




Fix the Money: How Bitcoin Solves Our Broken Financial System

Agenda

- The Problem
- Case Discussion
- The Solution
- Case Discussion
- The Future
- Case Discussion








**For every complex problem, there is an
answer that is clear, simple, and wrong.
- H.L. Mencken (~1910)**



The road to hell is paved with good intentions.
- Saint Bernard of Clairvaux (1090–1153)



**To do nothing is sometimes a good
remedy.
- Hippocrates (460–370 BCE)**

WHAT ABOUT INTERVENTION DOESN'T WORK?





**Interventions often fail
because they do not
account for the complexity
of the systems they aim to
influence.**

A dramatic photograph of a wildfire burning on a hillside. Thick black smoke billows from the flames, which are visible in several places on the slope, including around the base of some trees. In the foreground, a road with a metal guardrail runs horizontally across the frame. A white RV and a red pickup truck are parked on the road. The scene is set against a backdrop of dark, smoky hills and some green trees on the left.

THE FOUR STAGES OF ECONOMIC RUIN

The background image is a dramatic landscape. In the foreground, a road with a metal guardrail runs horizontally. On the road, there is a white camper and a red car. Behind the road, a hillside is covered with tall, dark green pine trees. In the background, a large wildfire is burning, with bright orange and yellow flames rising from the ground and trees. Thick, dark grey smoke billows upwards from the fire, filling the upper half of the image. The overall scene is one of a natural disaster in progress.

STAGE ONE REALITY DISCONNECTION

Intervention disconnects us from the true reality of the situation, leading to unintended consequences that often perpetuate the problem instead of solving it.

The background image is a dramatic landscape. In the foreground, a road with a metal guardrail runs horizontally. On the road, there is a white camper and a red car. Behind the road, a forest of tall pine trees is visible. In the background, a large wildfire is burning, with thick black smoke rising into the sky and bright orange flames consuming the trees and ground. The overall scene is one of destruction and danger.

STAGE TWO STIFLED COMPETITION

Intervention kills the natural process of innovation and creative destruction, preventing the growth of new ideas and industries, which is necessary for adaptation.



STAGE THREE DISTORTED CAPITAL FLOWS

Intervention distorts capital allocation, redirecting resources away from thriving sectors to failing ones, weakening the overall economy.

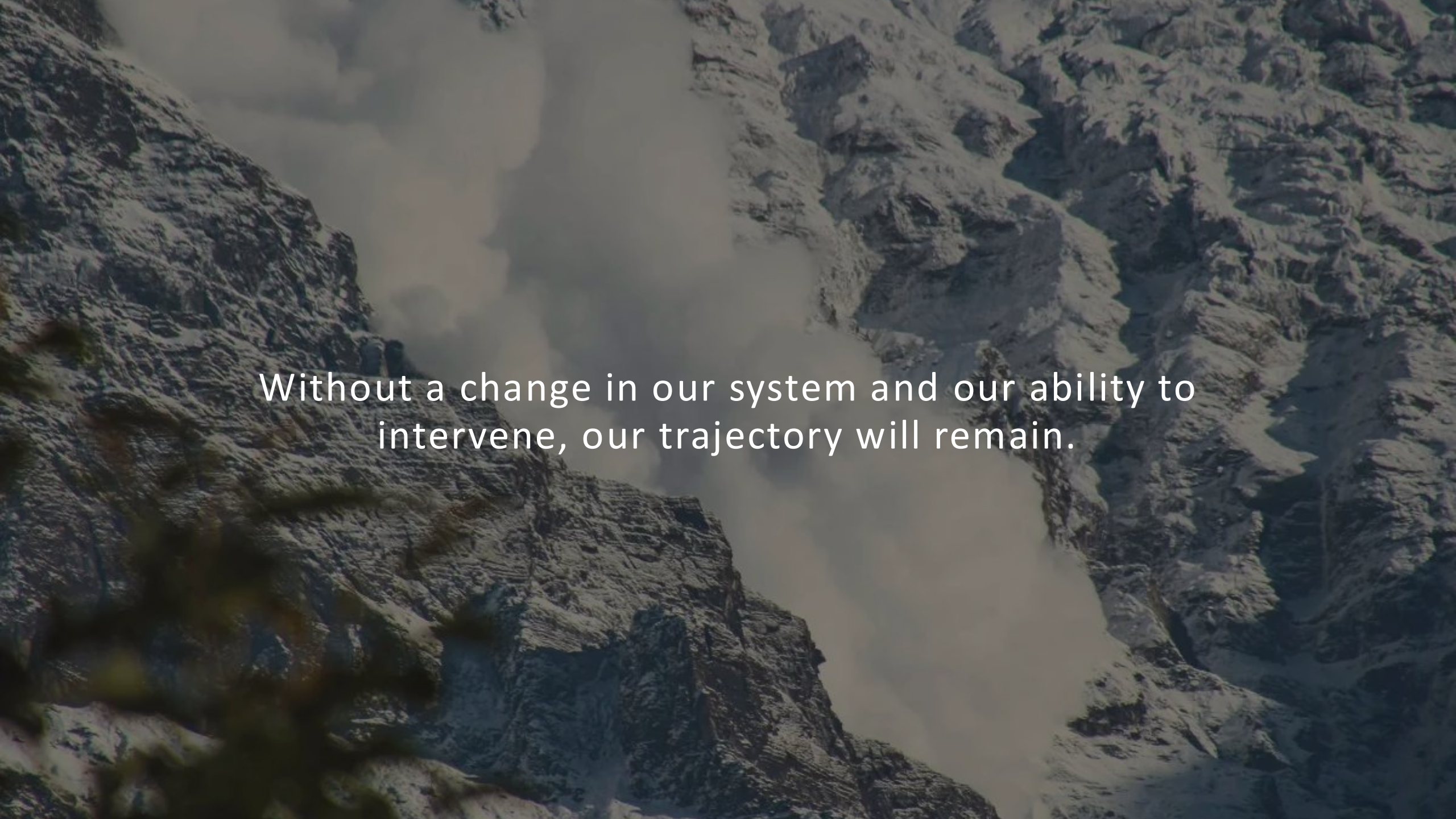


STAGE FOUR IMPAIRED DECISION-MAKING

This innovation suppression and misallocation of capital and resources lead to faulty information, impairing decision-making. The outcome, exacerbated economic fragility.

A large wildfire is burning on a hillside, with thick black smoke rising into the sky. The fire is visible in several areas, including a large patch on the left and a vertical strip on the right. In the foreground, a road with a metal guardrail runs across the bottom. A white RV and a red car are parked on the road. Several tall pine trees are visible, some of which are partially obscured by the smoke and fire. The overall scene is dramatic and dangerous.

