty risk, even with self custody
- Rules changed easily (hard fork)
- Most “Cryptocurrencies” are Bitcoin affinity scams
 - Fools gold



Business Case for Accepting Bitcoin



Bitcoin 

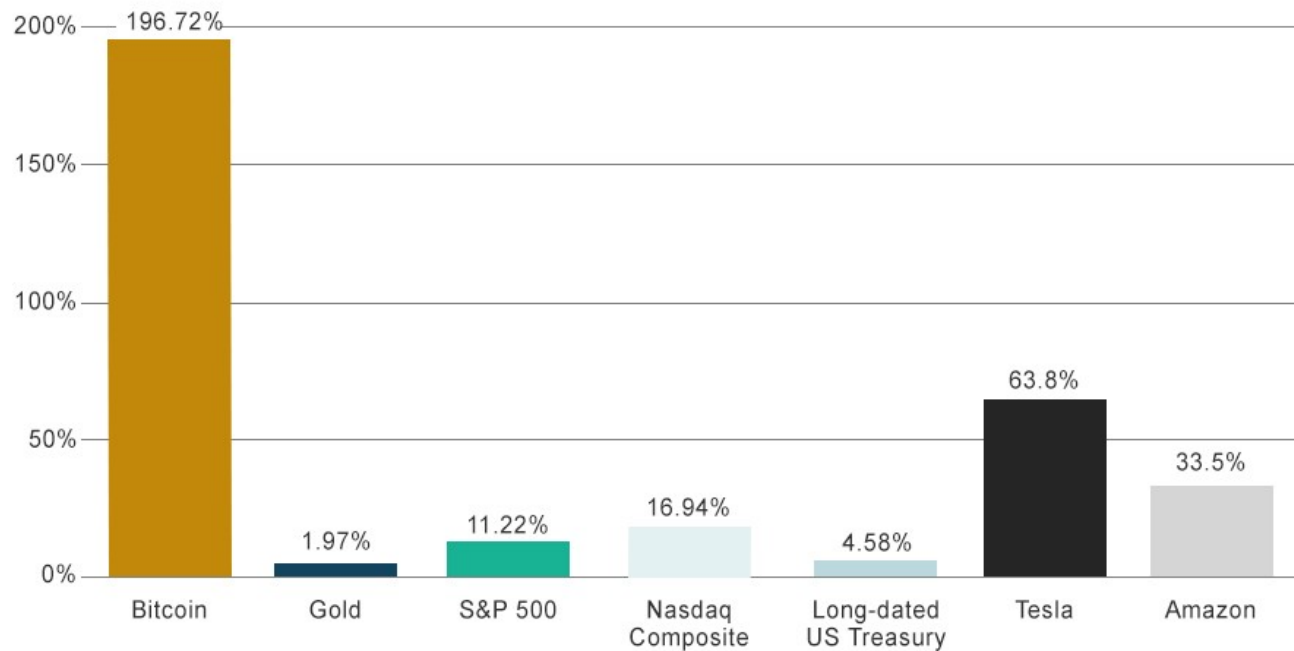
@Bitcoin



“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.”

