



# The Bitcoin Effect

How to Take Full Responsibility,  
Think Long-Term,  
and Live Smarter and Happier  
with the Mental Bitcoin Operating System

By

Christopher Westra

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Please share far and wide! This is written to help educate the world about this amazing freedom technology.

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# About Christopher Westra

Bitcoin caught Christopher's attention about 2017 because he saw it was helping people in developing countries. He has been doing microenterprise loans through Kiva at <https://Kiva.com> for many years, 300 loans in 84 countries since 2006. He found that Bitcoin was starting to help in these same countries.

He is also the author of the books listed below and many others.

"I Create Reality - Beyond Visualization: How to Use Holographic Creation to Manifest Your Desires"

"Realms of Joy – Time of Light: How to Live in Holographic Time"

Christopher is also the author of 145 Prosperity Poems and 81 Bitcoin Poems (so far). You can see these at <https://ProsperityPoems.com> and <https://BitcoinPoems.pro>

He is married with nine children and three grandchildren, and enjoys writing, hiking, rock collecting, and building rock walls and pathways. With his wife, he enjoys hiking trips to National and State Parks throughout the Western States. Over the years they would like to visit all the United States National Parks.

Christopher graduated from Brigham Young University with a degree in Psychology in 1991. He is a member of the Church of Jesus Christ of Latter-day Saints.

He is a freedom maximalist and promotes limited government.



# Introduction - The Bitcoin Operating System

*“You don’t change bitcoin. Bitcoin changes you.”*

*Max Keiser*

Bitcoin has impacted my life and thought in a powerful way! I noticed that the more I learned about Bitcoin, the more I began to act, and not be acted upon. I began to plan longer term because I knew my money was safe and secure from debasement by my own government.

Day by day I arose more hopeful and happy. I took on physical and mental challenges that I used to whine about or shy away from. I realized that my life was open for me to shape. This all felt very good and powerful, as well as simply productive and efficient.

We need more men and women who can act like strong men and strong women. We have enough victims and whiners and looters, who claim the world owes them.

This is not a technical book about how bitcoin works. I will refer you to some of those at the end of this book.

This is not a book about the details of how to invest in bitcoin. I will refer you to those resources also.

Additionally, this is not a book about how bitcoin helps people in countries who have high inflation, or who live in oppressive regimes, though it does that also.

This is a book about how bitcoin will change YOU, and the personal benefits that you will receive if you adopt the mental bitcoin operating system. I do hope that it will inspire you to search more deeply into Bitcoin.

Here are a few notable people who were also deeply changed by Bitcoin.

Michael Saylor started the software company Microstrategy, and was the CEO from 1989 to 2022. He stepped down from the CEO position to work with Bitcoin and promote adoption. He sees Bitcoin as a way to give economic power and freedom to everyone on the planet.

Another leader is Jack Dorsey, who started Twitter and the payments company Square (now Block). He also stepped down as CEO of Twitter to work on Bitcoin. Jack said about bitcoin: “I don’t think there is anything more important in my lifetime to work on”.

Michael and Jack are both tech engineers and working specifically on lightning, which is

a second layer on top of Bitcoin that enables quicker and more private payments.

Farida Nabourema is from Togo and is promoting Bitcoin to free herself and others from abusive monetary systems. In December of 2022, she organized the first Africa Bitcoin Conference. She recognizes that the ability to move money without government control is necessary for freedom.

Roya Mahboob is a software entrepreneur from Afghanistan and the founder of Citadel Software. She was named to TIME magazine's 100 Most Influential People in the World for 2013 for her work building internet classrooms in high schools. She learned about Bitcoin and discovered that paying her female employees with Bitcoin enabled them to own their own money for the first time.

Samson Mow founded the Canadian video game company Pixelmatic. He now spends his time and energy on Bitcoin, specifically working on Bitcoin adoption by nations. El Salvador is the one example so far, but he is working with other nations also.

Natalie Brunell is an investigative journalist who learned about Bitcoin and attended one of the Bitcoin Conferences. She met some high-profile Bitcoiners and put her journalist skills to work and developed the Coin Stories Podcast, and the Hard Money Podcast (through Swan Bitcoin).

Michael, Jack, Farida, Roya, Samson, and Natalie are simply listed as examples of how Bitcoin can change a person, sometimes so much that they WANT to spend their time promoting it or building upon it.

Most Bitcoiners don't spend their entire life on Bitcoin. They simply save in Bitcoin and enjoy their usual activities and lives. For me, I write books and attract internet traffic to earn money. And in my free time, I enjoy spending time with family, running and hiking, and building rock walls and pathways.

This book is not financial advice - it's simply my own thoughts about how Bitcoin has changed the way I think and live!

Though I won't go into detail about how Bitcoin works, here are some descriptions. Some just call it Freedom Money, and here are the reasons.

Bitcoin is simply software - it's code. What this code created was a shared ledger of ownership of the coins that make up Bitcoin. This ledger is "shared" because it's decentralized, meaning that copies of the ledger exist (and are synchronously updated) on thousands of nodes worldwide.

Bitcoin is available and open to all. You literally cannot ban anyone from using it, so it's permissionless. The record is permanent, meaning that no one can change the ledger,

which makes it censorship resistant. You can't reverse bitcoin transactions.

Because it's open to all and useful to everyone who learns about what it can do for them, it's being adopted quickly! However, it's still early. Check out the "We are here" on the chart below (from Bitcoinke.io)



They are estimating a ten percent adoption by 2030, but I think it will happen earlier than that.

People don't tend to grasp the revolutionary nature of Bitcoin as quickly if they live in a country where they have a lot of good financial options. They don't see the usefulness because they are "doing OK" with their current financial system.

However, millions of people in countries with financially oppressive governments see the importance of Bitcoin immediately! The use of Bitcoin spreads quickly in these countries, such as Lebanon, Nigeria, Argentina, Venezuela, and many African countries.

This financial oppression can be outright bans or controls on who can use money, and for what. It can also simply be high inflation, more properly termed debasement of the current value of the money.

So let Bitcoin change you too - and thanks for reading. I'll end this introduction with Bitcoin Poem 032 - Bitcoin Changes Me. You can see this poem on a background by

going to <https://BitcoinPoems.pro> and clicking on Poem 032. You can sign up on the main page to receive each weekly page as it is written.

Bitcoin increases my clarity  
As it shines light and honesty  
On what money can truly be

This clarity - it spreads through me  
And helps me in my actions see  
Those which bind, or set me free

Bitcoin builds my strength of mind  
As my incentives get aligned  
To hold my assets as designed

And so I find that I'm inclined  
To conquer tasks that I'm assigned  
And master skills that I've outlined

Bitcoin questions the status quo  
Of the modern monetary show  
To create money on endless flow

This helps me question what I know  
Search for truth, and insight grow  
These changes does Bitcoin bestow

## Chapter 1: Three Things to Remember about Bitcoin

*"I think the bitcoiners have been predicting this for a long time. Speaking for all the bitcoiners, we feel like we are trapped in a dysfunctional relationship with crypto and we want out."*

Michael Saylor - Author of "The Mobile Wave"

### 1. Bitcoin is NOT the Same as Crypto

Bitcoin is not the same as "Crypto", Bitcoin is unique, groundbreaking, and revolutionary. Yes, it now has 22,775 copycats as of today. There will be more tomorrow. I'm not exaggerating - that's the real number. Some of these



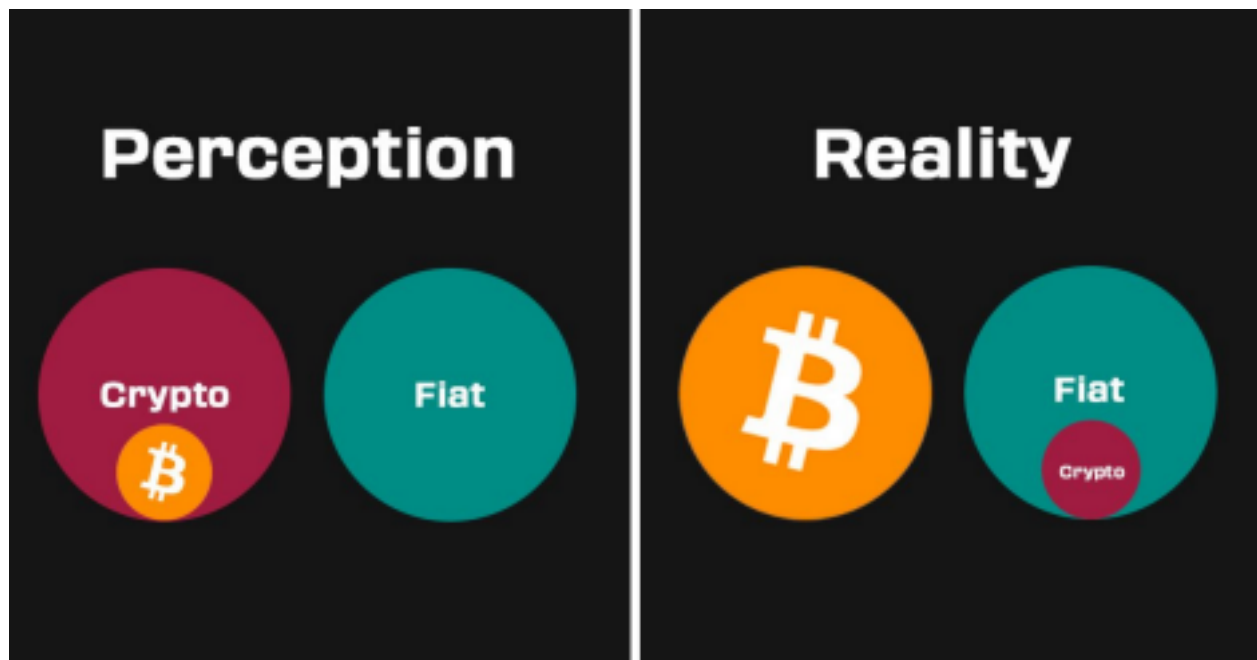
cryptocurrencies claim to be shinier and faster and better than Bitcoin.

Most Bitcoiners (myself included) had a phase where they were interested in many coins, and then after much research ended up with just Bitcoin. No other coin is as decentralized. No other coin has as critical a mission as Bitcoin. This mission is to be a secure, un-debaseable, permissionless world reserve asset for everyone. No other crypto project can do that.

I could write an entire book about the differences between Bitcoin and Crypto, but this will have to suffice for now. Be wary of who you listen to. Ask yourself if they have a vested interest in promoting whatever new coin they are telling you about.

Nearly every crypto project is centralized enough that it can be controlled by a few people or a group. This centralization makes it more like fiat money, and different from Bitcoin, even if they happen to use a “blockchain”. See the image below and compare the perception on the left, and the reality on the right. This image is from Alan Watts on Twitter.

<https://twitter.com/alanbwt/status/1592986718722220032>



## 2. Self-Custody your Bitcoin

It's not too hard to self custody your Bitcoin. You'll hear people saying that it's too difficult. I'm not old, but I am older than your typical Bitcoiner (I'll turn 57 years old in 2023). I learned how to do it, and you can too.

Basically, this means having your private keys on a hardware wallet that you control - I'll add some links in the resources to help you. BTCSessions has some great tutorials. In this life you learn how to do things - register a car, open a bank account, get a credit card. Yes, there are some new ideas and you want to do it right, but YOU CAN do it.

The alternative is to buy your bitcoin on an exchange, such as Coinbase, and then leave it there. Then all you really have is an IOU, because Coinbase owns your bitcoin. They may give it to you when you want it, but they may not. I lost bitcoin on Celsius, a company that went bankrupt in 2022, along with FTX, Voyager, and several other major crypto exchanges.

You can believe I learned how to hold my own keys after that! Now I control my finances and not some company who may or may not keep it safe.

As a reminder, your bitcoin isn't actually "ON" your wallet. That's a misconception. The bitcoin is always on the Bitcoin blockchain, and your private keys proving your ownership are on the hardware wallet.

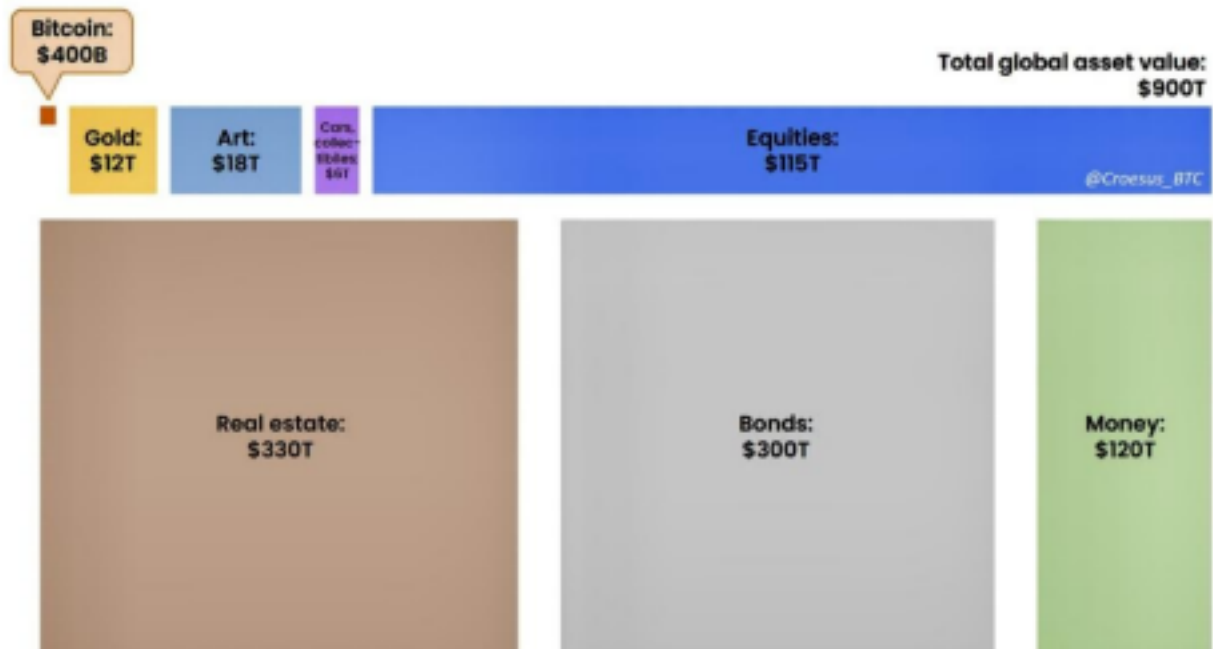
### 3. You are Still Early to Bitcoin!