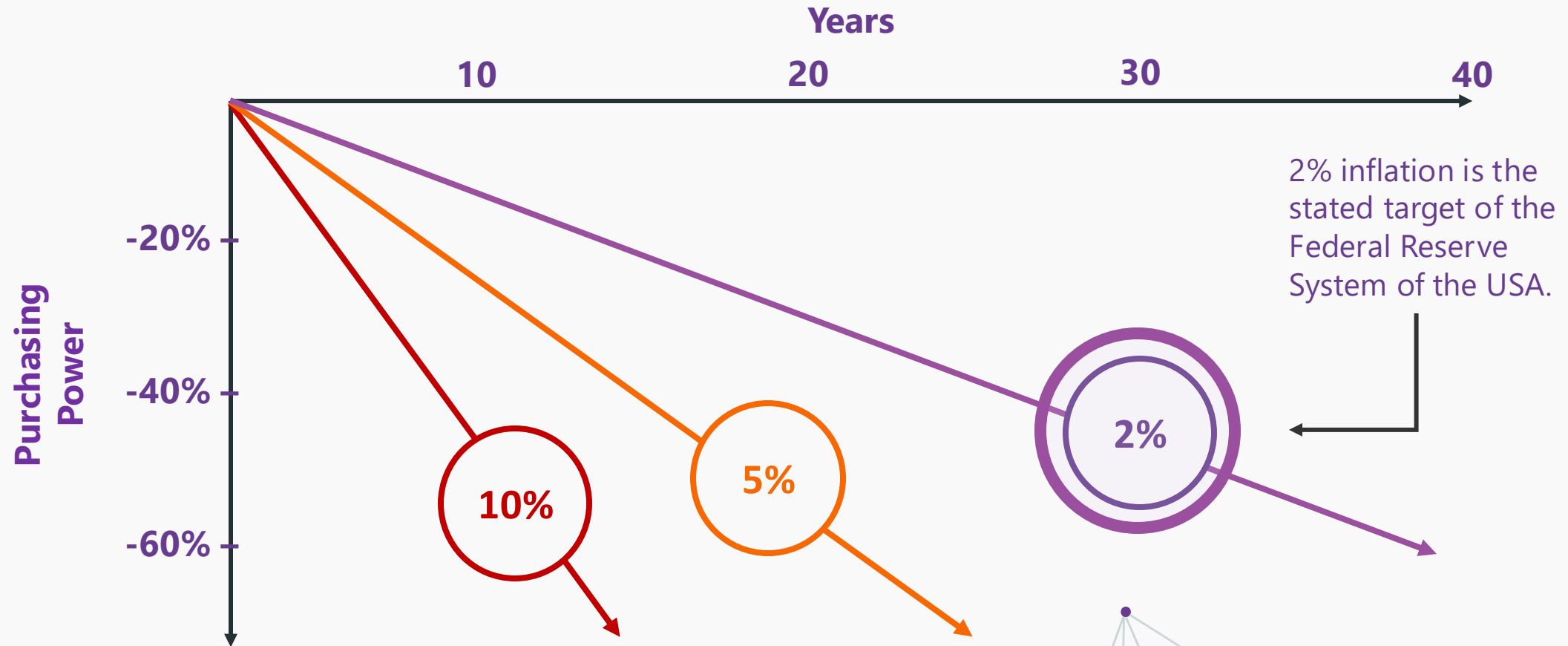
And the cycle repeats...



Without a change in our system and our ability to
intervene, our trajectory will remain.



Impact of Inflation on Purchasing Power



The less
something is
valued, more
of it is needed
for perceived
equitable
transaction.



A pack of 7
nappies going for
8,000,000 bolivars
in a supermarket
in Caracas,
Venezuela (2019).

The less
something is
valued, more
of it is needed
for perceived
equitable
transaction.

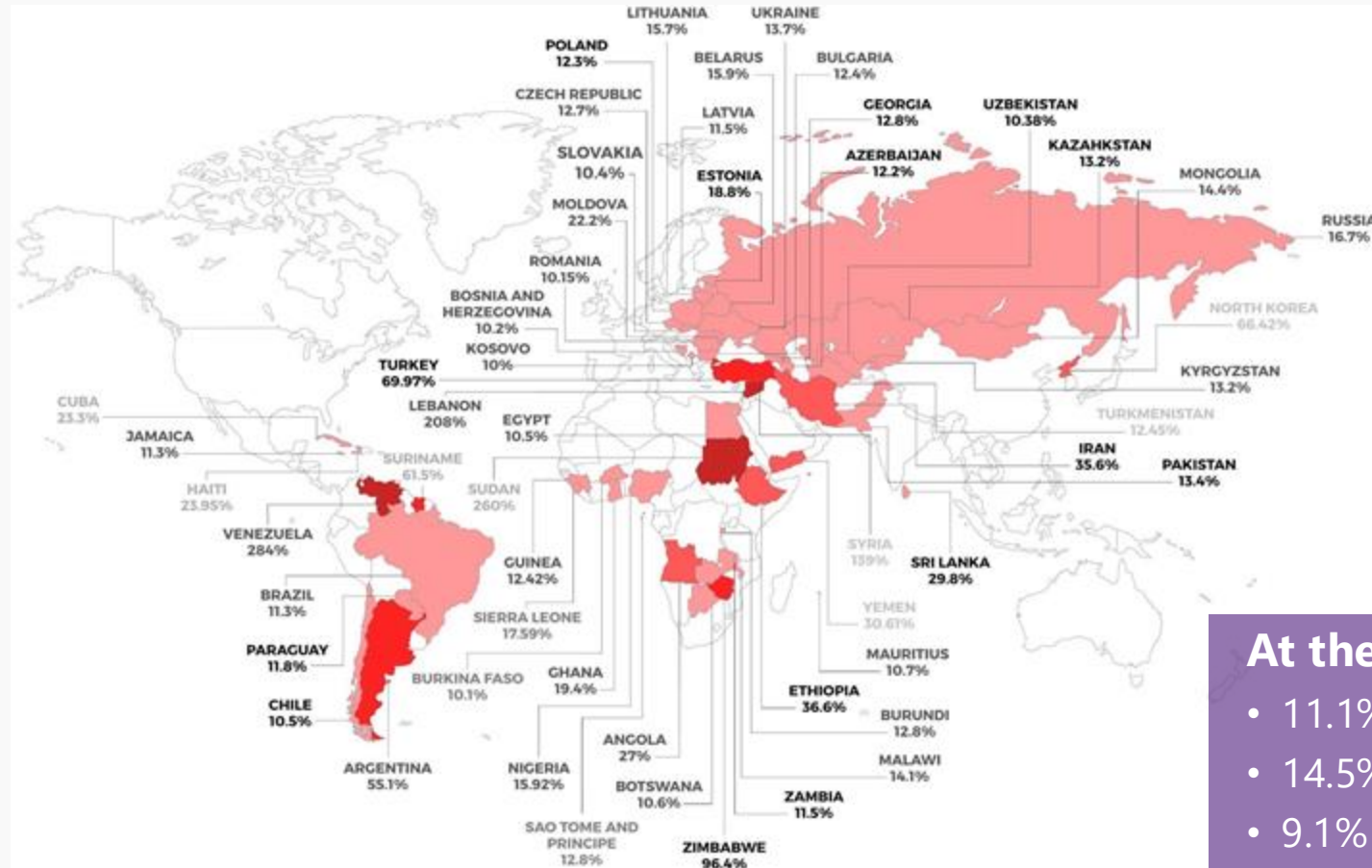


14,600,000
Bolivars for a 2+
kilogram chicken
in Caracas,
Venezuela (2019).