- Satoshi Nakamoto

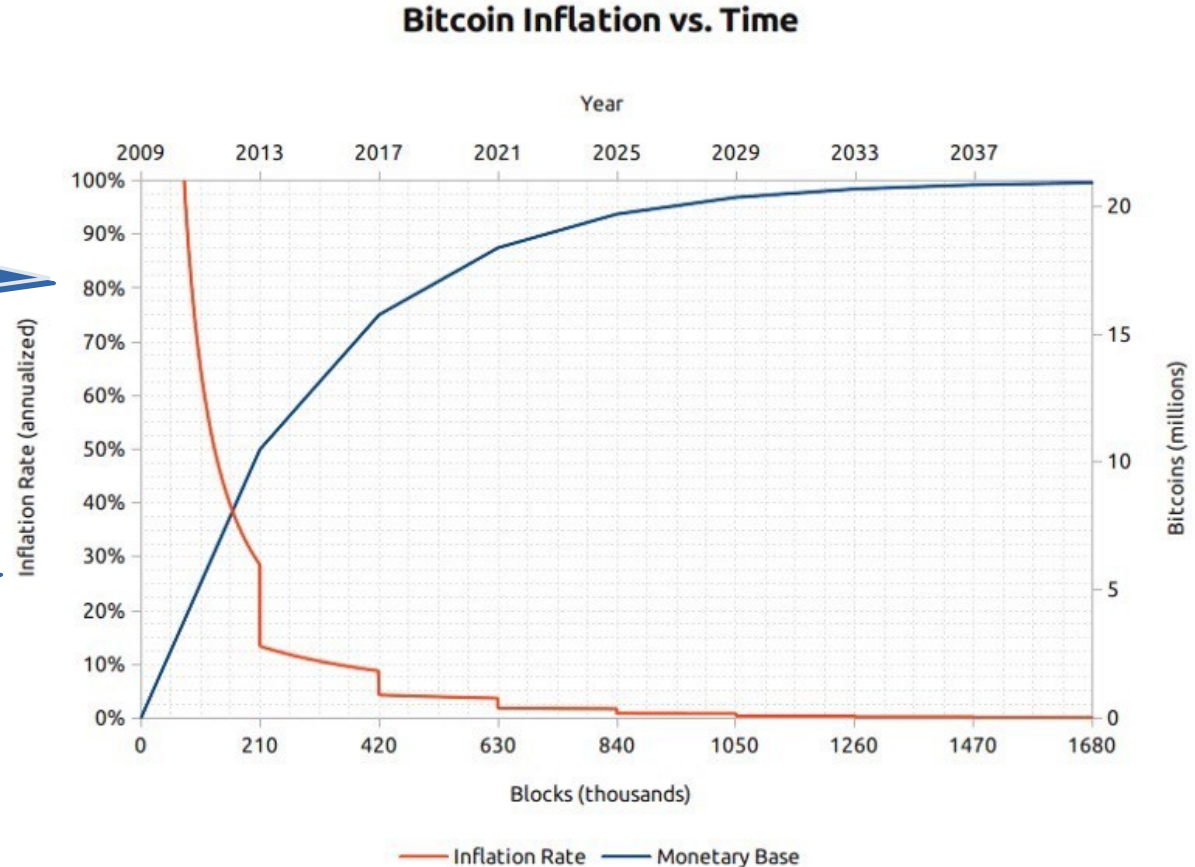
10-year Compounded Annual Growth Rates (CAGR)



Bitcoin Issuance Rate

Does your coin have a credible monetary policy?