Here are some stats to show that you are still early to Bitcoin:

Only 2% of the world's population owns Bitcoin. This means that there is still a huge potential for growth in the adoption of Bitcoin.

The total market capitalization of Bitcoin is still relatively small compared to other asset classes. For example, the total market capitalization of gold is over \$10 trillion, while the total market capitalization of Bitcoin is only around \$1 trillion. This means that there is still a lot of room for Bitcoin to grow in value.

Here is a chart from Jesse Myers that shows the value in different asset categories. <https://jessemyers.substack.com/p/bitcoins-full-potential-valuation>



Bitcoin is still in its early stages of development. The Bitcoin protocol is constantly being improved, and new applications for Bitcoin are being developed all the time. This means that the potential of Bitcoin is still largely unknown.

Bitcoin is a global currency. It can be used to send and receive payments anywhere in the world. This makes it a very attractive option for people who want to avoid the fees and delays associated with traditional payment methods.

Bitcoin is a scarce asset. There will only ever be 21 million Bitcoin in existence. This makes it a valuable asset that is likely to appreciate in value over time.

Overall, the evidence suggests that people are still early to Bitcoin. The potential for growth in the adoption of Bitcoin is huge, and the value of Bitcoin is likely to continue to appreciate in the future.

## Chapter 1 Review Questions

The answers will be at the end of this chapter. Really think about these and commit to an answer!

Question 1: What does it mean to self-custody your Bitcoin?

- A) It means giving your Bitcoin to a third-party custodian for safekeeping.
- B) It means storing your Bitcoin on an exchange for easy access.
- C) It means keeping your Bitcoin on a hardware wallet that you control.
- D) It means giving your Bitcoin to a friend to hold for you.

Question 2: Why is Bitcoin so unique compared to other Crypto projects?

- A) It has the most support from the news media and journalists
- B) It has the decentralization necessary to provide a secure and permissionless base level asset for the world
- C) It has the fastest transaction speed of any cryptocurrency.
- D) It has the most advanced smart contract capabilities of any cryptocurrency.

## Practical Exercise

I've got two quick action items here to increase your awareness and self confidence!

1. Google "Bitcoin Hardware Wallets" and take 60 seconds to peruse the results. This is merely to make you aware that they exist and are used by millions of people.


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2. Now go to YouTube and enter "bitcoin hardware wallet tutorial" and take another 60 seconds to peruse the options there. You've got help when you're ready to learn how to set up a hardware wallet.

## Answers to Chapter 1 Review Questions

Question 1 - Correct answer: C) It means keeping your Bitcoin on a hardware wallet that you control.

Question 2 - Correct answer: B) It has the decentralization necessary to provide a secure and permissionless base level asset for the world

A long-exposure photograph of a starry night sky, showing a person kneeling on a dark path, holding a glowing blue light. The person is wearing a blue hat and a dark jacket. The background is a dark, silhouetted landscape under a starry sky.

It might make sense to get some  
In case it catches on  
Satoshi said of Bitcoin  
At Bitcoin's earliest dawn

-Christopher Westra

BitcoinPoems.pro

## Chapter 2: Take Responsibility

*“Your keys, your bitcoin.  
Not your keys, not your bitcoin.”*

Andreas Antonopoulos - Bitcoin Proponent

*It's not just about freedom. It's about responsibility. Bitcoin is “Responsibility go Up” technology. To be a bitcoiner is to be an individual who can balance freedom and responsibility.*

Aleksander Svetski

### Take Ownership

Let me start with a personal story here. For the past decade I've had my taxes done by a tax professional. I thought it was too complicated with my business income and then being into crypto made it even more complex. In early 2023 I wanted to finish up my taxes quickly and off my mind. Tax professionals don't care if you want to finish up quickly. I had some simple questions and could not get a reply, day after day.

Something inside me just awakened and said, “Just learn it and do it yourself! You are the ONLY person who will get your taxes done on your timeline. Take responsibility!” So I acted on this and in nine hours over two days my taxes were done.

I had to learn a lot - but it felt good to take ownership and commit to my timeline and goals. My tax refunds were in my bank account within the week.

Bitcoin is built on the philosophy of responsibility.

One of the core tenets of Bitcoin is that users have complete control over their own money! Bitcoin transactions are peer-to-peer, meaning there is no central authority controlling the movement of funds. This gives users a greater sense of responsibility over their finances and encourages them to take ownership of their financial decisions.

This is what is meant by the quote by Andreas at the start of this chapter. Here it is again.

“Your keys, your bitcoin.  
Not your keys, not your bitcoin.”

## Andreas Antonopoulos - Bitcoin Proponent

Bitcoin is decentralized, meaning it is not controlled by any government or financial institution.

### Power and Responsibility

This gives users the power to be their own bank and make financial decisions without the influence of external parties. With this power comes greater responsibility, as users must take the time to educate themselves on how to properly manage their funds and protect themselves from potential risks.

When you hold your own money, you do that with some code words that are called “keys”. Your Bitcoin always remains on the Bitcoin Blockchain, and your KEYS prove that you can access it, and move it or spend it when you wish.

Bitcoin's cryptographic security measures provide users with a high degree of protection against fraud and theft. However, users are also responsible for keeping their private keys safe, which are required to access their funds. So Bitcoin owners need to take responsibility for the security of their own assets and practice good security habits.

Bitcoin's blockchain technology provides a transparent ledger of all transactions, which can be viewed by anyone. This makes it difficult for users to engage in fraudulent or illegal activities without being caught. The transparency of Bitcoin also encourages users to take responsibility for their actions and make ethical decisions.

So as I found in my own life, the philosophy behind Bitcoin promotes personal responsibility by giving users control over their own finances, promoting security, and fostering transparency.

Many of us live in countries with “caretaker” institutions and they do provide benefits in some ways. However, this has also made us weaker and more vulnerable as we hand over more and more of the ownership for our own lives.

### Chapter 2 Review Questions

The answers will be at the end of this chapter. Really think about these and commit to an answer!

Question 1: Which of the following statements accurately describes the decentralization of bitcoin?

- A) Bitcoin is owned and controlled by a single organization.
- B) Bitcoin transactions are processed by a centralized authority.
- C) Bitcoin is subject to government regulations and interventions.
- D) Bitcoin is maintained by a network of users and nodes.

Question 2: Which of the following statements accurately describes how Bitcoin promotes personal responsibility?

- A) Bitcoin allows users to remain anonymous and avoid accountability for their transactions.
- B) Bitcoin transactions can be easily reversed, making it less important for users to be careful with their money.
- C) Bitcoin encourages users to secure their own private keys and be in charge of their own funds.
- D) Bitcoin relies on a central authority to manage and protect user funds.

## Practical Exercise

Ask yourself which areas of your life you take full responsibility for? Write down three areas or aspects of your life where you feel good about your level of ownership?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

Now, which areas of your life do you need to increase responsibility for? This could be a large area of your life, for example Finances or Health Care. Or it could be a specific project, as in my case - Fix the broken sprinklers! Write down at least three below.

1. \_\_\_\_\_
2. \_\_\_\_\_



3. \_\_\_\_\_

## Answers to Chapter 2 Review Questions

Question 1 - The correct answer is D) Bitcoin is maintained by a network of users and nodes.

Question 2 - The correct answer is C) Bitcoin encourages users to secure their own private keys and be in charge of their own funds.

## Chapter 3: Think Long-Term

*“Sound money allows people to think about the long term and to save and invest more for the future. Saving and investing for the long run are the key to capital accumulation and the advance of human civilization.”*

Saifedean Ammous, *The Bitcoin Standard: The Decentralized Alternative to Central Banking*

### Time Preference

You may or may not have heard of the term “Time Preference”, but you’ll understand the principle.

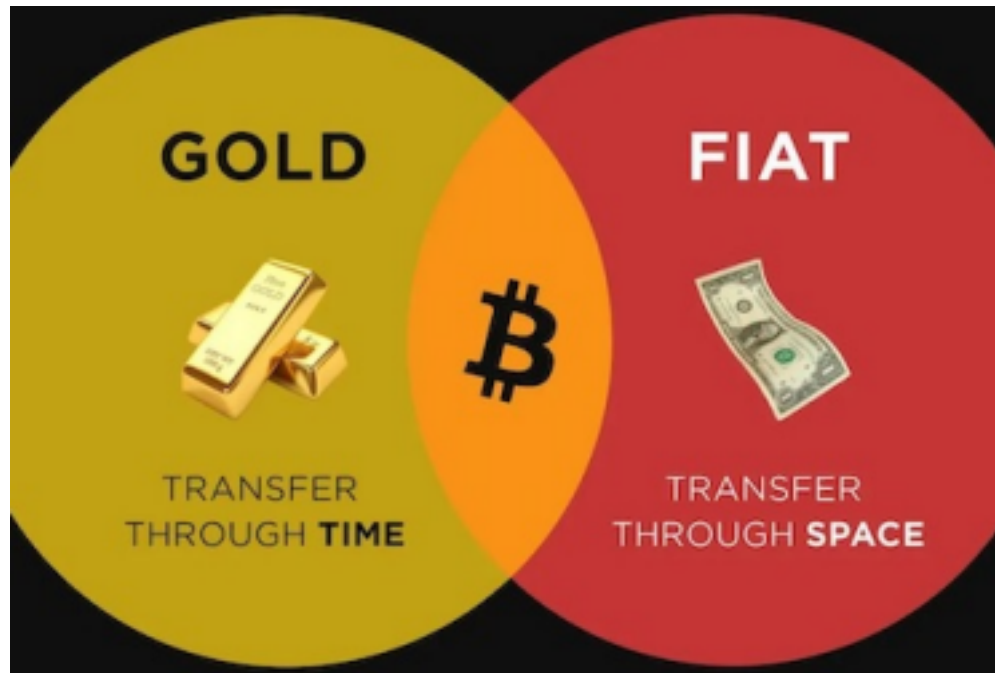
High time preference thinking and planning is more concerned with the needs of the present moment. Low time preference thinking delays present gratification and places more emphasis on future needs, and planning long term.

I think it’s more clear to say short term time preference and long term time preference, but hey, I didn’t make up the terms. Fiat money with high inflation encourages people to focus on the present needs because their money is losing value. It’s hard to plan long term when you can’t store your wealth in anything where it will keep its value.

High time preference people are not very disciplined, and if you look around you can see this in most societies today. For a person (or a family, or society), to achieve big dreams and large goals requires that you plan and think long term. This often means working for years, and sacrificing some short-term pleasures.

Check out the image below. Gold was good at transferring value through time, but not so portable. Therefore, gold was not ideal for transferring value across the world. Fiat was built on top of gold originally (when we were on the gold standard), and it helped fix gold's portability problem. However, it led to many other problems.

Bitcoin can transfer value across time AND across space, and doesn't have the drawbacks of fiat.



## How Bitcoin Helps You Think Long-Term

Bitcoin has a fixed maximum supply of 21 million coins, which makes it a deflationary currency. Because of these unique properties, bitcoin can inspire long-term thinking in a person in several ways:

The main way is simply by saving in Bitcoin; Its finite supply and its potential to increase in value over time can encourage people to invest in it for the long term. This approach requires patience, discipline, and a long-term mindset. Bitcoiners often talk about how this mindset starts to influence every area of their life, and not just finances. When people complain about the volatility of Bitcoin, they are simply looking at it within a short time frame.

Bitcoiners who have mentally adopted a long-term view remain confident in its long term growth despite price volatility.

Building on the Bitcoin network also requires a long term view. Bitcoin's decentralized nature and open-source code make it possible for people to build applications and services on top of the Bitcoin network. This approach requires a long-term vision for the potential of the Bitcoin network and the willingness to invest time and resources to develop new ideas. Those who commit to building on Bitcoin start to think more long-term in many facets of their lives.

Education and Adoption: Bitcoin's complex technology and its potential to revolutionize the financial system require education and advocacy to help people understand its

benefits. This approach requires a long-term perspective on the potential impact of

Bitcoin and the willingness to invest time and effort in educating others.

I feel called to help in this education process with my Bitcoin Poems and this book.

Overall, Bitcoin's unique properties and potential for growth can inspire long-term thinking in individuals who are willing to invest their time and resources in it.

## Chapter 3 Review Questions

The answers will be at the end of this chapter. Really think about these and commit to an answer!

Question 1: Which of the following is a way that Bitcoin helps you think long-term?

- A) Encourages short-term thinking and impulse buying
- B) Provides instant gratification and quick profits
- C) Discourages investment and savings
- D) Inspires holding for the long-term, regardless of short-term price fluctuations

Question 2: Which of the following best describes an advantage of thinking and planning long term?

- A) It allows you to focus only on short-term gains.
- B) It can lead to better decision-making and risk management.
- C) It can limit your opportunities for growth and development.
- D) It increases the likelihood of impulsive decisions.

## Practical Exercise for Long Term Thinking

Write a ten years in the future letter to someone. Before I started my business in 2005 I worked as a counselor in a troubled youth facility and in a prison. I've had thousands of these youth and adults write a ten years in the future letter. It really makes you think about what you want!

Get a piece of paper. Think of someone to write to, and add their name, and the date.

For example, “Hey Brian, it’s been a long time and it’s now 2033. Let me catch you up on my life for the last ten years.”

Dream big, and describe some of what you want to accomplish, but in the letter it should be written in the past tense, as if you’ve already accomplished it.

For example, “I started my catering business in 2025 and I’ve got 20 employees now. It’s doing really well financially.” or “Cherise and I moved to our ranch in 2024 and then in 2025 some other family members came here and built a cabin near us. It’s so nice to have space and freedom to do what we want.”

Technology is advancing at an incredible rate, so feel free to throw some futuristic ideas or tech in your letter also.

Once you have this vision - you’ll find that it draws the situation and people who can help you achieve it. You’ll find your behavior changing naturally also.