Double Digit Inflation

May 2022, 52 countries with confirmed (official) double-digit inflation representing **1.8 billion people**



At their peak:

- 11.1% in the UK
- 14.5% in the Netherlands
- 9.1% in the US

Source: TradingEconomics.com



**Money matters profoundly!
*It shapes who we are.***



The Link Between Money & Behaviour



Time Preference

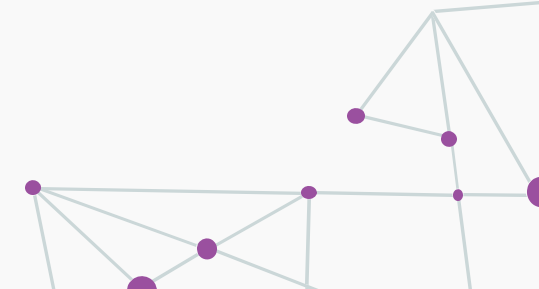
If our money is losing value are we incentivized to save for the future?

Meaninglessness & Apathy

Does deteriorating purchasing power really nurture our sense of control?

Altruistic Endeavours

Can we really be our best selves when we're struggling to meet our most basic needs?







Everything Is Downstream of Money...



Environmental
Degradation



Parent-Child
Bond



Government &
Politics



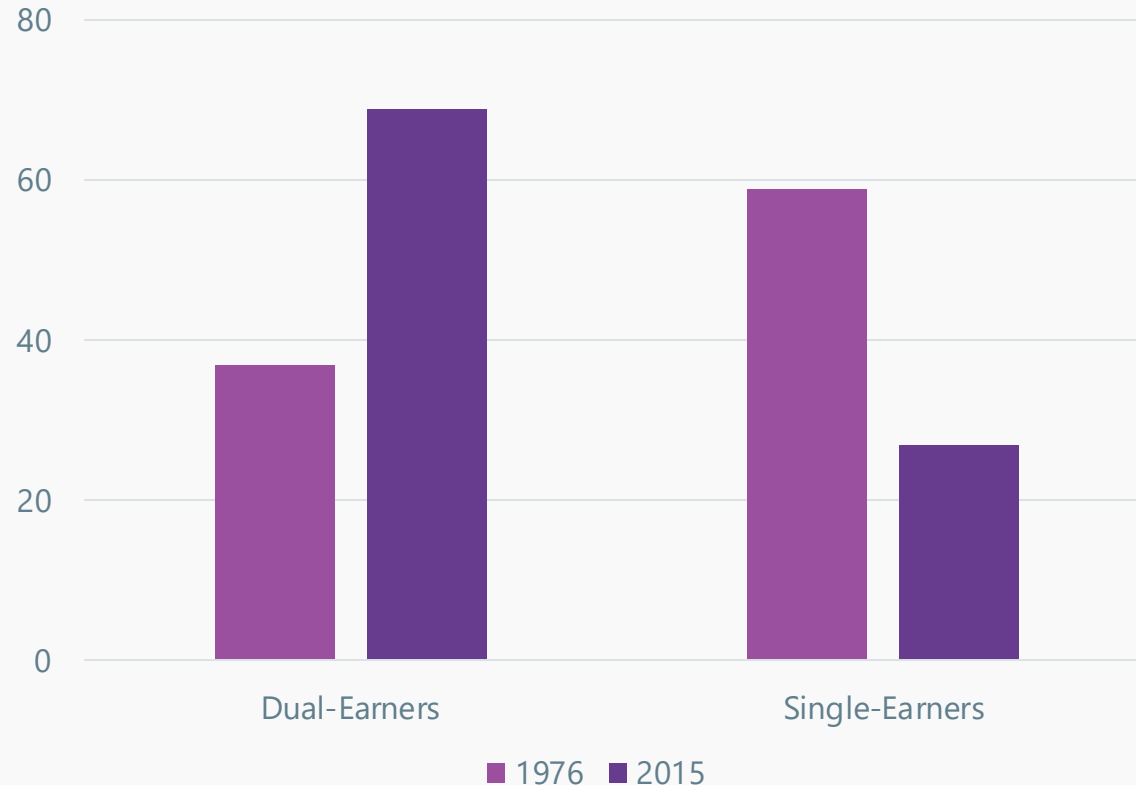
Business
Practices

Environmental Degradation



- With 68% of US GDP driven by consumption, the Federal Reserve's target of 2-3% GDP growth essentially urges increased consumer spending.
- In 1950, global plastic production stood at 2 million tons annually. We are now at more than 420 million tons, with minimal recycling.
- The average product touches six countries before reaching its final destination.