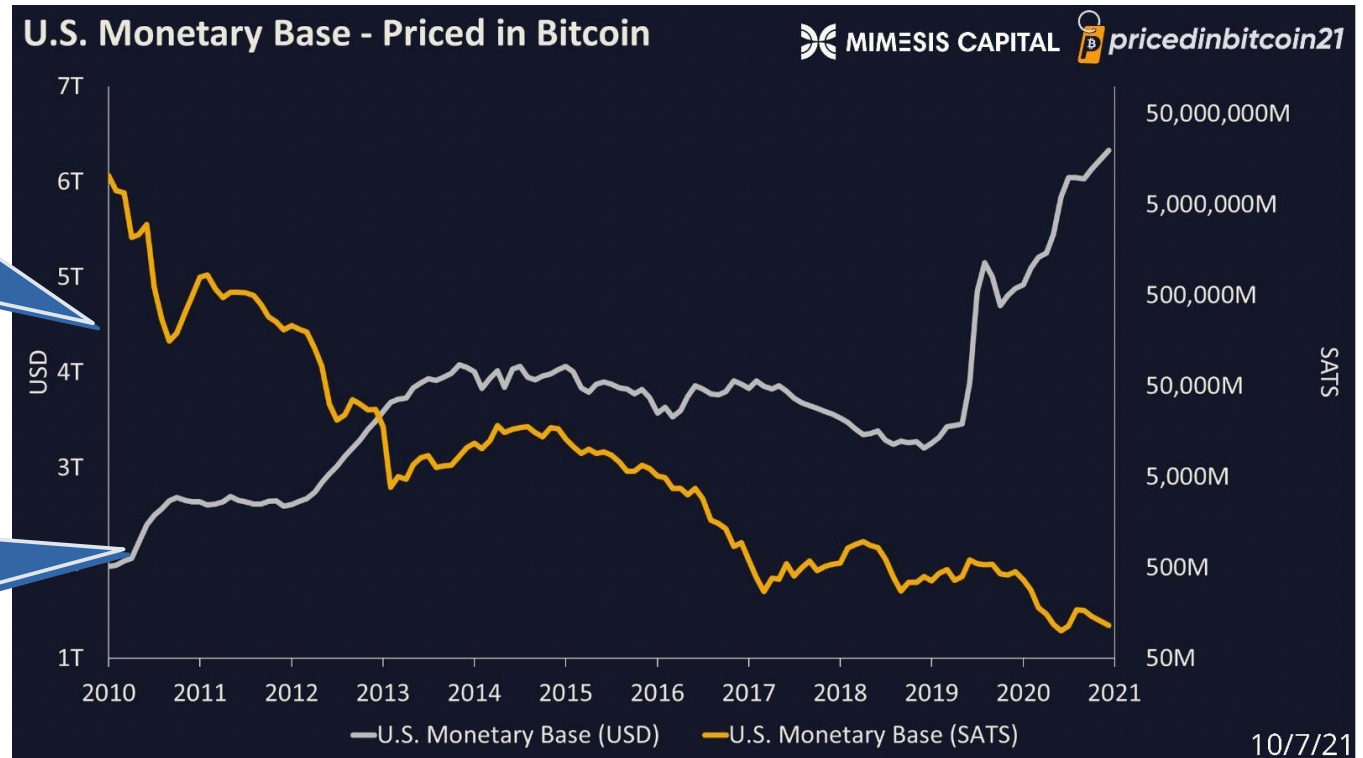
Bitcoin total supply can be independently verified.



USD M1 Monetary Base