But it can also help to consciously do some backcasting. Yes, that’s really a word. Backcasting is when you start with a desired future outcome and work backward to identify the steps needed to achieve that outcome. This exercise can help you develop a long-term strategy and identify potential obstacles along the way.

## Answers to Chapter 3 Review Questions

Question 1 - Correct answer: D) Inspires holding for the long-term, regardless of short-term price fluctuations

Question 2 - Correct answer: B) It can lead to better decision-making and risk management.

## Chapter 4: Live Smarter

*“According to Cantillon, the beneficiaries from the expansion of the money supply are the first recipients of the new money, who are able to spend it before it has caused prices to rise. Whoever receives it from them is then able to spend it facing a small increase in the price level.*

*As the money is spent more, the price level rises, until the later recipients suffer a reduction in their real purchasing power. This is the best explanation for why inflation hurts the poorest and helps the richest in the modern economy.”*

Saifedean Ammous, *The Bitcoin Standard: The Decentralized Alternative to Central Banking*

### Critical Questioning

Bitcoin is a new technology that requires a certain level of understanding and critical thinking to grasp. Nearly all Bitcoiners notice that over time, they start to think more clearly in other areas of their lives as well as finance! This doesn't mean that we have a monopoly on the truth, but Bitcoiners are much more likely to question things and think critically.

As you learn that Bitcoin is sound money because its issuance is known and capped, you see clearly that fiat money is not sound and that freely printing more of it causes debasement of the currency. You simply see things more clearly.

When you start to learn about how the current money system favors those in power and other rich people, you start to question what you've been taught about finances. And as you question what you've been told about money, you start to question what you've been told is true about education itself, the news media, food, health, priorities, government programs, and much more.

Just in finances, you start to see that the current money system favors those in power in several ways:

1. **Wealth inequality:** The current money system often results in wealth inequality, where a small group of people control a disproportionate amount of wealth and resources. This gives them more power and influence over the economy and society, allowing them to shape policies and decisions in their favor.

2. Access to capital: Those who have access to capital can invest in businesses and assets that generate more wealth, creating a cycle of increasing wealth and power. However, those who lack access to capital are often left behind and unable to participate in the same opportunities.

3. Control over financial institutions: Those in power often have significant control over financial institutions, such as banks and investment firms. This allows them to influence lending practices and investment decisions, potentially benefiting themselves and their networks.

4. Political influence: Wealthy individuals and corporations can use their financial resources to influence political decisions and policies, often to their own benefit. This can give them an unfair advantage over others who lack similar resources.

Overall, the current money system can create and reinforce power imbalances, favoring those who already have money. Bitcoin, on the other hand, is a great equalizer. It's true that some people who adopted it early have more bitcoin than others, but that doesn't mean that they can change the rules in their favor!

Since Bitcoin is a controversial topic and some groups have an incentive to maintain the current money system, there exists a lot of misinformation and FUD (fear, uncertainty, and doubt) surrounding it. Learning to analyze information critically and make informed decisions based on facts and evidence can help you navigate complex issues in all areas of your life.

## Bitcoin Exposes Incentives

Bitcoiners have a common saying "Bitcoin exposes incentives", meaning that it helps you see more clearly through propaganda and fake news because incentives are more clearly seen.

You can also see other people's incentives more clearly. For example, Jamie Dimon, CEO of JPMorgan Chase, doesn't like Bitcoin. That's expected - he's made his money in the traditional fiat system and the Cantillon effect has been his good friend! The Cantillon Effect is described in the quote at the beginning of this chapter. He has every incentive NOT to accept Bitcoin but to further the present monetary system.

Jamie famously questioned how Bitcoiners know that there will only be 21 million bitcoin on the network. For such a smart man, it's a silly question. It's OK to ask, but there is an answer, which is that it's governed by code and math. That comment revealed how disingenuous he is, because with five minutes of real study he could find the answer. He didn't throw out the question because he's open to the answer, he threw it out because

he wants to sow doubt in people's minds.

I can answer Jamie's question, and he could connect with any of the experts listed in the resources who can answer it better than I could.

## The Bitcoin Nexus

A nexus is a central point that ties things together.

Bitcoin does take a bit of understanding because it's at the nexus of technology, history, economics, politics, computer science, finance, cryptography, forms of government, game theory, physics, energy, engineering, and more.

You don't need to be an expert in all these to understand Bitcoin. However, people who start to learn seem to be drawn ever deeper down the "rabbit hole" of Bitcoin, as Bitcoiners commonly say.

Overall, learning about Bitcoin can help you develop a range of skills and knowledge that can be applied to other areas of your life. It requires a certain level of curiosity, critical thinking, and a willingness to learn, which are all valuable skills to have in any area of your life.

## Chapter 4 Review Questions

Question 1: What does it mean that Bitcoin exposes people's incentives?

- A) It reveals what people want to buy with Bitcoin
- B) It shows how much Bitcoin someone owns
- C) It exposes the motivations behind everyone's actions
- D) It allows people to anonymously use Bitcoin

Question 2: How does the current money system favor those in power?

- A) They receive the new money first due to the Cantillon Effect
- B) Those in power have some control over financial institutions and policy



C) Wealthy people can use resources to influence legislation to their benefit

D) All of the above

## Practical Exercise for Living Smarter

Your exercise for thinking smarter is to increase the breadth of your worldview. For example, I subscribe to one newsletter that might be considered “far-right” here in the United States. And I subscribe to another newsletter that is more “far-left”.

I don’t take time to read them all the time, but I do here and there and it keeps my mind open and working and not simply listening to those who already agree with me on issues. The different way they can interpret the same event is mind-expanding!

Consciously seek out different sources of news and opinions than your usual, NOT to blindly accept what they say but to learn and think. Try and see the “narrative” that is maintained by your usual sources of media (and others you seek out). Think through the message and the possible incentives.

## Answers to Chapter 4 Review Questions

Question 1 - Correct answer: C) It exposes the motivations behind everyone’s actions

Question 2 - Correct answer: D) All of the above

## Chapter 5: Live Happier

*“Money is a technology that allows us to imagine futures,”*

Aaron Swartz - Tech Genius and Entrepreneur

*“Sound money is also an essential element of a free society as it provides for an effective bulwark against despotic government.”*

Saifedean Ammous, *The Bitcoin Standard: The Decentralized Alternative to Central Banking*

### Agency and Hope

Money enables us to transfer value into the future. So the better our money holds its value, the better future we are able to imagine. So it's natural that people storing money in Bitcoin - the hardest money on earth, will be hopeful and happier overall.

Bitcoin's finite supply and decentralized nature make it a form of "hard money," meaning its value is more stable over time than government-issued currencies, which is predictably subject to inflation and other economic factors. During the Covid pandemic, and since, governments have gone on a spending spree unlike any other in history, and the resulting inflation is now surging!

Bitcoiners who are convinced of the security of Bitcoin may feel more secure about their financial future because they have a decentralized asset that can hold value over time. This may give them a sense of control and certainty that can contribute to their happiness. I find Bitcoiners very positive about the future because they have this hope.

Additionally, Bitcoiners may feel a sense of community and shared values with other Bitcoin users, which can contribute to a sense of belonging and happiness. The Bitcoin community is known for its emphasis on privacy, individual liberty, and financial freedom, and Bitcoiners often feel empowered by their involvement in this community. Bitcoin is NOT a religion, but it can be compared to one because of the dedication to a cause and the depth of the social community.

Furthermore, the act of investing in Bitcoin (and educating others about it) may give Bitcoiners a sense of purpose and accomplishment. By investing in Bitcoin, they are taking control of their financial future and making decisions that they believe will benefit them (and those who listen to them) in the long run.

This can give them a sense of agency and satisfaction, which can contribute to their overall happiness. The benefits of investing in Bitcoin, such as financial security, community, purpose, and agency, seem to contribute to their overall sense of happiness and well-being.

When you have true control over your money, you have true control over your life. When you use money that can be censored or taken from you, and is taken from you regularly through inflation, you tend to be much less hopeful about the future! When your hope is low, and your future is less certain, your happiness level drops also.

## Bitcoin Gives You Time

Because you know your money is securely saved in the hardest asset the world has known (since no more can be issued after 21 million), this can free your time for your favorite activities. When suffering from a high yearly inflation rate, everybody is forced to spend their time learning how to “keep up” with inflation. In some countries, this is nearly impossible.

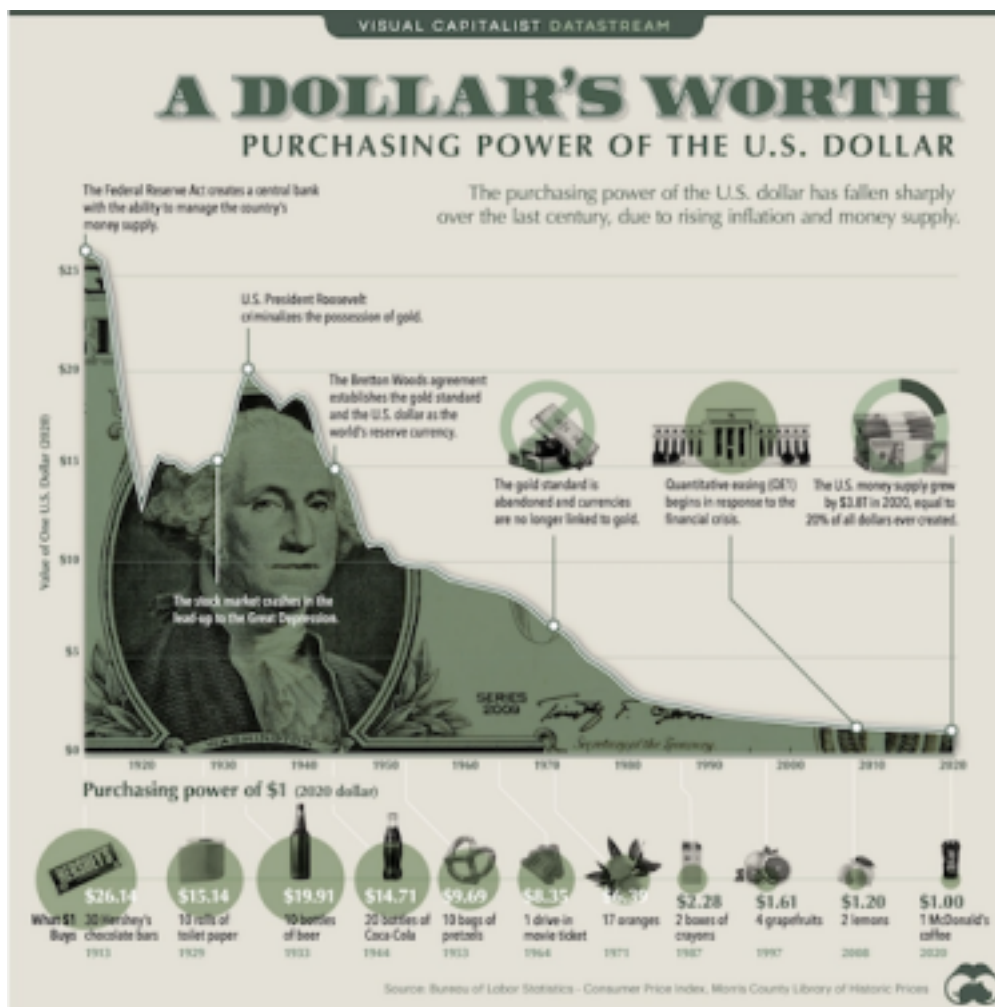
Some people keep up with inflation by getting a second job or working longer hours. Others who already have money saved are forced to become an expert in investing so they can earn a yield that matches inflation. Historically, the stock market goes up at about the same rate as the money supply, so people have to become skilled at investing in stocks.

Bitcoiners love their hobbies and life activities! For me, this is spending time with my family, hiking, rock collecting, and building rock walls and pathways.

Life is about more than work, though Bitcoiners do appreciate work. Give value to the world and earn money in return, save in Bitcoin, and then let it go up in value when you have a long enough time frame. Then you can free up the rest of your life for living. For you, that might be cooking, rock climbing, horseback riding, surfing, or whatever.

Those who understand Bitcoin deeply don't think in terms of “buying” bitcoin with dollars as an investment. They think in terms of moving value from dollars (which are 99% guaranteed to go down over the years) into a different money system called Bitcoin, which is 99% guaranteed to go up over the years.

Don't you think you'll be happier holding your value in Bitcoin when the overall trajectory is up? See the chart below, from @therationalroot on Twitter. Or would you rather have the value of your savings go down, as shown on the other image below? The second image is from The Visual Capitalist.



## Chapter 5 Review Questions

Question 1: How can using Bitcoin lead to greater happiness?

- A) Investing in Bitcoin guarantees financial success and therefore leads to greater happiness.
- B) Bitcoin's flexible money supply means that more can be printed - and that's more for everybody.
- C) Bitcoin's hard money status helps people move value to the future and thus plan for it more hopefully and securely
- D) Bitcoin's leader says you'll be happier and you can trust that it's true Question 2:

Which of the following best explains how Bitcoin can free up your time?

- A) By requiring you to become an expert in investing to earn a yield that matches inflation
- B) By allowing you to save your money in a secure and inflation-resistant asset, freeing up time for hobbies and activities
- C) By forcing you to work longer hours or get a second job to keep up with inflation
- D) By requiring you to constantly monitor the value of your Bitcoin investments to avoid losses

## Practical Exercise for Living Happier

List 5 favorite activities that you'd like to do more of when you have more time.

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_
- 4 \_\_\_\_\_
- 5 \_\_\_\_\_

## Answers to Chapter 5 Review Questions

Question 1 - Correct answer: C) Bitcoin's hard money status helps people move value

to the future and thus plan for it more hopefully and securely

Question 2 - Correct answer: B) By allowing you to save your money in a secure and inflation-resistant asset, freeing up time for hobbies and activities

## Chapter 6: Live Free

*“Bitcoin’s mere existence is an insurance policy that will remind governments that the last object the establishment could control, namely, the currency, is no longer their monopoly. This gives us, the crowd, an insurance policy against an Orwellian future.”*

Saifedean Ammous, *The Bitcoin Standard: The Decentralized Alternative to Central Banking*

*“This is a historical lesson of immense significance, and should be kept in mind by anyone who thinks his refusal of Bitcoin means he doesn’t have to deal with it. History shows it is not possible to insulate yourself from the consequences of others holding money that is harder than yours.”*

Saifedean Ammous, *The Bitcoin Standard: The Decentralized Alternative to Central Banking*

### Bitcoin Increases Freedom

The decentralization of Bitcoin promotes freedom from government or financial institution control, enabling individuals to have greater financial sovereignty and independence in many ways.