Government & Bond

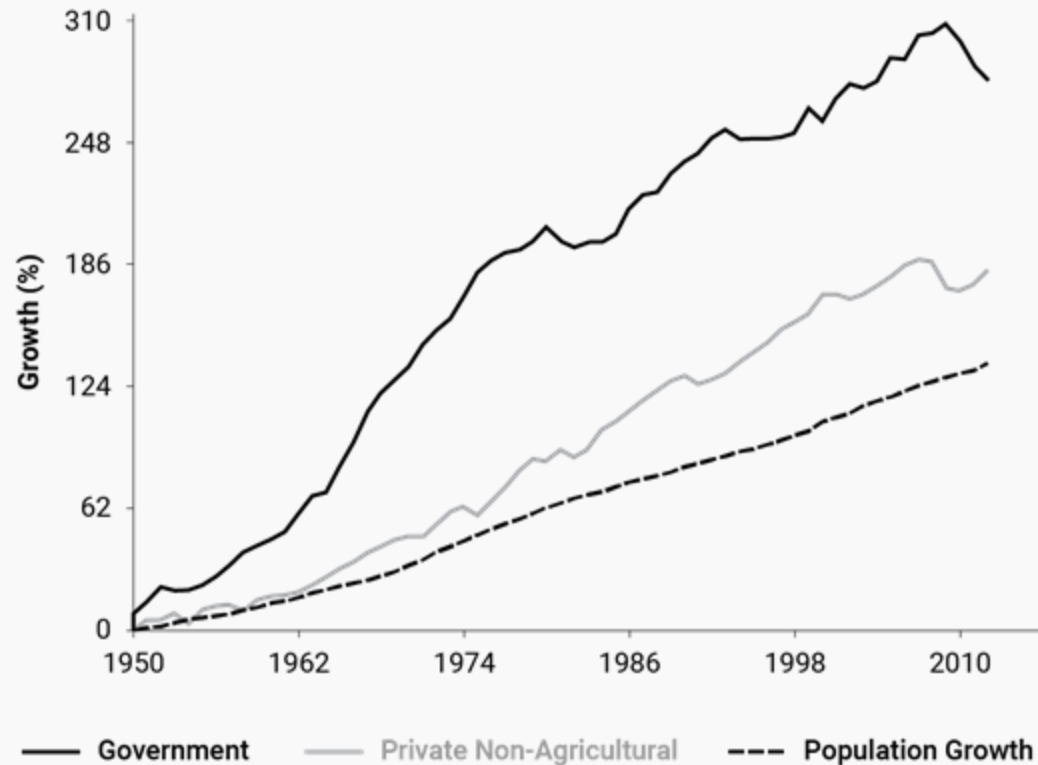


Source: Statistics Canada, Labour Force Survey, 1976 & 2015

- "If the mother experiences constant stress... hormones can have a negative impact on the development of the fetus."
—Kathy Kain, Nurturing Resilience
- Money consistently ranks as the number one stressor in life.
- In 2020, 84% of working mothers couldn't afford to take time off, and 57% had no choice but to keep working.

Government & Bond

Unfettered Government Job Growth



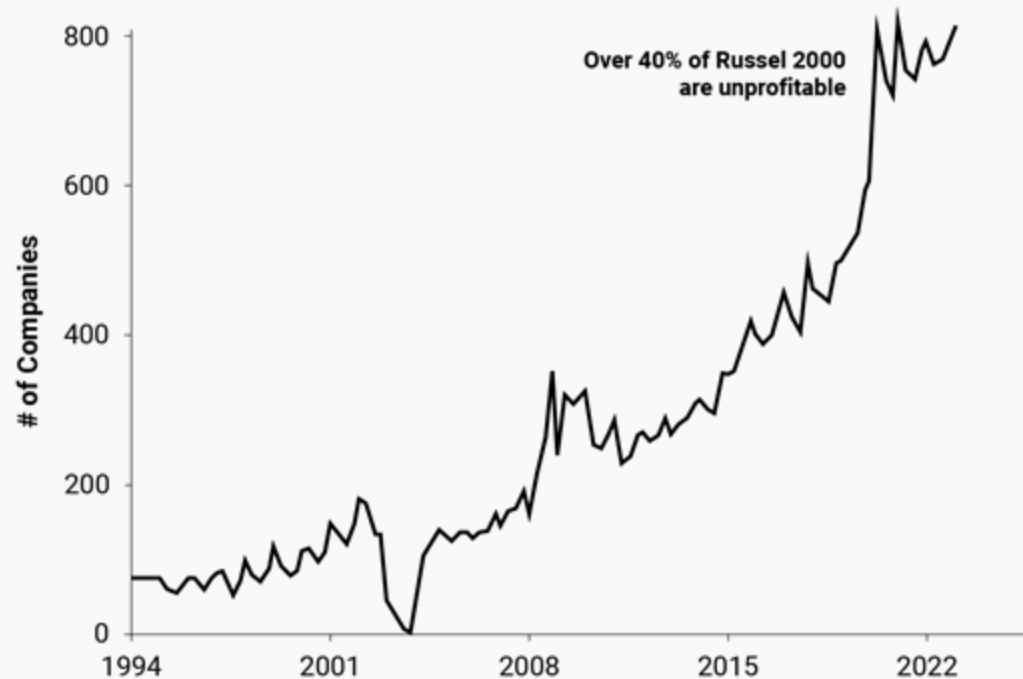
Source: Global Economic Analysis & FinancialSense

- In Canada, government jobs pay 9.4% more than private sector roles, making competition tough.
- 8 out of 10 people globally live in partly-free or not-free jurisdictions, a concerning trend.
- Democracy's dead! Regardless of political leanings, those in power aim to preserve the status quo.

Business Practices

The Rising Trend of Unprofitable Companies

Number of Unprofitable Companies in Russell 2000



Source: Bloomberg, Morgan Stanley Wealth Management GIC as of Sept. 30, 2022

- Intervention misaligns incentives, and businesses feel the effects from all sides!
- More than 20% of all publicly listed US companies are considered zombie companies.
- As of 2022, Apple has spent \$557.39 billion on buybacks over the past decade—more than the market capitalization of 494 of the 500 companies listed in the S&P 500.

"Fix the Broken Money" Simulation

Scenario representing a failing fiat-based system:

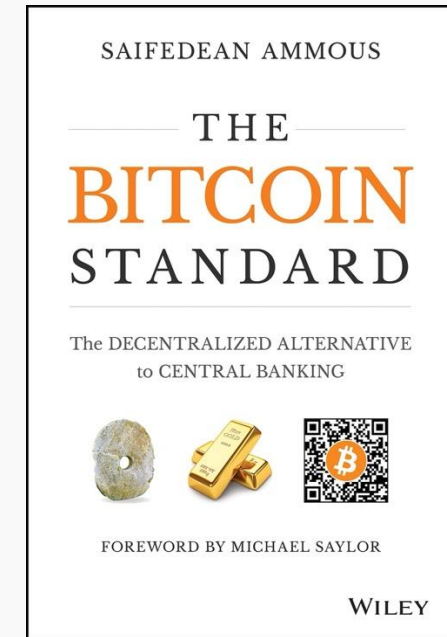
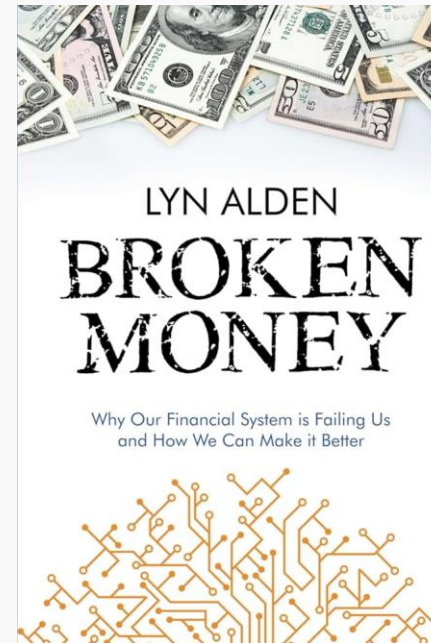
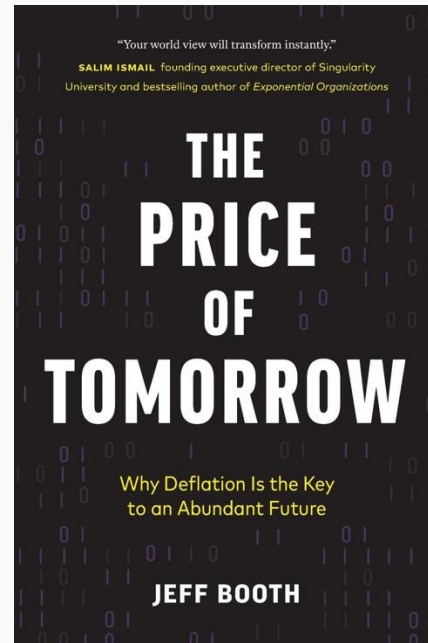
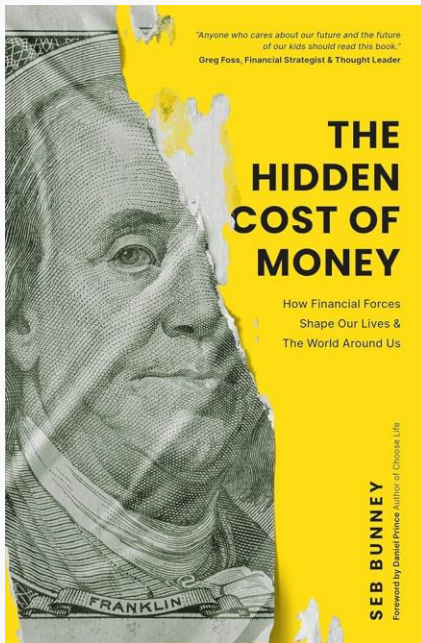
- Hyperinflation in Venezuela
- Bank freezes or limits in Lebanon
- Cross-border remittances with high fees