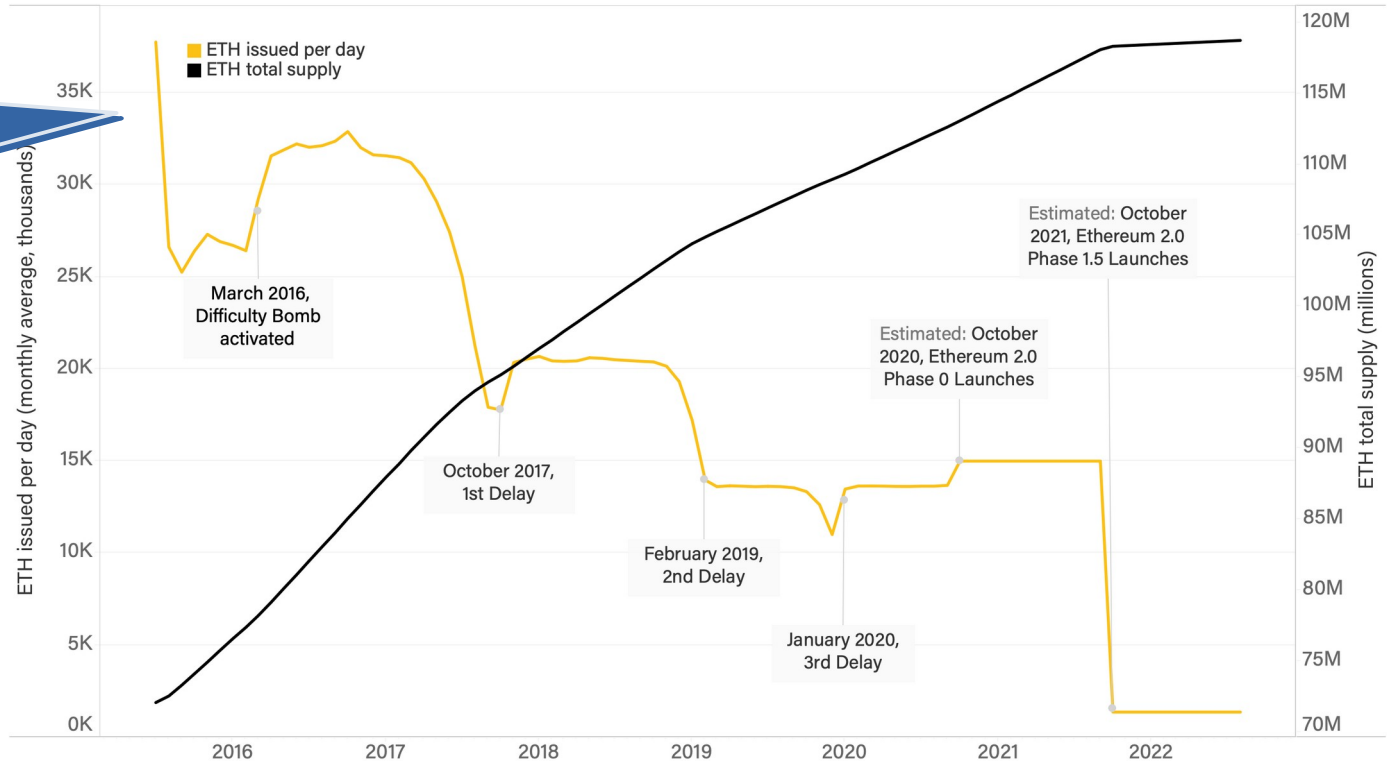
How can any business determine profits/losses when the money supply is unverifiable?