**Financial Inclusion:** Bitcoin offers an alternative financial system that is accessible to anyone with an internet connection. This makes it particularly valuable for individuals who do not have access to traditional financial services or are excluded from the banking system. Bitcoin promotes freedom by giving people the ability to participate in a global financial network without requiring them to have a bank account or meet specific eligibility requirements.

**Inflation Resistance:** Bitcoin's finite supply of 21 million coins makes it resistant to inflation, unlike traditional currencies that can be subject to inflationary pressures. This means that the value of Bitcoin is likely to go up over time (rather than down like fiat), giving individuals greater financial freedom and security.

**Borderless:** Bitcoin operates globally and is not restricted by national borders or currency exchange rates. This means that individuals can send and receive funds to and from anywhere in the world without intermediaries. Bitcoin promotes freedom by eliminating the barriers that traditional financial institutions impose on cross-border transactions.

Privacy: While Bitcoin transactions are not completely anonymous, they do offer a level of privacy that traditional financial transactions do not. Users can transact without revealing their identity, which can be beneficial in situations where privacy is essential, such as political or social activism. Privacy is NOT a crime, and most Bitcoiners claim that you cannot even have freedom without privacy.

Matt O'Dell and Bitcoin Magazine have produced an excellent video series called "Freedom Money" and you can view the second in the series below:

<https://www.youtube.com/watch?v=D0y41yelcNM>

## The Freedom Mindset - Bitcoin and Human Rights

When you realize that you can obtain financial freedom, this spills over into every area of your life, which feels empowering! You feel more free to question what you've been programmed to believe and how you are "supposed" to live.

According to Freedom House, a human rights organization, nearly 3 billion people live under authoritarian regimes. Authoritarian leaders just hate it when the masses won't lie down and do what they are told to do. Andreas Antonopoulos tells about how a group of Chinese protesters were tracked down by the authorities through the use of their subway card.

If you live in a free economy where your basic rights are protected, then you might see Bitcoin as a speculative asset, and miss the revolutionary nature and possibilities. This is true also if you have decent access to financial services and your national fiat money is somewhat stable.

It's quite different when you live as one of the 3 billion who don't have these luxuries. Yet even in countries we thought were more free, financial oppression is now occurring. JPMorgan Chase closed Kanye West's bank account without giving a reason, because he said something they didn't agree with.

During the Freedom Convoy, the Canadian government froze donations to protesters when these payments were done through the usual financial rails. So the supporters of the convoy started to use Bitcoin, which the government couldn't block, freeze, or confiscate.

Bitcoin grants everyone on earth the right to own property that can't be debased by the government. Fiat money is subject to this theft of value nearly every year, and is



significant over time even with a “low” inflation rate!

With Bitcoin, you have the freedom to transact peer to peer with anyone you want, with no permission needed. Authoritarian governments can seize your fiat money for any number of reasons when they feel the desire, because of your skin color or religion, your heritage, or simply because you are speaking up for freedom.

## Chapter 6 Review Questions

Question 1: What is one way that Bitcoin promotes freedom?

- A) By promoting government and financial institution control
- B) By requiring individuals to have a bank account to participate
- C) By subjecting the users to inflationary pressures
- D) By enabling individuals to have greater financial sovereignty and independence

Question 2: What is one way in which Bitcoin can increase human rights? A) By

- providing a speculative asset for investors in free economies B) By enabling authoritarian governments to track financial transactions more easily
- C) By allowing people to transact without permission and without fear of government seizure
- D) By offering stable fiat money to those living in countries with financial oppression

## Practical Exercise for Living Free

Buy some bitcoin. Simply get some to start with. As some Bitcoiners say, “Get off zero”. Even if it’s just a few dollars, it’s a psychological start for you! If you are a beginner, then just buying bitcoin may be a huge step, even if it’s through a third party like Fidelity or an exchange.

However, remember that the ultimate goal is for you to hold your own money and NOT trust a third party. So if you already have some bitcoin purchased and it’s not in your own wallet, your action item is to move SOME of your bitcoin into a wallet controlled by

YOU.

I promise that after you move a little bit and feel comfortable with it, you'll enjoy the safety and freedom you feel. If you need to do some research first in order to understand what you are doing on a hardware wallet, then do that research.

## Answers to Chapter 6 Review Questions

Question 1 - Correct answer: D) By enabling individuals to have greater financial sovereignty and independence.

Question 2 - Correct answer: C) By allowing people to transact without permission and without fear of government seizure

## Chapter 7: Hard Money

*This is a historical lesson of immense significance and should be kept in mind by anyone who thinks his refusal of Bitcoin means he doesn't have to deal with it. History shows it is not possible to insulate yourself from the consequences of others holding money that is harder than yours.*

Saifedean Ammous, *The Bitcoin Standard: The Decentralized Alternative to Central Banking*

### Hard Money Dialogue

The interchange below is a pretend dialogue, but made up of parts of conversations I've had with people over the last few years.

Friend: You and other Bitcoiners are always talking about "hard money"! What is hard about money and why would I want it?

Bitcoiner: Good question. I think I can explain it but I have one caveat first.

Friend: OK, what's the caveat?

Bitcoiner: It's just about definitions. It can be confusing because if you search "hard money" in Google you get results about hard money in lending and in politics.

Friend: So that's not what you Bitcoiners mean?

Bitcoiner: Not at all. We mean the original use of hard money which is hundreds of years old.

Friend: And what's that?

Bitcoiner: Well, what has been used for money more than anything else, over the centuries?

Friend: Gold I suppose; gold and silver.

Bitcoiner: Yes, and metal is hard, depending on the metal.

Friend: It can't be that simple. Bitcoin isn't even physical. It can't be hard in that way.

Bitcoiner: You're right. In fact, people used to bite their gold coins to see if they were soft, to try and see if they were gold.

Friend: I've seen some Olympic medalists bite their awards.

Bitcoiner: Yes, but gold isn't valuable because it's either soft or hard in that way. Steel is much harder, so would it be better for use as money? What makes gold special?

Friend: Gold is scarce.

Bitcoiner: Right, it's valuable because it's scarce. Money also needs to be durable, meaning long lasting. And ideally, money is portable, divisible into small units, and easily verified to be authentic.

Friend: That's a lot.

Bitcoiner: OK, we will stick with hardness, in the sense of "difficult" to make more, which means scarce. The gold supply does increase each year, so it's not absolutely scarce. Do you know the rate of yearly increase?

Friend: Ten percent a year?

Bitcoiner: Not that much; more like two percent a year. So you know the value of your gold will hold over many years. It's hard money because it can't be diluted or debased quickly. You can't easily and quickly double the supply of gold.

Friend: So how does Bitcoin compare to gold?

Bitcoiner: In hardness, very well. With Bitcoin you can't increase the total supply at all.

Friend: But I thought you told me new Bitcoins were created every day in mining.

Bitcoiner: Right, they are. It depends on how you think about it. Almost 92 percent of the total supply of bitcoins, which is 21 million, are mined and circulating. So in any case, the total number ever in existence is known, and only eight percent are yet to be mined, over the next hundred years. So the increase is small.

Friend: So if that were true with gold, then the total amount of gold in the universe would be known exactly, and 92 percent of it would be mined now.

Bitcoiner: Yes, but the supply of gold will one day be double what it is now. So Bitcoin is harder money.

Friend: What about U.S. dollars? How hard is fiat money?

Bitcoiner: You tell me.

Friend: Well, I know the government created trillions more dollars over the past few years, which is why we have such high inflation now.

Bitcoiner: Yes, government money is not hard at all. It used to be, sort of, when we were linked to gold on the gold standard. So how likely is it that there will be more dollars in ten years than right now?

Friend: Hmm, about 100 percent.

Bitcoiner: At least 99.99 percent. So that's the likelihood that your dollars will be worth a lot less in ten years, than right now. Do you see why we get excited about hard money?

Friend: I'm beginning to. But what are the chances that Bitcoiners will change the issuance schedule? That would throw off the hardness.

Bitcoiner: Bitcoiners are fanatic about the issuance schedule. It's what gives Bitcoin value. The chances are 99.99 percent that the 21 million cap will remain. Everyone involved has incentives to keep it that way.

Friend: Sounds fair.

Bitcoiner: And when more people understand that the value of their dollars will surely go down, and they learn about Bitcoin as a hard money option, the demand for it will increase.

Friend: And based on the laws of supply and demand, that means the price will go up!

Bitcoiner: Right, it's literally designed that way.

Friend: I need more Bitcoin.

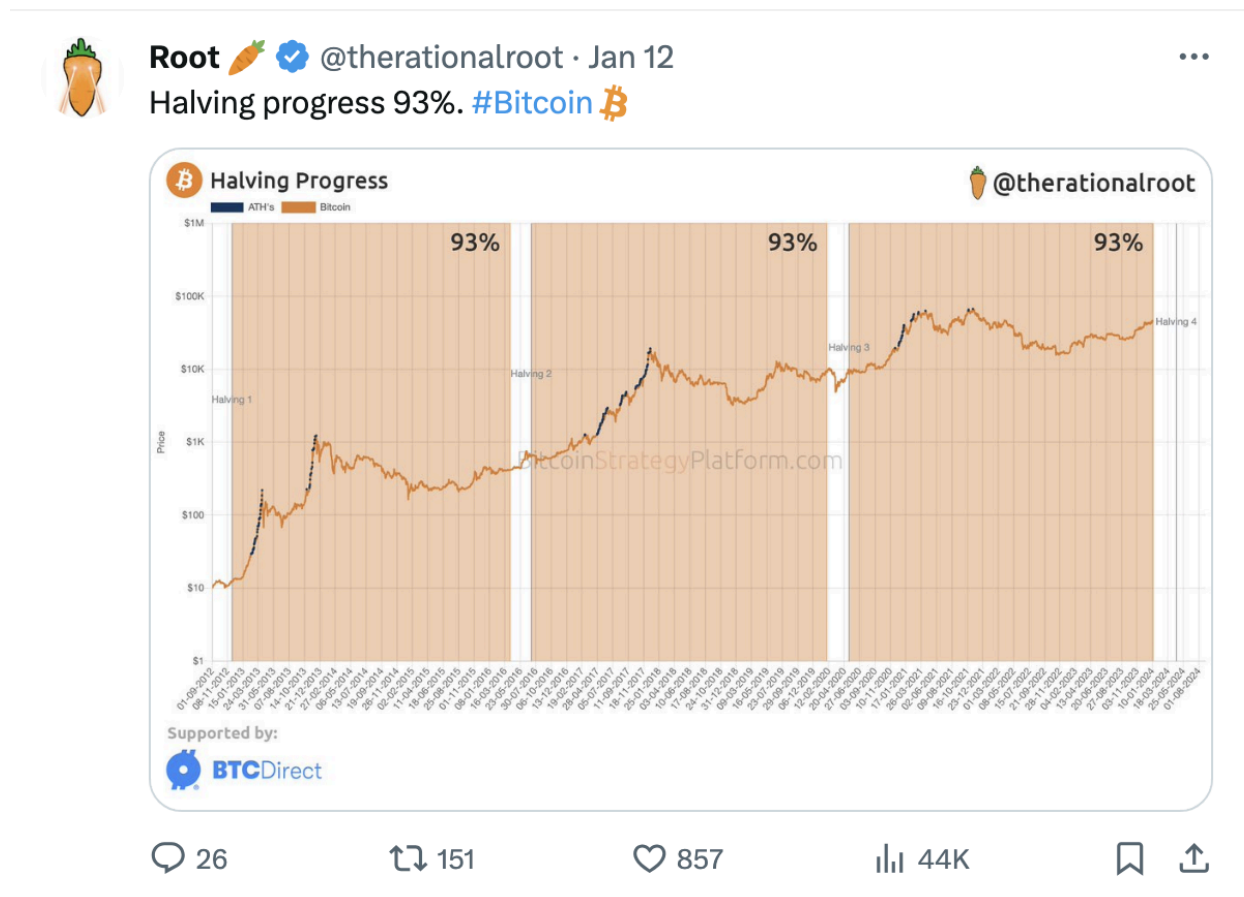
## Visualizing Hard Money

Here is a picture showing the devaluing of the U.S. Dollar since 1950, and it's been one of the strongest currencies! This chart is taken from <https://BuyBitcoinWorldwide.com> and it's a super website for Bitcoin info.



On the other hand, the supply of Bitcoin (total) is capped at 21 million. Bitcoins are still being created daily, but the supply increase is halved every four years (approximately). The reward given to the bitcoin miners as a reward for securing the network started out as 50 bitcoin per block. Then at the first halving, this was cut in half to 25 bitcoin per block. Right now in 2023 the miners receive 6.25 bitcoin per block. In early 2024 this will be cut to 3.25. This drives a very unique and distinct four year cycle in the overall Bitcoin price because of the decrease in supply.

You can see this distinct pattern on the chart below, from @therationalroot on Twitter. He created this chart when we were 93% through the current halving cycle. (Pic below added January 15, 2024).



## Chapter 7 Review Questions

Question 1: What does the term "hard money" mean in the context of the dialogue in this chapter?

- A) Money that is physically hard and durable, such as gold or silver
- B) Money that is difficult to obtain or earn

- C) Money that is not subject to inflation or debasement, such as Bitcoin or gold
- D) Money that is backed by a government or central authority

Question 2: What is the main characteristic of "hard money" according to the conversation between the Bitcoiner and the Friend?

- A) It is made of gold or silver
- B) It is easily verifiable to be authentic
- C) It is portable and divisible into small units
- D) It is scarce and difficult to dilute or debase

## Practical Exercise for Hard Money

Go to this website below

<https://coinmarketcap.com/fiat-currencies/>

And see where Bitcoin ranks compared to the world's fiat currencies. As I write this, Bitcoin is number 22. It will increase, but that's not the important stat. What is important is WHY Bitcoin will move up that list.

Look over at the Max Supply column on the right of the chart and see what it says for all of the fiat currencies.