Task: In 15 minutes, answer:

- What is broken in this scenario?
- How does this affect individuals/society?
- Could Bitcoin solve or alleviate these problems? If so, how?



Recommended Reading



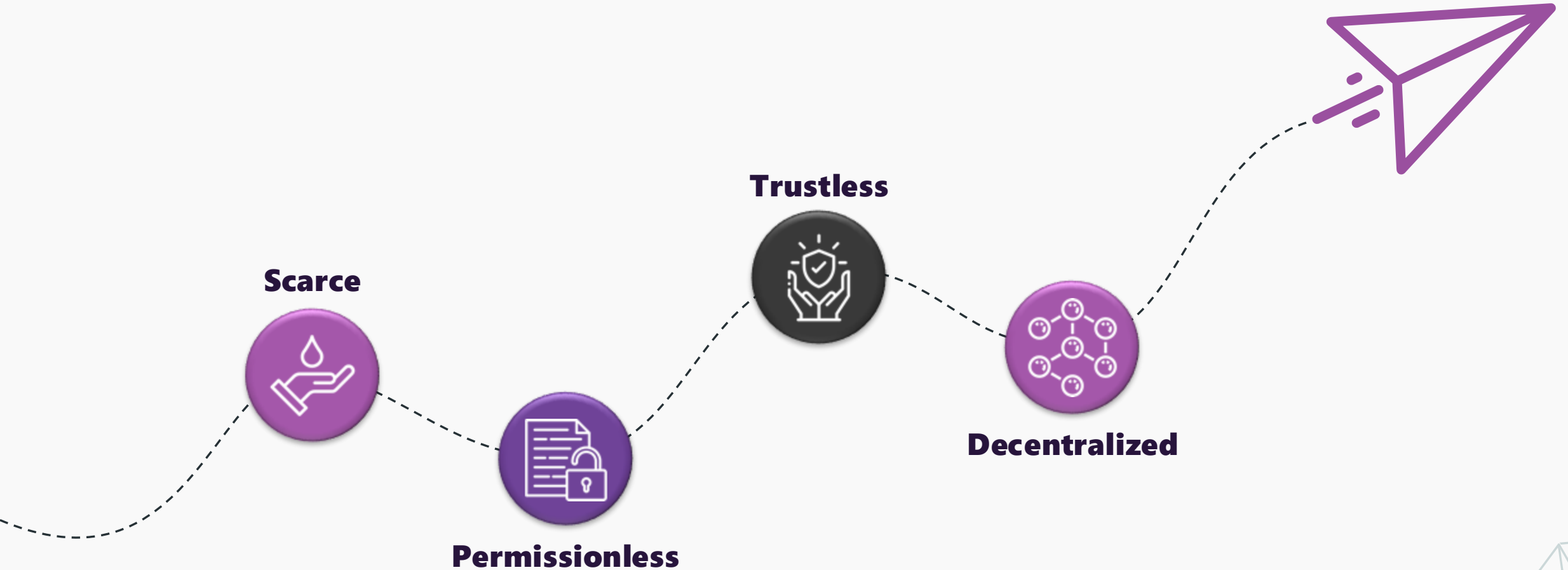


SO...

IS THERE A SOLUTION?

Bitcoin

Better money that favours the owner





2011 - BITCOIN PRICE: \$1

A white bear is seen climbing a tree trunk in a dense, mossy forest. The bear is positioned on the left side of the frame, clinging to the bark. The forest is lush with green foliage and moss-covered tree trunks, creating a serene and naturalistic background. The text is centered over the image in a bold, white, sans-serif font.

THE FOUR STAGES OF ECONOMIC PROSPERITY

A dense forest scene with moss-covered tree trunks and a small white bear cub climbing a tree. The text "STAGE ONE" and "REALITY RE-ALIGNMENT" is overlaid in white.

STAGE ONE

REALITY RE-ALIGNMENT

Bitcoin reflects reality as it aligns prices with true market conditions, leading to falling costs as innovation progresses.

A white bear cub is seen climbing a tree trunk in a dense, mossy forest. The cub is positioned on the left side of the frame, clinging to the bark. The forest is filled with various green plants and moss-covered tree trunks, creating a lush, natural environment. The text "STAGE TWO FOSTERING COMPETITION" is overlaid in the center of the image in a large, white, sans-serif font.

STAGE TWO FOSTERING COMPETITION

With limited intervention, Bitcoin promotes competition which drives innovation and creative destruction—value rises to the top.

Impoverished Afghan women are receiving emergency aid in crypto as the Taliban limits cash withdrawals and millions go hungry

By Joshua Nelken-Zitser



Girls learn to code at the Code to Inspire school in Herat, Afghanistan. Fereshteh Forough

Finding Financial Freedom In Afghanistan

By Alex Gladstein August 26, 2021



Share Facebook Twitter LinkedIn Reddit +

Roya Mahboob — the first female Afghan tech CEO, one of *TIME's* most influential people in the world and one of the first entrepreneurs to introduce Bitcoin to Afghanistan — was seven years old when the Taliban first took over her country and invaded her hometown in 1996.




Ideas Beyond Borders • March 13, 2024

Afghan women break barriers with blockchain

Courses in coding and cryptocurrency give Afghan women a chance to connect with job opportunities outside Taliban control.

Afghanistan Entrepreneurship Innovation Hub News STEM Success Stories Women

A white bear is climbing a tree trunk in a dense forest. The bear is positioned on the left side of the frame, clinging to the bark. The forest is lush with green foliage and moss-covered tree trunks. The text 'STAGE THREE CAPITAL FLOW SYNCHRONIZATION' is overlaid in white, bold, sans-serif font in the center of the image.