Does your coin have a Credible Monetary Policy?



Ethereum Issuance Rate

Ethereum's historical and projected issuance rate



Is the issuance rate predictable?

Is it easy to change?

Price Inflation



\$20



1928



\$20



1996

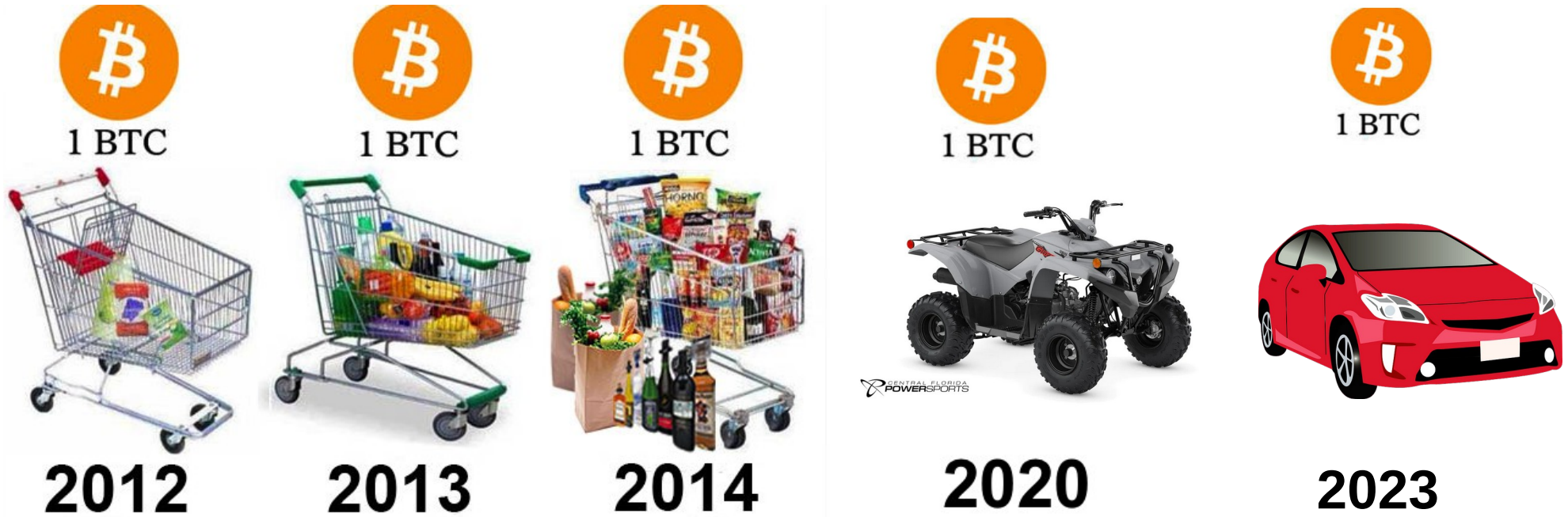


\$20



2017

Price Deflation



Monetary Systems Compared

Fiat Monetary System

- Issuance rate of monetary base is **unpredictable**.
- Total supply of monetary base is **unknown**.
- **Economic costs** of money production approach zero;
- Ability to create money is centralized and costless. Enriches people close to the money spigot.
- Redistributive

Bitcoin Monetary System

- Issuance rate is **predictable**.
- Total supply is **known at all times**.
- Economic cost REQUIRED to produce new money.
- New money is issued to anyone who can demonstrate that a real economic cost was expended. Level-playing field.
- Participation is voluntary
- Initial coin distribution is meritocratic

Properties of Bitcoin

- Fixed & known money supply
- Fungible
- Censorship Resistant
- Open & Permissionless
- **Decentralized**
- Pseudonymous

S&P 500 expressed in USD



S&P 500 Expressed in BTC


S&P 500 in BTC





Vijay Boyapati @real_vijay · Mar 1, 2018



Sound money is the norm of human history and we will return to it with [#Bitcoin](#) .

The century between the gold standard and the **Bitcoin** standard - the fiat money **interregnum** - is the real anomaly of history.

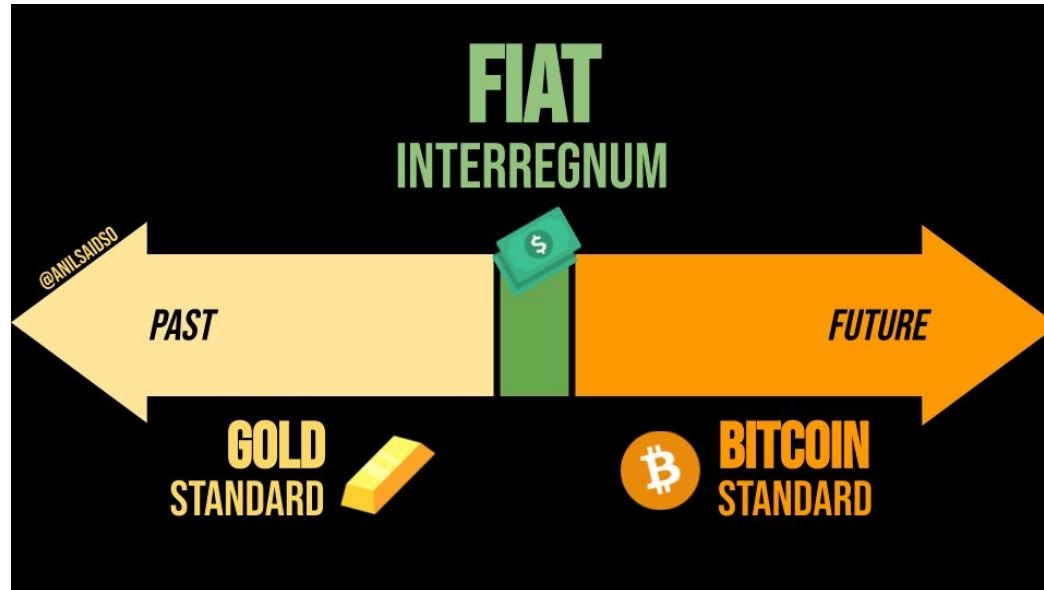
21

316

792



Tip



Bitcoin Adoption Strategy

- Scale into Bitcoin.
- Bitcoin allocation should be proportional to your understanding of Bitcoin & the security (be your own bank!)
- Accept Bitcoin/Lightning for goods/services.
- Establish an on-chain governance structure (i.e., multisig).
- SELF CUSTODY!
- **Acquisition Strategy**
 - **Dollar Cost Average (DCA) with USD earnings**
 - **Smash buy?**
- Start running your own node