Fill in the following lines.

What is the Max Supply for Chinese Yuan? \_\_\_\_\_

What is the Max Supply for US Dollar? \_\_\_\_\_

What is the Max Supply for the Euro? \_\_\_\_\_

Now think about what that means in terms of hard money, and Bitcoin's max supply cap.

## Answers to Chapter 7 Review Questions

Question 1 - Correct answer: C) Money that is not subject to inflation or debasement, such as Bitcoin or gold.

Question 2 - Correct answer: D) It is scarce and difficult to dilute or debase.



## Chapter 8: Resources (Bitcoin Experts)

*Bitcoin can be best understood as distributed software that allows for transfer of value using a currency protected from unexpected inflation without relying on trusted third parties.*

Saifedean Ammous, *The Bitcoin Standard: The Decentralized Alternative to Central Banking*

This is a list of people who know Bitcoin well (from various angles) and can ALSO talk about it well. If you aren't sure where to start, then start with Saifedean and his book.

I will list each of their specialties within Bitcoin so you can tailor your learning to your needs. For example, if you want to learn about Bitcoin from a human rights perspective, then start with Alex Gladstein.

### Saifedean Ammous (Economist, Author)

Dr. Saifedean Ammous is an economist, educator, and author of *The Bitcoin Standard: The Decentralized Alternative to Central Banking*, the first study of the economics of bitcoin. He is also the author of *The Fiat Standard: The Decentralized Alternative to Human Civilization*. This second book analyzes the current fiat monetary system (and finds it woefully lacking).

Dr. Ammous teaches economics on his online education platform, which is at the website below:

<https://saifedean.com/>

He also hosts *The Bitcoin Standard Podcast*. He has another forthcoming book, a university-level economics textbook, *Principles of Economics*.

### Michael Saylor (CEO of MicroStrategy)

Michael Saylor is a tech entrepreneur, but he is also a student of history so he brings that perspective to Bitcoin also.

He founded Saylor Academy, which is a nonprofit initiative working since 2008 to offer free and open online courses to all who want to learn.

The Academy offers nearly 100 full-length courses at the college and professional levels, each built by subject matter experts. All courses are available to complete — at your pace, on your schedule, and free of cost.

Yes, there is a course on Bitcoin! Take it below.

<https://learn.saylor.org/course/PRDV151>

Michael also owns Hope.com and has used it for further Bitcoin education.

<https://www.hope.com/>

## Lyn Alden (Author and Financial Analyst)

Lyn is an independent financial analyst and engineer. You can read many of her articles below. Her content is more for the advanced Bitcoiner.

<https://www.lynalden.com/>

She is a familiar speaker on many Bitcoin podcasts. I'm always impressed whenever I hear Lyn speak. Her specialty is global and macro finance and you'll learn a lot from her.

## Natalie Brunell (Journalist and Podcast Host)

Natalie is a Polish-American media personality, investigative journalist, podcast host and educator. She is the host of the Coin Stories podcast, featuring the leading experts in Bitcoin and Austrian economics.

She also hosts the Hard Money podcast, through Swan Bitcoin. The link below will take you to that channel on YouTube.

[https://www.youtube.com/@Swan\\_Bitcoin](https://www.youtube.com/@Swan_Bitcoin)

Natalie is a skilled interviewer and easy to listen to. Most of her content is suitable for beginners.

## Preston Pysh (Author and Podcast Host)

Preston is an author and a podcast host. His videos on financial investing have been

viewed by millions of people around the world. Here is his main channel below:

<https://www.youtube.com/@PrestonPysh>

Preston is a good choice to learn more about Bitcoin if you have a financial background

## Jeff Booth (Entrepreneur and Author of The Price of Tomorrow)

I've read Jeff's book titled "The Price of Tomorrow" and his thoughts and analysis are truly revolutionary! Jeff is frequently interviewed on Bitcoin podcasts and his ideas are quite beginner friendly. His clarity of thought is very refreshing and he has a way of connecting with people all over the world.

Here is Jeff's book on Amazon. The subtitle of his book is "Why Deflation is the Key to an Abundant Future"

<https://www.amazon.com/Price-Tomorrow-Deflation-Abundant-Future/dp/1999257405>

Jeff is sometimes referred to as "The Mister Rogers of Bitcoin" because he's just nice. Here is an interview below that Jeff did with Natalie.

<https://www.youtube.com/watch?v=pwBVBOPRnv4>

## Jack Dorsey (CEO of Block, creator of Twitter)

Jack is an internet entrepreneur and programmer who co-founded Twitter and is still the CEO of the payments company Block (formerly Square). Jack now devotes most of his time to Bitcoin, developing the lightning layer and working on a user-friendly Bitcoin wallet for consumers.

Jack believes that "Bitcoin Changes Everything" and that "The world will ultimately have a single currency and I believe it will be Bitcoin."

He also said "Bitcoin will unite a deeply divided country and ultimately the world." Jack was interviewed by Michael Saylor - link below:

<https://www.youtube.com/watch?v=nC37CqWpxfl>

## Cory Klippsten (Author, CEO of Swan Bitcoin)

Cory is a prolific writer and speaker and is the CEO of Swan Bitcoin. He is dedicated to Bitcoin education and you can find many great resources on the “Learn” tab of the Swan Website below:

<https://www.swanbitcoin.com/signal>

Here is a great interview that Cory did with Natalie Brunell, titled “Bitcoin Will Incentivize a More Just World”.

[https://www.youtube.com/watch?v=m\\_wwlBdzZ0U](https://www.youtube.com/watch?v=m_wwlBdzZ0U)

## Robert Breedlove (Creator of the What is Money Show)

Robert is a consistent and prolific Bitcoin educator with his podcast. His shows are excellent, but they are often philosophical and deep, and perhaps not the best for beginners.

[https://www.youtube.com/channel/UC43\\_LTf5Z4IbRjKCq0sIAVg](https://www.youtube.com/channel/UC43_LTf5Z4IbRjKCq0sIAVg)

Nik Bhatia (Finance Professor, Creator of The Bitcoin Layer)

Nik actually teaches a college class that includes content about Bitcoin. He is also the author of Layered Money, which is a class at Michael Saylor’s free university.

Layered Money looks at Bitcoin through a macro economic perspective. <https://thebitcoinlayer.com/>

## Jack Mallers (CEO of Strike)

Zap's founder and CEO, Jack Mallers, is responsible for overseeing Strike, a well-known app that facilitates quick and free payments via Bitcoin's Lightning Network.

The Lightning Network is a protocol developed on the Bitcoin blockchain that allows for transactions to be conducted off-chain.

Here is a great interview Jack did with Bitcoin Magazine.

<https://youtu.be/EW0Olw5yY7Y>

And here is the Strike website below (Straight to the LEARN page)

<https://strike.me/learn/>

## Matthew Kratter (Creator of Trader University)

Matthew's YouTube channel is another good place for beginners. He has a great way of simplifying and presenting Bitcoin in a way that's easily understandable.

Matthew says "Bitcoin is the greatest revolution of our lifetime, and I feel blessed to be able to participate in sharing Bitcoin education with the world."

Here is his YouTube channel, and his short videos are worth watching every day.

<https://youtube.com/@TraderUniversity>

And here is his website

<https://www.bitcoinuniversity.com/about>

## Christopher Westra (Author, Creator of BitcoinPoems.pro)

Hey, that's me! Before writing *The Bitcoin Effect* (the book you are reading), Christopher created many Bitcoin Poems that you can read below:

<https://www.bitcoinpoems.pro/>

Sign up to get each new poem as it's written. Each poem explores a specific aspect of Bitcoin. He also wrote over one hundred Prosperity Poems that you can read below:

<https://www.prosperitypoems.com/>

Christopher has a Geyser fund (kind of a Go Fund Me, but with bitcoin), and you can send some sats to support the Bitcoin Poems or this book below:

<https://geyser.fund/project/bitcoinpoems>

## James Lavish (Creator of The Informationist Newsletter)

James is one of the founders of Looking Glass Education. James' interviews and articles are especially good if you have a background in finance.

<https://lookingglasseseducation.com/tag/quick-read/>

Andreas Antonopoulos (Bitcoin advocate, Entrepreneur, Author)

Andreas wrote the book Mastering Bitcoin. It's very technical. Andreas is a good source if you are a developer, or very knowledgeable about programming in general.

Mastering Bitcoin: Programming the Open Blockchain <https://a.co/d/g0cVncr>

## Nic Carter (Author, Venture Capitalist)

Nic is an insightful author and writes in depth articles about Bitcoin and macroeconomics.

Nic has written an incredible amount of content about Bitcoin, covering many facets and angles. Check out his writings below:

<https://niccarter.info/topics/>

Here is a great YouTube interview with Natalie.

<https://youtu.be/M5GNXIIIE8go>

## Alex Gladstein (Chief Strategy Officer at the Human Rights Foundation)

Alex Gladstein is the chief strategy officer at the Human Rights Foundation. He also serves as vice president of strategy for the Oslo Freedom Forum, and teaches at the Singularity University

Alex works with a variety of people throughout the world to promote free and open societies.

Alex's writing and views on human rights and technology have appeared in media outlets across the world.

Here is the website for the Human Rights Foundation.

<https://hrf.org/team/alex-gladstein/>

And for the Oslo Freedom Forum

<https://oslofreedomforum.com/>

## Parker Lewis (Author, works at Unchained Capital)

Parker is frequently on podcasts educating others on the benefits of Bitcoin. He also writes articles for Unchained Capital.

Here is a great interview with Peter McCormack on What Bitcoin

Did. <https://youtu.be/zSx7TUYdLxc>

<https://www.whatbitcoindid.com/podcast/bitcoin-cant-lose?format=amp>

## Caitlin Long (Founder/CEO of Custodia Bank, Author)

Caitlin is a refreshing voice in the Bitcoin space and is frequently interviewed on podcasts. She is super knowledgeable about finance and macroeconomic factors.

She is the founder of a new safer banking model with Custodia Bank in Wyoming.

<https://caitlin-long.com/>

Here is a great interview with Caitlin on What Bitcoin Did.

[https://youtu.be/xqX\\_NkBUQzg](https://youtu.be/xqX_NkBUQzg)

## Pierre Rochard (Cofounder Satoshi Nakamoto Institute)

Pierre Rochard has 3 current jobs including Bitcoin Strategist at Kraken, Co-Host at Noded Bitcoin Podcast , and Co Founder at the Satoshi Nakamoto Institute.

Here are some articles by Pierre at Bitcoin Magazine.

<https://bitcoinmagazine.com/authors/pierre-rochard>

And here is a link to the Satoshi Nakamoto Institute.

<https://nakamotoinstitute.org/>

## Mark Moss (Finance Podcast Host)

Mark Moss is a seasoned investor and entrepreneur who has spent 25 years building and investing in various markets.

Mark is also the host of a popular radio show for Bitcoin, and his YouTube channel covering Bitcoin and related macro topics is one of the fastest growing.

In addition, he hosts the "Market Disruptors Podcast" and live events. Mark's extensive experience and love of history provide him with unique insights and the ability to simplify complex subjects for practical use.

Here is his YouTube channel

YouTube: <https://youtube.com/c/markmoss>

## Luke Broyles (Young Author, Investor)

Here is a good interview with Luke on Preston's podcast.

<https://youtu.be/695SjcxoejY>

He also writes for Bitcoin Magazine

<https://bitcoinmagazine.com/authors/luke-broyles>

## Sam Callahan (Host of the Swan Signal Podcast)

Sam is the Lead Analyst at Swan Bitcoin and the host of the Swan Signal podcast. Here is the link for Swan Signal.



[https://youtube.com/@Swan\\_Bitcoin](https://youtube.com/@Swan_Bitcoin)

Here is a another good interview with Sam

[https://youtu.be/\\_QnZzZc9IVQ](https://youtu.be/_QnZzZc9IVQ)

## Dylan LeClair (Author, Entrepreneur)

Dylan is a 20 year old with a passion for Bitcoin. Aside from his work with media operations at Bitcoin Magazine, Dylan operates a consulting business, 21st Paradigm, which aims to assist businesses and individuals to incorporate Bitcoin into their capital allocation and business strategy.

Here are some articles by Dylan at Bitcoin Magazine.

<https://bitcoinmagazine.com/authors/dylan-leclair>

Here is a 15 minute video with Dylan called The Real Reason to Buy Bitcoin

<https://youtu.be/uBMUGChTp4w>

## Obi Nwosu (CEO of Fedi)

Obi is the CEO of Fedi and a full time Bitcoin advocate.

Fedi Inc is a global Bitcoin adoption technology company. The Fedi mobile app is designed to support billions of humans using Bitcoin securely, privately, and scalably.

I continue to support initiatives that advance the Bitcoin ecosystem and make owning and using Bitcoin easy for everyone.

Here is a good interview Obi did with Peter on What Bitcoin Did.

[https://youtu.be/7AN2C53X\\_D0](https://youtu.be/7AN2C53X_D0)

## Matt Odell (Bitcoin Entrepreneur and Tech Expert)

Look up Matt's Freedom Money episodes on YouTube. Matt has some content for beginners, and a lot of content for the "more techie" type of people. So if you are learning about Bitcoin from a coding or development background, then check out his website below:

<https://mattodell.com/>

Here is an article on Bitcoin Privacy by Matt.

<https://www.swanbitcoin.com/canon/privacy/>

## Tomer Strolight (Bitcoin Writer and Educator)

Tomer Strolight works at Swan Bitcoin and does a lot of writing about Bitcoin.

Check out his Why Bitcoin Series below at the Swan Site. The book "Why Bitcoin" is a collection of twenty-seven short yet insightful essays about Bitcoin. The original essays were published on medium.com in spring 2021.

Tomer sells his book but he gives it away to the Swan community for free as part of Swan's commitment to Bitcoin education!

<https://swanbitcoin.com/WhyBitcoin/>

And you can find more of Tomer's writings at the Swan Signal Blog below or at his Medium page.

<https://www.swanbitcoin.com/signal/>

<https://tomerstrolight.medium.com/>

## Jameson Lopp (Cypherpunk, Angel Investor, and Casa Co-founder)

Jameson is the co-founder of Casa, and a well respected Bitcoin developer and writer. His mission is to use his skills to build tools that empower individuals. He works hard to make it easier for people to take custody of their bitcoin and manage their private keys.