STAGE THREE CAPITAL FLOW SYNCHRONIZATION

Bitcoin supports value-driven capital flow, rewarding successful sectors over failing ones— mirroring what society values.

The background of the slide is a lush, green forest. Several tree trunks are visible, some of which are covered in thick, green moss. On the left side, a small, light-colored bear cub is seen climbing a tree trunk. The overall atmosphere is natural and serene.

STAGE FOUR INFORMED DECISION-MAKING

Bitcoin supports informed decision-making by offering clear insights into capital flows and societal values, boosting progress and prosperity.

A white bear is seen climbing a tree trunk in a dense, mossy forest. The bear is positioned on the left side of the frame, clinging to the bark. The forest is lush with green foliage and moss-covered tree trunks, creating a serene and naturalistic background.

Why Bitcoin?

With Bitcoin, capital flows to where it creates the most impact, fostering a more prosperous and resilient economy— *for everyone.*



Why Was Bitcoin Created?



The Problem:

- Centralized banking control
- Inflation and money printing
- High transaction costs & delays

The Solution:

- A decentralized, trustless system

What is Bitcoin?



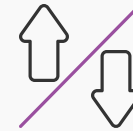
Definition:

Bitcoin is a decentralized digital currency that allows peer-to-peer transactions without intermediaries.



Created by:

Satoshi Nakamoto
in 2009



Comparison to Traditional Money:

Digital, borderless,
finite supply

Bitcoin Pizza Day

Celebrated every May 22nd,
marks the anniversary of the first real-world Bitcoin transaction in 2010, when programmer Laszlo Hanyecz famously spent 10,000 BTC



What Makes Money Good?

In small groups, list and rank the key properties of money (e.g., scarcity, portability, durability, divisibility, recognizability, censorship resistance).

Then discuss:

- How does Bitcoin compare to fiat money across these characteristics?
- Which property is most important in today's world? Why?



How Bitcoin Works

Mining:

The process of validating transactions and securing the network

01

Blockchain Technology:

A distributed ledger that records transactions securely

02

03

Private & Public Keys:

How users send and receive Bitcoin

The Bitcoin Network



Bitcoin Miners

- Confirms transactions into blocks
- Secures the network through proof-of-work
- Introduces new bitcoins into circulation

The Bitcoin Network



Nodes:

- Computers that maintain the blockchain
- Verifies and relays transactions and blocks
- Enforces the rules of Bitcoin (e.g., no double spending)
- Keeps the network decentralized and trustless

The Bitcoin Network

Consensus Mechanism:

Computational Puzzle: Miners compete to solve a cryptographic puzzle (finding a valid hash) using computational power, this process is called Proof of Work.

Block Validation: The first miner to solve the puzzle earns the right to add a new block of transactions to the blockchain.



The Bitcoin Network



Consensus Mechanism:

Security through Difficulty: The puzzle is hard to solve but easy to verify, making it extremely difficult to alter past blocks, which secures the network.

Incentives: Miners are rewarded with newly minted bitcoins and transaction fees, aligning economic incentives with network security.

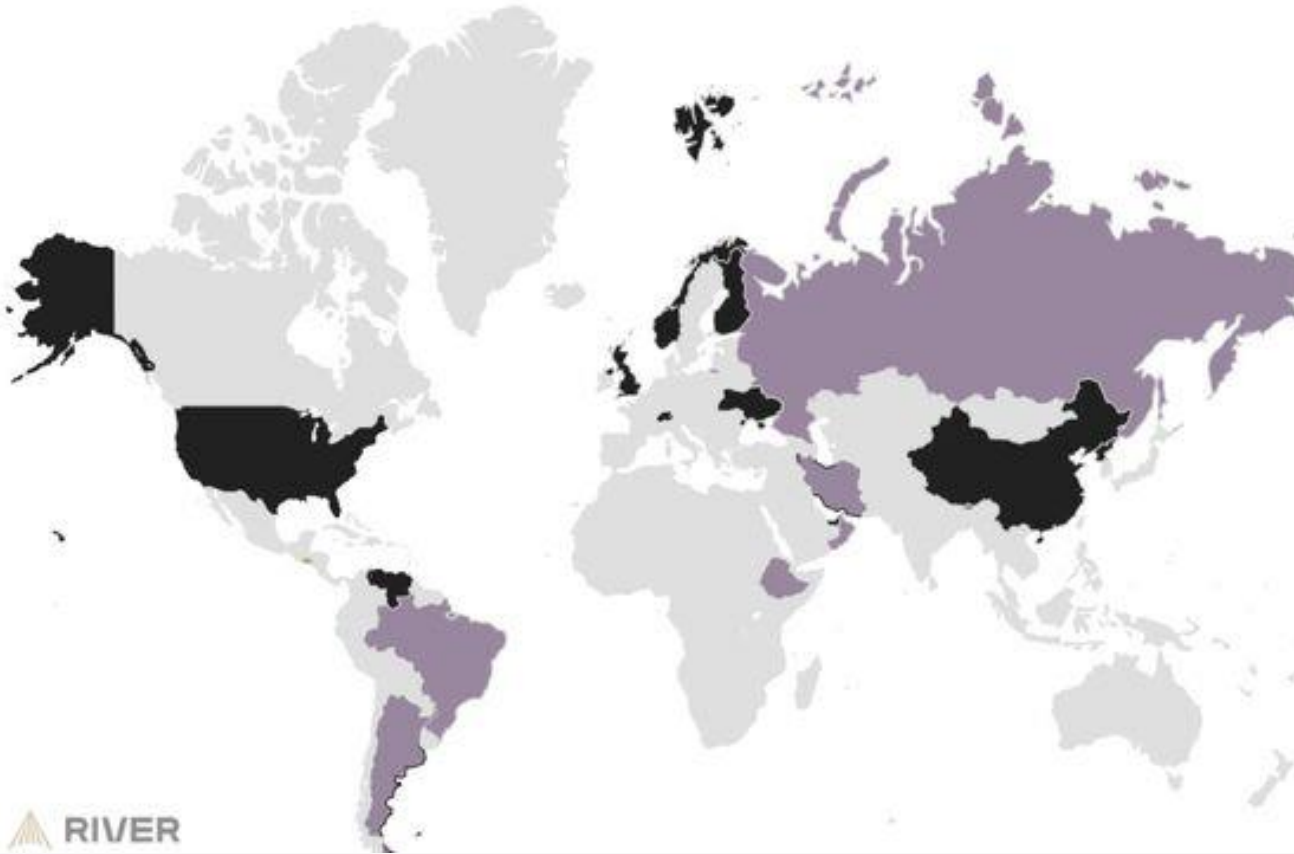
The Bitcoin Network

Consensus Mechanism:

Decentralized Consensus: PoW enables thousands of independent nodes and miners to agree on a single, tamper-proof version of the blockchain without a central authority.