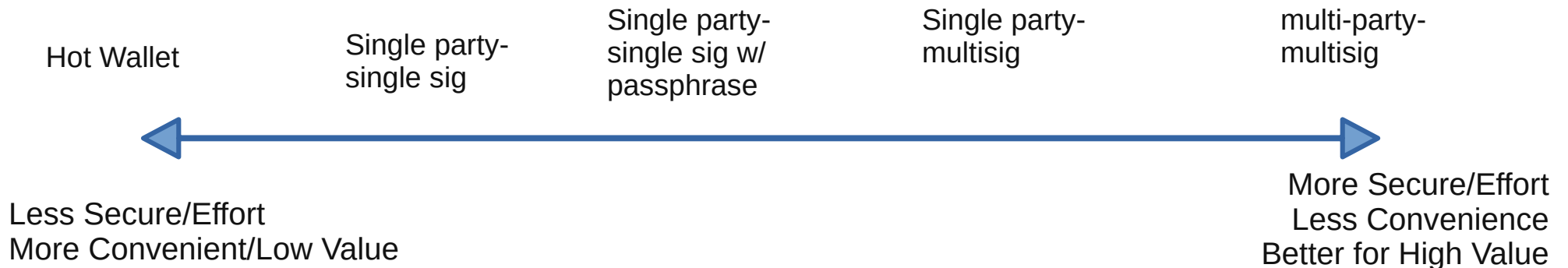
Bitcoin & Lightning for Corporations

As part of MicroStrategy World 2023

May 1-4, 2023 | Orlando, Florida

Accepting Bitcoin (on-chain)

- Minimal costs to start receiving Bitcoin on-chain.
- Great for B2B or international transactions
- To send Bitcoin to another Bitcoin user costs ₿ in tx fees.
- An server is **UNNECESSARY** to receive on-chain ₿
- Funds should be secured according to a risk-based approach