He says "Cryptographic protocols are powerful tools that provide asymmetric defense

capabilities to normal people; widespread deployment of them will have a noticeable impact upon the world by changing the power dynamics between authorities and the rest of society.”

Jameson’s website is so broad that I also list it in the website section of this book. He has articles, presentations, interviews, lightning resources, tech projects, and more.

<https://www.lopp.net/>

## BTC Sessions (Bitcoin Educator, Tutorialist)

Ben at BTC Sessions is a super resource if you actually want to use and play around with Bitcoin Tools. I followed some of his tutorials when learning about self custody.

Here is his YouTube Channel below:

<https://www.youtube.com/c/btcsessions>

He is well networked with other Bitcoiners and can lead you into whatever you want to learn. Here is his website below:

<https://www.btcsessions.ca/>

## Simply Bitcoin (Daily YouTube Show - Guide to the Separation of Money and State)

Nico and Opti keep you up to date with the peaceful Bitcoin Revolution. They have great energy and inform you with all the daily news pertaining to Bitcoin! Here is their YouTube Channel Below:

Simply Bitcoin YouTube Channel

<https://www.youtube.com/c/simplybitcoin>

I listen to them every day. And here are some other places that you can listen to them.

<https://simplybitcoin.tv/>

## Chapter 9 - Resources (Bitcoin Education)

*“Bitcoin is the most stellar and most useful system of mutual trust ever devised.”*

Arif Naseem

### Michael Saylor's Bitcoin Education

Hope.com is a great site with lots of interviews, podcasts, and other educational resources. They also have a section for leaders and corporations.

<https://www.hope.com/>

### Looking Glass Education

Looking Glass is a fantastic educational platform to empower people to take control of their financial futures. They have audio, video, articles, and even courses. All of the content has a common goal - highlighting the ingenuity and potential of Bitcoin.

Lots of educators and other contributors make a wide variety of resources and

choices. <https://lookingglasseseducation.com/>

### Bitcoin Policy Institute

The Bitcoin Policy Institute is a think tank studying the future of money. This is a good source if you are interested in Bitcoin from a governmental, academic, or societal point of view. The site has categories like “National Security & Geoeconomics” and “Financial Inclusion & Human Rights” and “Mining and Energy”.

The institute has some great experts and advocates from many fields and viewpoints.

<https://www.btcpolicy.org/>

### Jameson Lopp Bitcoin Information and Resources

This site has a tremendous amount of content for beginners and advanced Bitcoiners. Start on the “Getting Started” tab if you are a beginner. He also has content about setting up wallets, running nodes, the history of Bitcoin, classes, documentaries, video presentations, podcasts, blogs, books, careers in Bitcoin, security, privacy, mining, and lots more!

<https://www.lopp.net/bitcoin-information.html>

## The Bitcoin Manual

This broad site provides content on Bitcoin Apps, How Bitcoin Works, Bitcoin Culture, Bitcoin Finance, in addition to info on the network, how to buy, security, and more. They definitely have content for the beginning and advanced Bitcoiners.

<https://thebitcoinmanual.com/>

## No BS Bitcoin

No BS Bitcoin is a great news source for anything related to the Bitcoin network (which is a LOT). This is true especially if you are into tech or coding. If yes, then sign up for their newsletter which keeps you up to date on Bitcoin tech.

<https://www.nobsbitcoin.com/>

## Hello Bitcoin YouTube channel.

Hello Bitcoin’s YouTube is definitely a good place for some short beginner videos! Explore a few videos on the environmental impact of Bitcoin, how it actually works, and how it can be a tool for human freedom

<https://www.youtube.com/@hellobitcoin/videos>

And here is the Hello Bitcoin website below:

<https://hellobitco.in/>

## Satoshi Nakamoto Institute

This is a great site for when you want to delve a little deeper into Satoshi's writings, or Satoshi's original emails. They also have a podcast and some great articles.

<https://nakamotoinstitute.org/>

## Satoshi Action Fund

The Satoshi Action Fund is specifically a Bitcoin mining advocacy organization, working to change the narrative on Bitcoin Mining. There are a lot of claims made against bitcoin mining and they are mostly untrue, and the Satoshi Action Fund is working to spread the truth.

They work to protect the Proof of Work consensus mechanism on the Bitcoin protocol. Some people try to say that Bitcoin should change to Proof of Stake or another method of validating the network. Bitcoin would not be secure and decentralized and censorship resistant without proof of work. That is what makes it unique and unstoppable, and it will not be changed.

And, it doesn't need to be changed. The Satoshi Action Fund is working to spread the truth that proof of work will have a positive impact on the economy, the grid, and the planet.

Their website below has a "Learn" tab that presents info on mining resources and energy resources. If you want data, they have it.

<https://www.satoshiaction.io/>

## Chapter x Review Questions

Question 1: contenthere

Question 2: contenthere

## Practical Exercise for xxx

ContentHere

## Answers to Chapter x Review Questions

Question 1 - Correct answer:

Question 2 - Correct answer:

## Chapter 10: Resources (Bitcoin Stats and Charts)

*For something to assume a monetary role, it has to be costly to produce, otherwise the temptation to make money on the cheap will destroy the wealth of the savers, and destroy the incentive anyone has to save in this medium.*

Saifedean Ammous, *The Bitcoin Standard: The Decentralized Alternative to Central Banking*

### Common Stats and Definitions

Some of the most commonly tracked Bitcoin statistics include:

1. **Price:** Bitcoin's price is perhaps the most closely watched statistic. It represents the current market value of one bitcoin in terms of another currency, such as the US dollar or the Euro.
2. **Market Capitalization:** This refers to the total value of all bitcoins in circulation, calculated by multiplying the current price by the total number of bitcoins in existence. It is often used to compare the size of the Bitcoin market to other asset classes, such as gold or the stock market.
3. **Trading volume:** This represents the total amount of bitcoin traded on various exchanges within a specific time period, such as 24 hours or one week.
4. **Hash Rate:** This measures the processing power of the Bitcoin network, and represents the total computational power being used to validate transactions on the blockchain.
5. **Difficulty:** This is a measure of how difficult it is for miners to validate transactions and earn new bitcoins, and is adjusted every 2016 blocks to maintain a consistent rate of new bitcoins entering circulation.

### TimeChain Calendar

The TimeChain Calendar is a quick overview of the most important Bitcoin network stats. It shows the price in dollars, and also how many Sats you can purchase with one

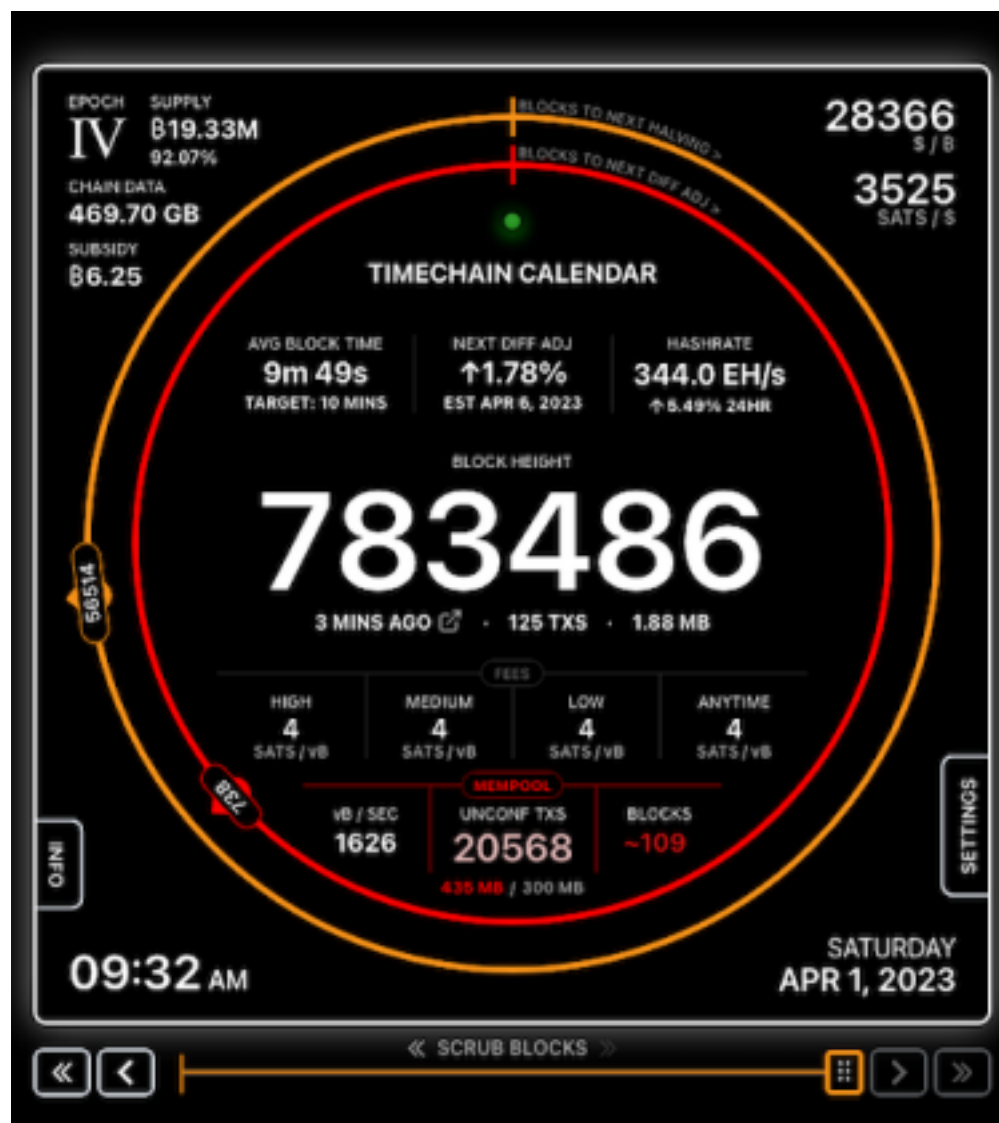


dollar. You can personalize it somewhat in the settings. If you are a beginner, only a few of the stats may be meaningful for you at the start.

It shows the block height, difficulty, next difficulty adjustment, epoch, mempool info, and lots more. And you can use the slider at the bottom to go back in time and the data adjusts and gives you a snapshot of price and block subsidy at a previous time.

The outer ring shows where we are in relation to the next halving, and the inner ring shows the progress towards the next difficulty adjustment. You can truly come back to this page many times and learn more each time. And it works on mobile devices also.

<https://timechaincalendar.com/>



Clark Moody Dashboard

This online dashboard truly has a wealth of statistics about Bitcoin and the lightning network (which is a second layer built on top of the Bitcoin Network). You can personalize this dashboard by setting some stats as “favorites” which will show up in the top left.

I’m still learning about some of these stats, and I’ve been studying Bitcoin for many years. So don’t be overwhelmed if you don’t know what some of these mean.

You can click on any statistic and a brief explanation will pop up underneath the statistic. This can help you learn.

<https://bitcoin.clarkmoody.com/dashboard/>

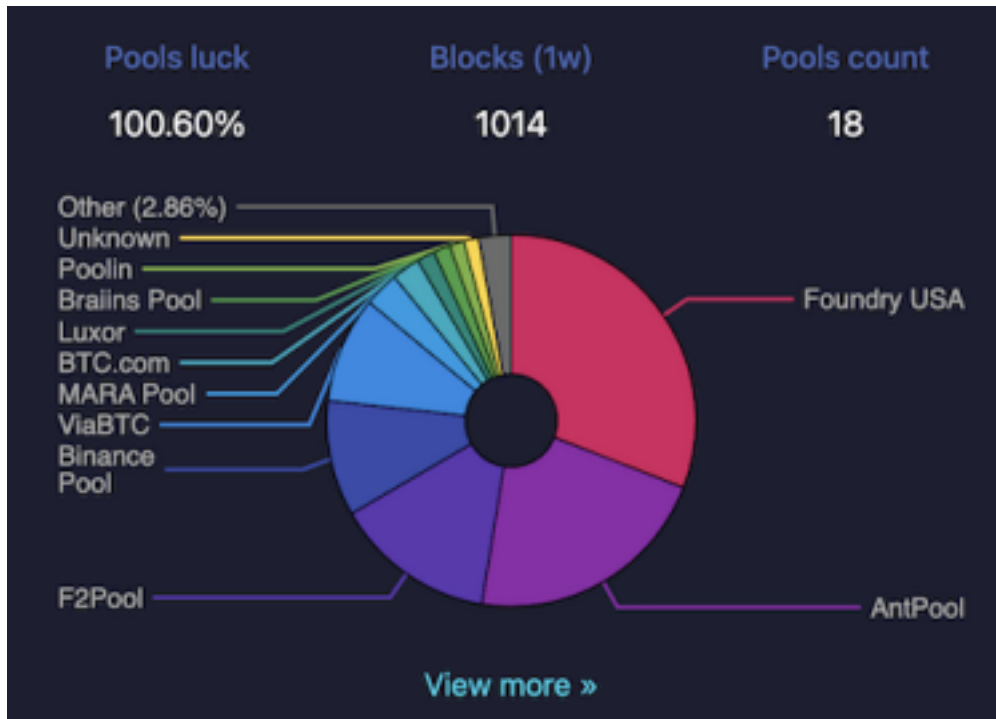
## Mempool.space

Mempool.space is an open source project that allows you to explore the entire Bitcoin ecosystem and has lots of useful graphs and charts to display this info.