18 Nation-States Estimated to Own Bitcoin



Direct Purchases:

- El Salvador: 6K BTC

State-Backed Mining:

- Bhutan: 11.7K BTC
- Argentina
- Brazil
- Ethiopia
- Iran
- Oman
- Russia

Seizures:

- United States: 198K BTC
- United Kingdom: 61K BTC
- China: 15K BTC
- Venezuela: 240 BTC
- Finland: 60 BTC

Indirect Exposure via Government Investment:

- UAE: 4.7K BTC
- Norway: 3.8K BTC
- Switzerland: 1.1K BTC

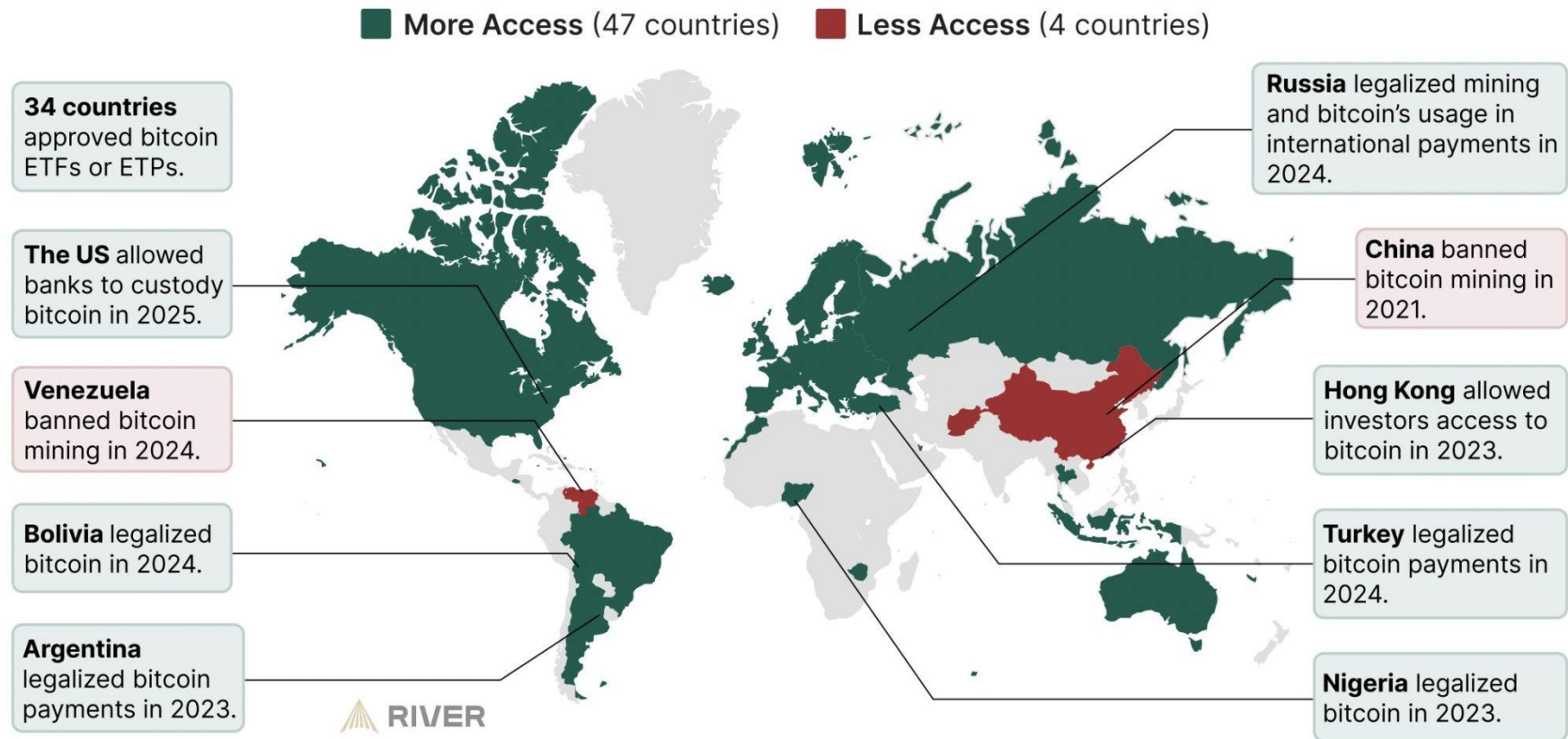
Hacking/Theft:

- N. Korea: 778 BTC

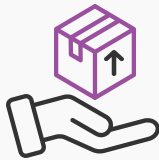
Donations:

- Ukraine

Regulatory Changes to Bitcoin Since 2020



Bitcoin Supply & Scarcity



Fixed Supply:

21 million BTC



Halving Events:

Reduces new BTC
issuance every ~4 years



Impact on Price & Inflation

3.125 new BTC created
every 10 mins (450/day)

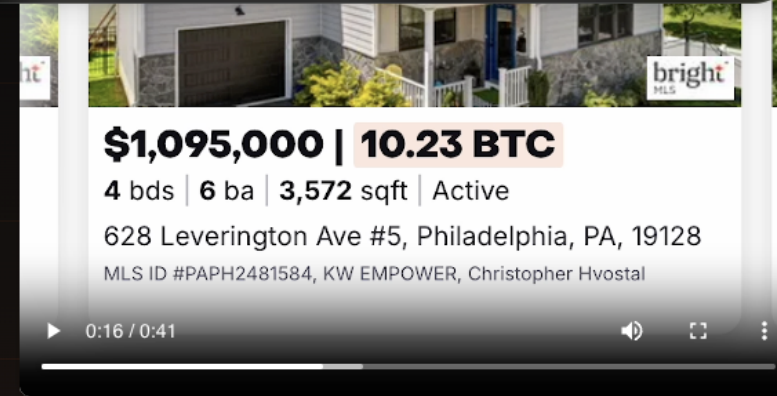


Everything in Bitcoin

Convert prices to Bitcoin as you browse the web.

Opportunity Cost automatically displays fiat prices in BTC or sats, helping you think in a Bitcoin standard.

Install now →



Key Features

See the opportunity cost of Bitcoin



Think in Bitcoin, Not Fiat

Instantly see the true Bitcoin cost of everything. Convert prices from 10+ currencies to BTC or sats in real-time as you browse - no more mental math required.



\$439,900

3 bd | 3,208 sqft
1706 E Passyunk Ave,
Philadelphia, PA



\$439,900

| 4.40 BTC
3 439,900 | 3 ba
Philadelphia, PA



Works Everywhere

From Amazon to Twitter, news sites to local stores - see Bitcoin prices on any website. One extension, infinite Bitcoin price awareness.