Unlocking a Crypto Multisignature Wallet



CFO



Justin



Signed ✓

CEO



Vittie



Signed ✓

3rd party
auditor /
recovery
agent



Craig

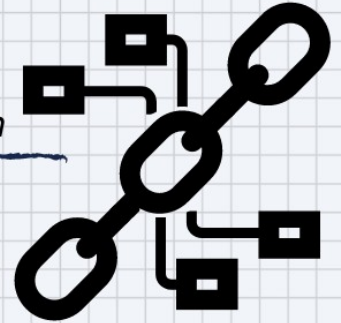


~~Unsigned ✗~~

Unlocked

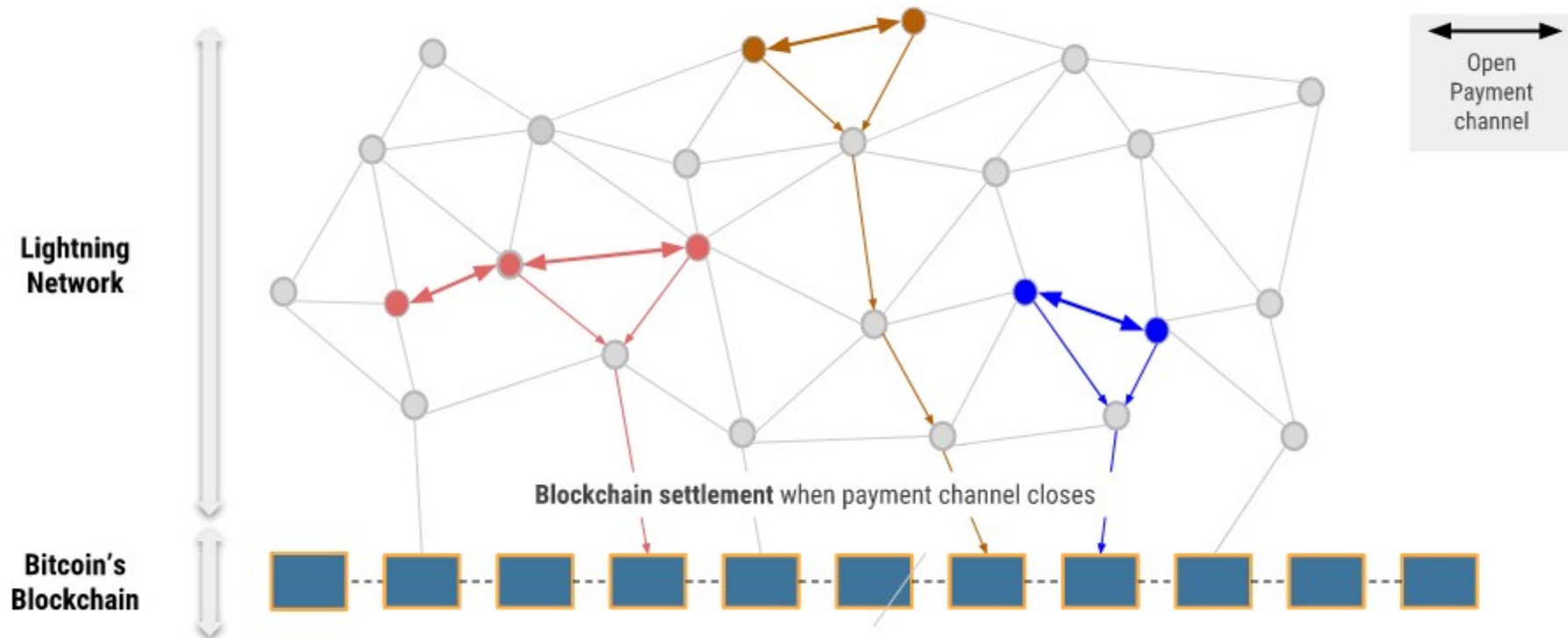


Transaction



Lightning Network

Lightning Network



Business Case for Lightning Network

- Lightning has SIGNIFICANTLY LOWER fees (~0.2% or less) paid by sender
- No counter-party risk / Instant transactions
- Total Addressable Market = Internet
- Cheap to run a node
 - Why? Architectural decision that promote decentralization.

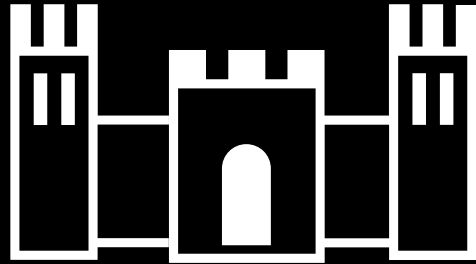
Payment Systems Compared

- Bitcoin Lightning
 - Instant final settlement with no charge-back or counter-party risk.
 - Censorship Resistant
 - Fees are EXTREMELY low (fee market not mature)
~**0.2%** + no monthly fees
 - Privacy by design
- "Fiat Fintech"
 - Inherent counter-party risk; charge-back risk up to 3-months;
 - Censorship-prone
 - Fees on Visa / Mastercard **3%** per tx + monthly fees
 - Limited privacy

Value4Value in Production

- Value4Value.info (tipping)
 - Accept Bitcoin using a website (one-time & recurring)
 - Accept Bitcoin using a Podcasting 2.0 App (streaming payments)
 - Accept Bitcoin using censorship-resistant Social Media (e.g., zaps) on Nostr