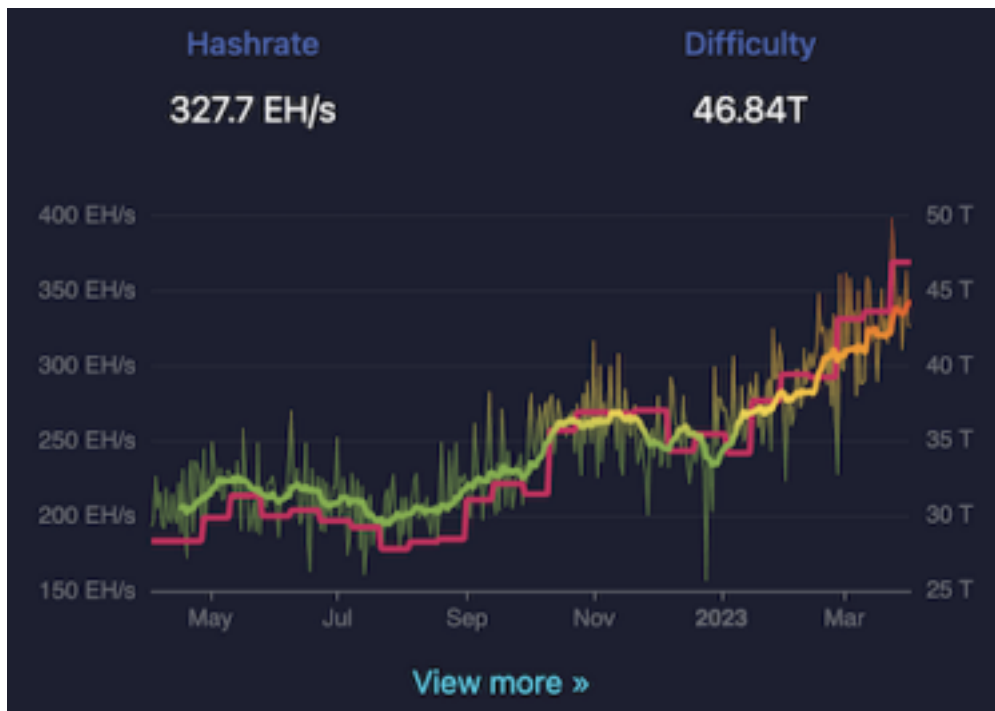
Explore this site as you begin to learn more about Bitcoin, and only as you need it.

<https://mempool.space>

The chart below shows different Bitcoin mining pools and what percentage of the new bitcoins they earn (which depends on their hashrate, over time).



This chart shows the Bitcoin difficulty and overall hashrate, both of which have been going UP quite a bit recently.



And this chart is a graphical representation of the Bitcoin Lightning Network nodes.



## Chapter 10 Review Questions

Question 1: "What is the best definition of Bitcoin's hash rate?"

- A) The total value of all Bitcoin that have been mined.
- B) The number of transactions that have been submitted to the Bitcoin network but have not yet been added to a block.
- C) The measure of the computing power that is being used to secure the Bitcoin network.
- D) The price of Bitcoin.

Question 2: What is the market capitalization of Bitcoin?

- A) The price of Bitcoin multiplied by the total number of Bitcoin in circulation.
- B) The number of transactions that have been submitted to the Bitcoin network but have not yet been added to a block.
- C) The measure of the computing power that is being used to secure the Bitcoin network.
- D) The total value of all goods and services purchased with Bitcoin.

## Practical Exercise for Stats and Charts

Visit the TimeChain Calendar below and then answer the following questions.

<https://timechaincalendar.com/>

What is the AVG BLOCK TIME? \_\_\_\_\_

The Bitcoin Code always strives to keep the block time at about ten minutes. But in reality, it's always slightly more or less than ten minutes. How is it doing?

The difficulty adjustment helps keep the block time at ten minutes. So if miners start creating blocks in less than ten minutes, the difficulty goes up.

What is the NEXT DIFF ADJ? \_\_\_\_\_

Now go to the Clark Moody Dashboard below and answer the

following. <https://bitcoin.clarkmoody.com/dashboard/>

Look under Transactions and list Total All Time \_\_\_\_\_

As I write this, that number is at 819,881,972 transactions. That's the number of transactions that Bitcoin has processed securely, which is pretty impressive.

Now look in the upper left for Sats per Dollar \_\_\_\_\_ Here is a snapshot of only ONE part of the Dashboard, showing my favorites at the top.

Clark Moody Bitcoin		Dashboard	
<b>Favorites</b>			
Velocity of Money		50	
Price		\$28,240	
Issuance Remaining	1,664,887.48	BTC	
Sats per Dollar		3,541	
Reachable Bitcoin Nodes		17,096	
Total Capacity		5,379.25	BTC
<b>Markets</b>			
			?
Price		\$28,240	
Sats per Dollar		3,541	
Market Capitalization		\$546.0B	
<b>Support Bitcoin Development</b>			
<b>Gold</b>			
			?
Bitcoin priced in Gold		14.3	oz
Bitcoin vs Gold Market Cap		4.14%	
<b>Corporate Treasuries</b>			
			?
Held in Corp. Treasuries		0	BTC
Value in Corp. Treasuries		\$0.00	
Supply Pct. in Corp. Treasuries		0.00%	
<b>Supply</b>			
			?
Money Supply	19,334,893.21	BTC	
Percentage Issued		92.07%	
Unspendable		219.29	BTC
Issuance Remaining	1,664,887.48	BTC	

## Answers to Chapter 10 Review Questions

Question 1 - Correct answer: C) The measure of the computing power that is being used to secure the Bitcoin network.

Question 2 - Correct answer: A) The price of Bitcoin multiplied by the total number of Bitcoin in circulation.

## Chapter 11: Resources (Bitcoin Tools)

*“Like Bitcoin, living things are volatile. Dead things, not so much.”*

Michael Saylor - Author of “The Mobile Wave”

## Get Free Bitcoin with Links Below

Fold App - Get 50,000 free Sats with my sign up link below

<https://use.foldapp.com/r/VC4EXF9H>

Choice App - Get \$50 in Bitcoin when you use my sign up link below

<https://use.choiceapp.io/ov4ukpk>

The Bitcoin Adviser - get your Bitcoin backed up safely!

<https://www.thebitcoinadviser.com/bitcoinpoems>

Many more coming soon.....

## Chapter x Review Questions

Question 1: contenthere

Question 2: contenthere

## Practical Exercise for xxx

ContentHere

## Answers to Chapter x Review Questions

Question 1 - Correct answer:

Question 2 - Correct answer:

## Chapter 12: 21 Specific Problems that Bitcoin Fixes

*“Fix the money, fix the world.”*

Michael Saylor - Author of “The Mobile Wave”

## The Problems and Solutions Poems

Some of my Bitcoin Poems include my Problems and Solutions Series. These are written in specific format to help me succinctly describe a problem of fiat money and how Bitcoin fixes that problem.

I’ll list these here with links to the poems with a background. But I’ll add just the wording here. Each poem is in the shape of an arrow, with the first part describing the problem, and the last part describing the solution, with the center being a hinge point.

People and nations around the world experience these problems at different levels. For example, some nations experience horrific inflation that impacts their life at a deep level, and some wealthy people in countries with lower inflation may not feel the effects much. But each of these problems affects billions of people.

As you might expect, in nations that experience more of these problems, Bitcoin interest and adoption is much higher! In nations where censorship is not widely practiced yet, and financial systems are working somewhat smoothly, and inflation isn’t rampant, many people can’t see as much need or use for Bitcoin.

When Bitcoin solves a problem for three billion people, and you are one of the five billion who don’t experience that particular problem, you can’t say that Bitcoin isn’t a solution that is helping. That’s simply shortsighted and provincial..!

### Problems and Solutions 1 - Debasement (Bitcoin Poem 036)

[You can see this poem on a background here.](#)

Bitcoin Poem 036 – Written 12/16/22  
Debasement (Problems/Solutions 1)  
Inspired by: Preston Pysh

The problem with fiat money  
Is centralized control of the money  
Those in control of the money creation



Always eventually yield to the temptation  
 Of inflating the overall money supply  
 Causing debasement of the currency  
 Decreasing its value for those who hold it  
 Therefore  
 People need a money that holds value  
 Or actually increases in value over time  
 This must be a money with a limited supply  
 That cannot be changed in spite of temptation  
 No person or group can be in control of this money  
 This money must be decentralized  
 The solution is Bitcoin

Here is a screenshot taken from Cato.org that shows the debasement of some currencies between January 1, 2020 and January 31, 2021, a little over a year.

### Hanke's Currency Watchlist

Currency	Date	Exchange Rate	Depreciation since January 1, 2020
Venezuelan Bolivar	1/31/2021	1,572,516.33 VES/USD	-96.76%
Zimbabwean RTGS Dollar	1/31/2021	113.00 RTGS/USD	-79.91%
Lebanese Pound	1/31/2021	9,000.00 LBP/USD	-74.44%
Sudanese Pound	1/31/2021	340.00 SDG/USD	-74.41%
Syrian Pound	1/31/2021	3,040.00 SYP/USD	-70.00%
Argentine Peso	1/31/2021	153.00 ARS/USD	-49.67%
South Sudanese Pound	1/31/2021	610.00 SSP/USD	-48.36%
Iranian Rial	1/31/2021	246,500.00 IRR/USD	-45.96%
Turkmenistan Manat	1/31/2021	29.50 TMT/USD	-35.59%
Zambian Kwacha	1/31/2021	21.37 ZMW/USD	-34.38%
Brazilian Real	1/31/2021	5.45 BRL/USD	-26.18%
Nigerian Naira	1/31/2021	480.00 NGN/USD	-24.38%
Libyan Dinar	1/31/2021	5.27 LYD/USD	-22.20%
Ethiopian Birr	1/31/2021	57.00 ETB/USD	-21.93%

Computed by Steve H. Hanke, The Johns Hopkins University.

Exchange rates are either black (read: free) market or spot exchange rates.

Note that a "-" percent change indicates a depreciation of the currency relative to the USD.

Note that some sources update periodically, but not daily.

The chart came from the page below:

<https://www.cato.org/commentary/hankes-inflation-dashboard-currency-devaluation-delusion>

Note that the depreciation is measured against the US Dollar, which is also depreciating! So the actual fall in value is even worse than what is pictured here. Problem number 1 (Debasement of the money supply) is at the root of many of the other problems.

Bitcoin addresses the issue of debasement of the money supply with fiat government currency units through its decentralized and deflationary nature. Unlike traditional fiat currencies that are subject to central bank control and government policies, Bitcoin operates on a decentralized network of nodes.

This means that no single entity, government, or institution has control over the issuance or manipulation of Bitcoin. The total supply of Bitcoin is capped at 21 million, making it immune to the inflationary pressures often associated with fiat currencies.

The decentralized nature of Bitcoin ensures that no central authority can arbitrarily increase the supply of Bitcoin, preventing the debasement of its value through inflation. In contrast, central banks have the power to print more money, leading to an increase in the money supply and, consequently, inflation. Bitcoin's fixed supply fosters confidence among its users, as they are assured that their holdings won't be eroded over time due to inflation caused by unchecked money printing.

Moreover, the transparent and immutable nature of the Bitcoin blockchain provides a clear and verifiable record of all transactions. This transparency reduces the likelihood of corruption and manipulation in the financial system. Bitcoin's decentralized and borderless nature also makes it resistant to geopolitical influences that can impact traditional currencies. This resilience further protects it from debasement caused by political or economic instability in any particular region.

In summary, Bitcoin's decentralization, fixed supply, transparency, and resistance to geopolitical influences collectively contribute to solving the problem of debasement in the money supply associated with fiat government currency units. It offers a reliable alternative for individuals seeking a store of value that is not subject to the whims of centralized authorities and the risks of inflation.

## Problems and Solutions 2 - Availability (Bitcoin Poem 037)

[You can see this poem on a background here](#)

## Availability (Problems/Solutions 2)

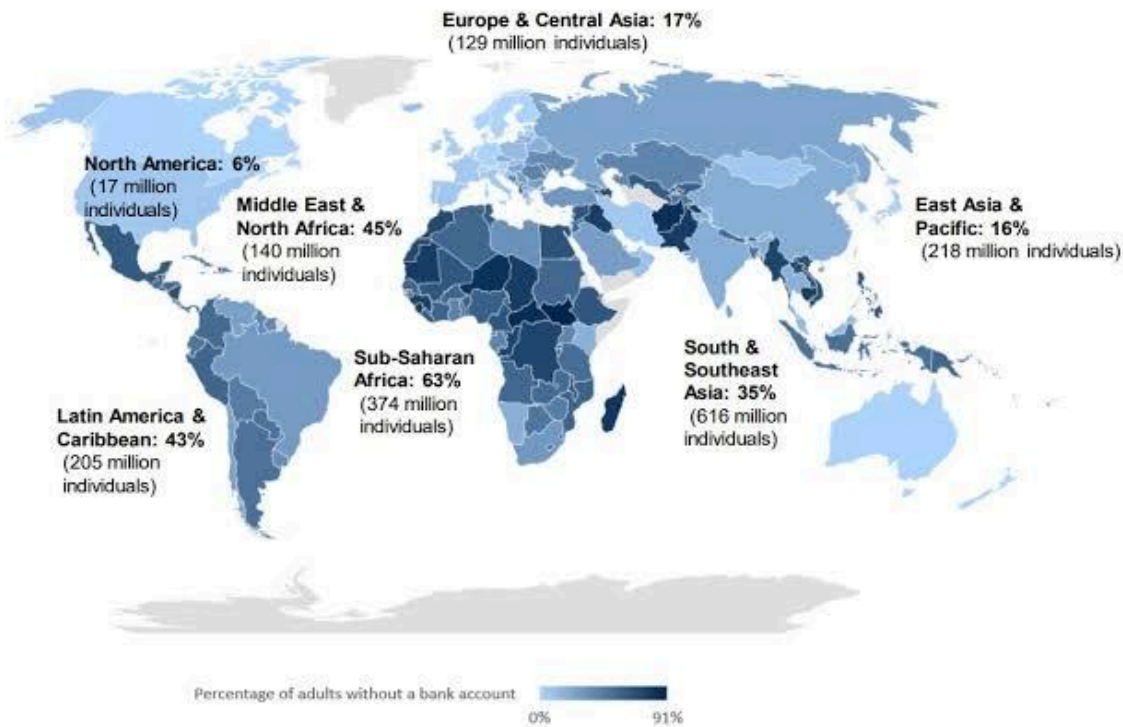
Inspired by: Alex Gladstein

Fiat money is not available to everyone  
Billions are unbanked or underbanked  
Which is inconvenient, costly, and risky  
They have no way to save value over time  
Or to borrow to start building an enterprise  
Susceptible to predatory lenders and fees  
Keeping these families in poverty and pain  
Therefore  
We need a system for all to grow wealth  
Permissionless and without discrimination  
Where people can build value securely  
And create a life for themselves and for  
Generations to come across the earth  
We need a money truly available to all  
The solution is Bitcoin - come join today

According to the World Bank, around 1.4 billion adults worldwide are unbanked. This is close to one-fourth of the world's population.