Buying & Storing Bitcoin



Where to Buy:

- Exchanges
(Coinbase, Virgo CX, etc.), Peer-to-Peer

Wallets:

- Hot Wallets (Mobile, Web)
- Cold Wallets (Hardware, Paper)

Bitcoin Breakdown: Store of Value vs. Medium of Exchange

Group A: Argue that Bitcoin is best used as a **store of value** ("digital gold").

Group B: Argue that Bitcoin should be optimized as a **medium of exchange**.

Each side should:

- List benefits of their assigned role
- Identify potential challenges or criticisms
- Prepare a short argument for why Bitcoin should prioritize that function



Bitcoin Use Cases

- **Store of Value**
("Digital Gold")
- **Medium of Exchange**
(El Salvador, Lightning Network)
- **Unit of Account**
(Unbanked Populations)



Bitcoin Use Cases



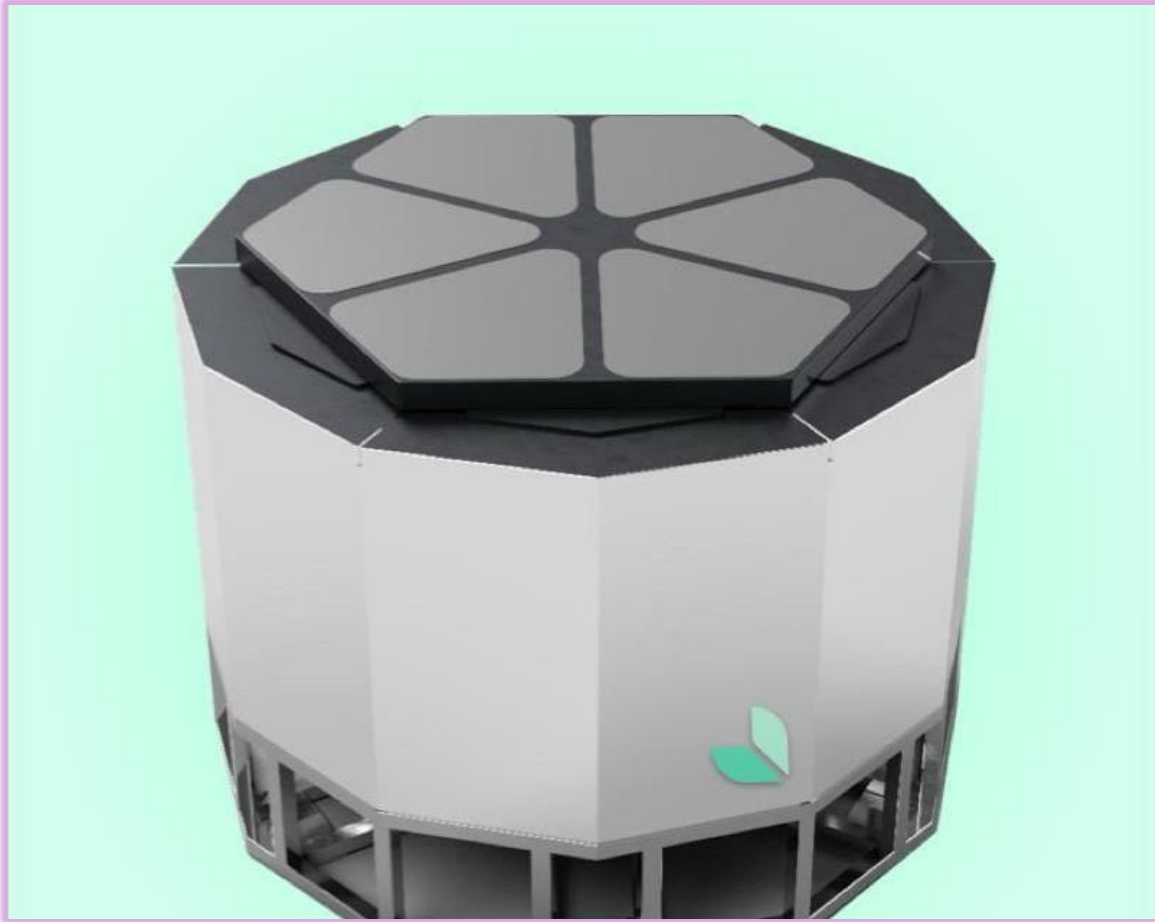
Bitcoin Use Cases



BLOCKCHAIN

Gorillas, militias, and Bitcoin: Why Congo's most famous national park is betting big on crypto

In an attempt to protect its forests and famous wildlife, Virunga has become the first national park to run a Bitcoin mine. But some are wondering what the hell crypto has to do with conservation.



Bitcoin Security & Risks



Security:

- Blockchain immutability
- Cryptographic encryption

Risks:

- Hacks & Scams
- Volatility
- Regulatory Uncertainty

Bitcoin vs. Traditional Finance

Banking vs. Bitcoin:



The Future of Bitcoin



**Institutional
Adoption**



Layer 2 Solutions
(Lightning Network,
Ordinals)



**Potential Regulation
& Challenges**

Layer 2

Layer 2 Scaling Solution: The Lightning Network is built on top of the Bitcoin blockchain (Layer 1) to enable faster and cheaper transactions by handling them off-chain.

Instant Transactions: Payments made through the Lightning Network are **nearly instant**, making it suitable for everyday microtransactions like buying coffee or tipping online.



Layer 2

Low Fees: most activity occurs off-chain, **transaction fees are drastically reduced**, making it practical for sending very small amounts of bitcoin.

Payment Channels: Users open **bi-directional payment channels** that allow them to send and receive bitcoin without needing to record every transaction on the blockchain.



Layer 2

Still Maturing: still under development and adoption is growing, especially in areas like remittances, gaming, and merchant payments, but it faces challenges like liquidity routing and user-friendly interfaces.



NFTs



Ordinals Protocol: allows individual satoshis (the smallest unit of bitcoin) to be "**inscribed**" with **data**, such as images, text, or code—creating NFTs natively on Bitcoin.

NFTs



No Smart Contracts Needed:

inscriptions are directly embedded in Bitcoin transactions using the witness data

Immutable and Permanent: NFTs on Bitcoin are stored **directly on-chain**, they are arguably **more immutable and permanent** than those on other blockchains that rely on off-chain storage or pointers (e.g., IPFS).

NFTs



High Demand and Network Impact: has led to **network congestion and increased fees**, sparking debate about Bitcoin's role—store of value vs. broader digital asset platform.

Cultural and Historical Significance: Bitcoin NFTs carry a sense of **purity and provenance**, as they are minted on the original blockchain. Some view them as **more meaningful or historically important** than NFTs on other chains.

Would You Trust Bitcoin with Your Life Savings?

Imagine you live in a country with unstable currency, and the government is cracking down on dissent.

- Would you convert your savings to Bitcoin? Why or why not?
- What risks would you face?
- Would Bitcoin be safer than fiat or other assets?





Conclusion & Q&A





X @JarrettVaughan

X @TheWeb3Prof



@TheWeb3Prof