<https://moulding.money>

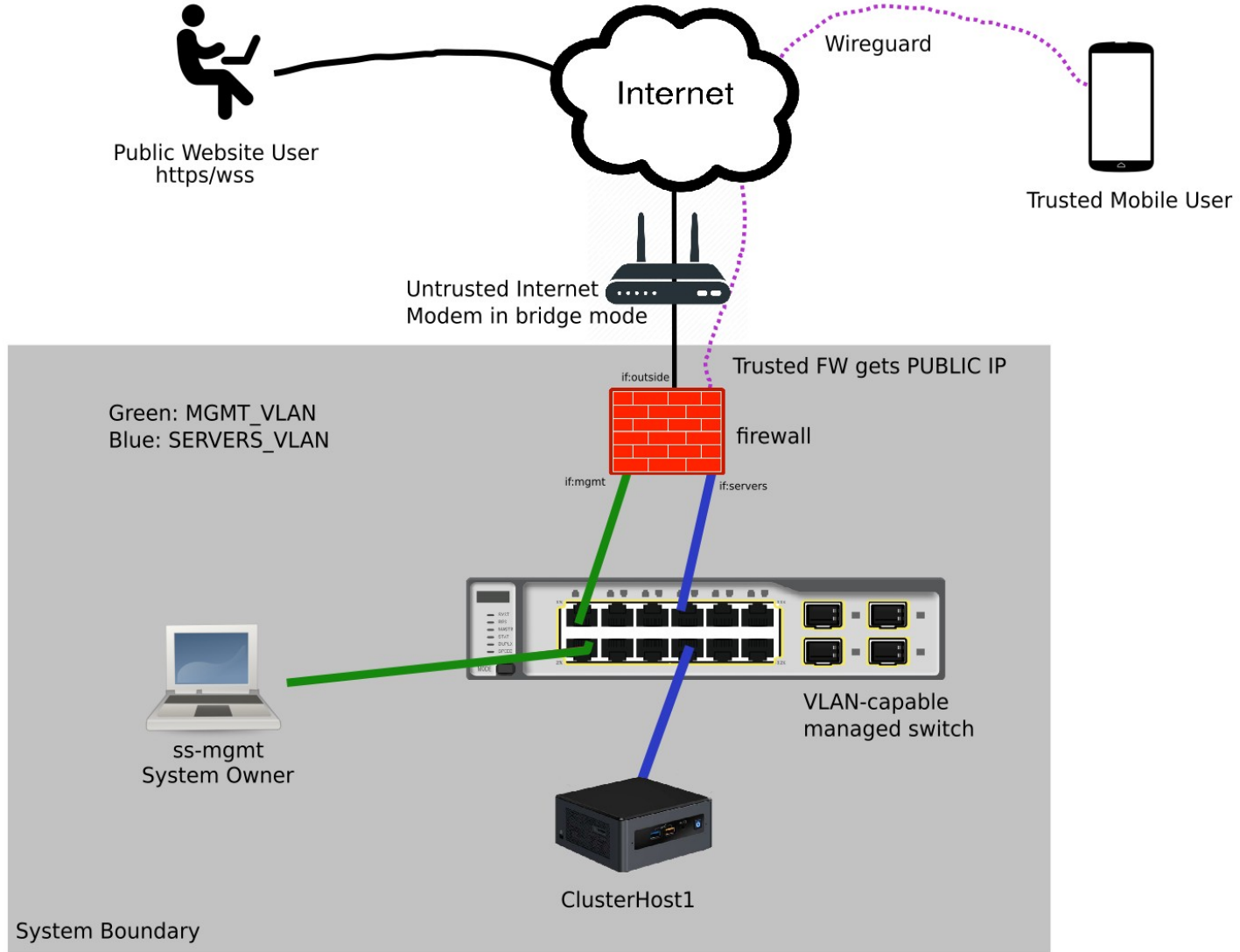


SOVEREIGN
STACK

sovereign-stack.org

What is Sovereign Stack?

- Software (bash) & Website (sovereign-stack.org)
- Sovereign Stack enables you to **create** and **self-host** one or more Bitcoin-native Value4Value websites.
 - sovereign-stack.org/tag/example-sites
- Sovereign Stack deploys FOSS to create cool websites.
- Sovereign Stack automates infrastructure deployments and upgrades – i.e., Infrastructure as code (IaC)
 - Deploy, backup, restore, migrate, TLS enrollment, etc.





Satoshi-Spirits.dev

farscapien.com

Free and Open Source Software (FOSS)

Free and Open Source Software (FOSS)

- Free as in Freedom – code is open for all to read and modify and contribute to
- Huge ecosystem of software developers writing software and tools for the Bitcoin ecosystem
- If you use any of this software, contribute back!
 - Allocate time/money towards Open Source Contributions
 - Hangout in chatrooms
 - Suggest documentation, bug fixes, security updates