See the image below to see which countries have more people using banking services, and which have largely unbanked populations.

### Proportion of adult population without access to financial services



67

Bitcoin plays a crucial role in addressing the issue of financial inclusion by providing a decentralized and accessible financial system for the unbanked population around the world. A significant proportion of the global population, often referred to as the "unbanked," lacks access to traditional banking services due to various reasons, such as living in remote areas, lacking proper identification, or facing exclusion based on economic status.

Bitcoin's decentralized nature allows individuals to participate in the global economy without the need for traditional banking infrastructure.

Firstly, Bitcoin operates on a peer-to-peer network, enabling direct transactions between users without the need for intermediaries like banks. This eliminates the barriers that traditional banking systems impose, making financial services more readily available to those without access to traditional banks. Anyone with an internet connection and a digital wallet can participate in the Bitcoin network, providing financial inclusion to the unbanked population.

Secondly, Bitcoin serves as a store of value and a means of transferring value across borders. In regions where traditional banking infrastructure is limited or nonexistent, individuals can use Bitcoin as a secure and efficient alternative for storing and transferring wealth. This is particularly impactful in areas where people face currency

volatility, high inflation, or political instability, providing a more reliable and accessible financial option.

Thirdly, the permissionless nature of Bitcoin allows individuals to create and manage their own digital wallets without relying on approval from financial institutions. This is particularly empowering for those who lack access to formal identification or credit history, as Bitcoin transactions are based on cryptographic keys rather than personal information.

Bitcoin's decentralized, borderless, and permissionless characteristics make it a powerful tool for promoting financial inclusion. It provides the unbanked population with access to a global financial system, allowing them to store value, engage in peer-to-peer transactions, and participate in economic activities without relying on traditional banking infrastructure.

This has the potential to uplift millions of individuals who have been excluded from the formal financial system, fostering economic empowerment and financial autonomy.

## Problems and Solutions 3 - Censorship (Bitcoin Poem 038)

[You can see this poem on a background here](#)

Bitcoin Poem 038 – Written 12/30/22

Censorship (Problems/Solutions 3)

Inspired by: Bitcoin.org

A problem with fiat centralized money

Is that monetary accounts can be frozen

Censoring people or nations who refuse

To follow the narrative of those in control

Monetary officials who decide who can use

Money and who is not allowed to use money

Because of their beliefs or ideas or support

Therefore

Because people hold varying beliefs in life

Let's use a money that can't be frozen at all

Because this money remains private property

Money that can be held and used by those

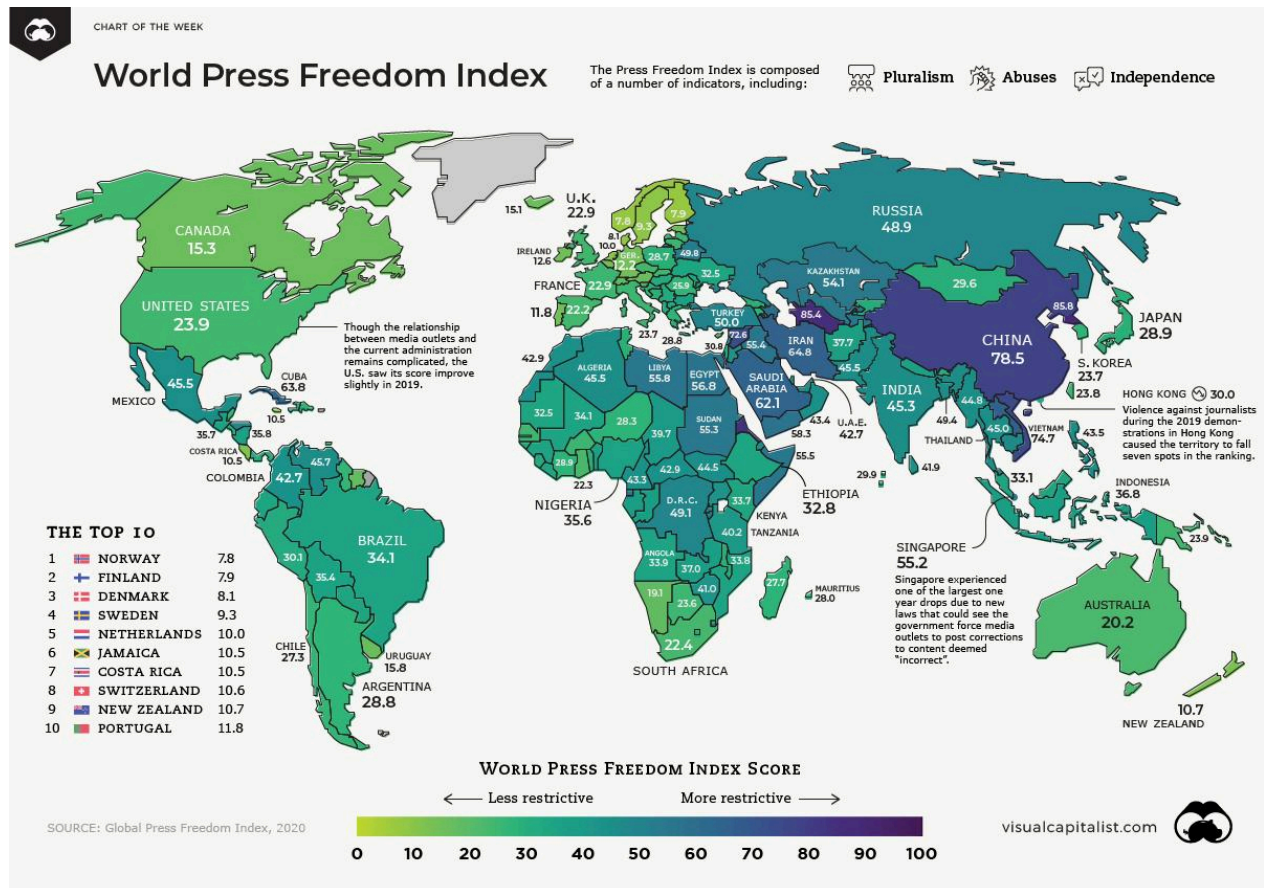
On opposite sides of any issue or decision

A bearer asset that is censorship resistant

This money exists - the solution is Bitcoin



See the image below for some indication of press freedom vs. censorship in countries. I do believe more countries are moving toward censorship. This image is from VisualCapitalist.com.



Bitcoin acts as a powerful tool against financial censorship by providing individuals with a censorship-resistant means of transacting and storing value. In various instances, governments or financial institutions may freeze assets or restrict financial transactions to enforce a particular narrative or political agenda. Bitcoin, being decentralized and borderless, allows users to maintain control over their funds without the risk of censorship.

First, The decentralized nature of the Bitcoin network ensures that there is no single point of control or authority. Traditional financial systems often rely on centralized entities such as banks or governments, which can be influenced or coerced to freeze assets or block transactions. Bitcoin, on the other hand, operates on a peer-to-peer network of nodes globally, making it resistant to censorship attempts. No central authority has the power to arbitrarily freeze or confiscate Bitcoin funds, providing individuals with financial autonomy.

Second, Bitcoin transactions are pseudonymous, meaning that users can conduct financial transactions without revealing their identities. This anonymity protects individuals from potential repercussions or censorship based on their beliefs, activities, or political affiliations. While the blockchain records all transactions, the identities of users are not directly tied to their wallet addresses, adding a layer of privacy that is absent in traditional financial systems.

Third, Bitcoin's borderless nature enables individuals to conduct transactions across international boundaries without being subject to the financial regulations of any specific jurisdiction. This is particularly important for those living in regions with oppressive regimes or where financial censorship is prevalent. Users can send and receive Bitcoin globally, bypassing restrictions imposed by local authorities and preserving their financial freedom.

Bitcoin provides a decentralized, pseudonymous, and borderless alternative to traditional financial systems, making it resistant to censorship. Users can transact and store value without fear of asset freezing or transaction blocking based on political or ideological reasons. This empowers individuals to exercise their financial freedoms without being subject to the control of centralized entities, fostering a more open and censorship-resistant financial ecosystem.

## Problems and Solutions 4 - Trust (Bitcoin Poem 039)

[You can see this poem on a background here](#)

Bitcoin Poem 039 – Written 1/6/23

Trust (Problems/Solutions 4)

Inspired by: Satoshi Nakamoto

Fiat money relies on intermediaries

Such as banks and government entities

To facilitate transactions and keep records

And ensure the integrity of the money system

This system requires trust to make it function

Yet the history of fiat currencies is replete with

Breaches of that trust - breaches of integrity

Therefore

Let's move to a new money not based on trust

With no reliance on any centralized authority

But peer to peer verification through code

Made secure by a decentralized network  
Allowing any and every user to validate  
Their own (and all) money transactions  
This is Bitcoin. Don't trust, but verify.

### Rule#

1. Don't Trust
2. Verify
3. Follow 1 & 2 Every time

With fiat money, transactions are facilitated through banks and government entities, necessitating trust in these centralized authorities to maintain the integrity of the monetary system. However, this trust has often been betrayed throughout the history of fiat currencies, as Satoshi remarked in the Bitcoin White Paper, marked by breaches and instances of compromised integrity.

Bitcoin emerges as a transformative alternative, proposing a paradigm shift away from reliance on trust in centralized entities. The fundamental concept revolves around a decentralized network that operates on a peer-to-peer basis, cutting out the need for intermediaries. In this new monetary landscape, transactions are verified through code, and the security of the system is ensured by a decentralized network of nodes.

The call to "move to a new money not based on trust" reflects the ethos of Bitcoin, emphasizing the importance of verification over blind trust. By embracing a trustless system, users are empowered to validate their own transactions and contribute to the validation of the entire network. This trustless nature is encapsulated in the famous mantra associated with Bitcoin: "Don't trust, but verify." It encapsulates the philosophy that users can have confidence in the system not through blind trust but through the transparent and verifiable nature of blockchain technology.

In essence, Bitcoin represents a departure from the traditional financial model, offering a decentralized, transparent, and trustless framework that allows users to have greater control and verification over their financial transactions. This is a new era of financial autonomy and security.

## Problems and Solutions 5 - Privacy (Bitcoin Poem 040)

[You can see this poem on a background here](#)



Bitcoin Poem 040 – Written 1/13/23

Privacy (Problems/Solutions 5)

Inspired by: Andreas Antonopoulos

Current money systems usually collect

Lots of personal information about users

This information can be vulnerable to hacks

And also identity theft, control, and censorship

Many people do not want sensitive personal

Information and documents stored online

Therefore

Since it's not criminal to want some privacy

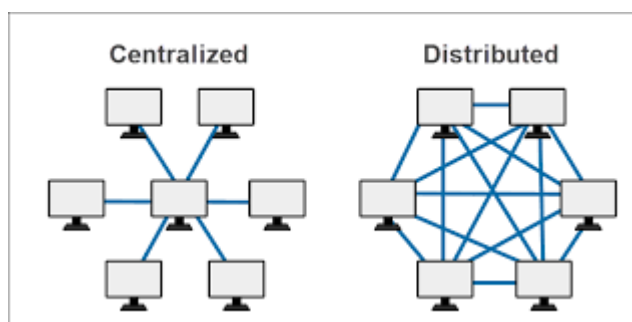
Let's use a money system that doesn't require

Personal information simply to use money

And doesn't require submitting documents

Which remain on vulnerable databases

We have this money now, in Bitcoin



Bitcoin is a solution to financial privacy concerns. Here are some more specifics on how Bitcoin protects privacy:

Minimal Personal Information Requirement:

In traditional financial systems, individuals are often required to provide extensive personal information for transactions. This includes details such as names, addresses, and sometimes even social security numbers. Bitcoin transactions, on the other hand, do not require users to disclose their personal details. Bitcoin doesn't care who uses the network, it can even be a computer, an alien, or a smart chimp.

Reduced Vulnerability to Hacks:

Traditional banking systems and online platforms storing personal information are susceptible to cyber attacks and hacks. Hackers know these centralized databases are “honeypots” of information. Bitcoin operates on a decentralized blockchain, making it more resistant to such attacks. The distributed nature of the blockchain ensures that there is no central point of failure, enhancing security.

#### Mitigation of Identity Theft:

The collection of extensive personal information in traditional systems can increase the risk of identity theft. Since Bitcoin transactions don't necessitate the disclosure of personal details, the potential for identity theft is significantly reduced.

#### Freedom from Centralized Control and Censorship:

Traditional financial systems are subject to centralized control, and authorities can impose censorship on transactions. Bitcoin operates on a decentralized network, providing users with more autonomy and preventing any single entity from controlling or censoring transactions.

#### User Preference for Privacy:

Many individuals are concerned about the storage of sensitive personal information online. Bitcoin, by design, allows users to maintain financial privacy without compromising security. This aligns with the preference of individuals who seek to keep their financial activities private.

#### Escape from “Criminalization of Privacy”:

Desiring financial privacy should not be considered a criminal act. Bitcoin allows users to conduct transactions without being subject to intrusive scrutiny, emphasizing the idea that privacy in financial matters is a basic right.

#### Absence of Document Submission:

Traditional financial transactions often require the submission of various documents, which are stored in centralized databases. Bitcoin transactions are document-free, eliminating the risk associated with storing sensitive information in vulnerable databases.

## Problems and Solutions 6 - Finality (Bitcoin Poem 041)

[You can see this poem on a background here](#)

Bitcoin Poem 041 – Written 1/20/23  
Finality (Problems/Solutions 6)  
Inspired by: TimeChainStats.com

Physical cash transactions are final  
But in the digital world non-reversible  
Transactions have not been possible  
Since financial institutions cannot avoid  
Mediating disputes which prevent finality  
The cost of mediation slows enterprise  
And makes trade and finance complex  
Therefore  
We need an electronic payment system  
Based on cryptographic proof, not trust  
Allowing any two parties to transact directly  
With irreversible transactions based on a  
Distributed timestamp server to generate  
Proof of the chronology of the transactions  
And thus finality. The solution is Bitcoin

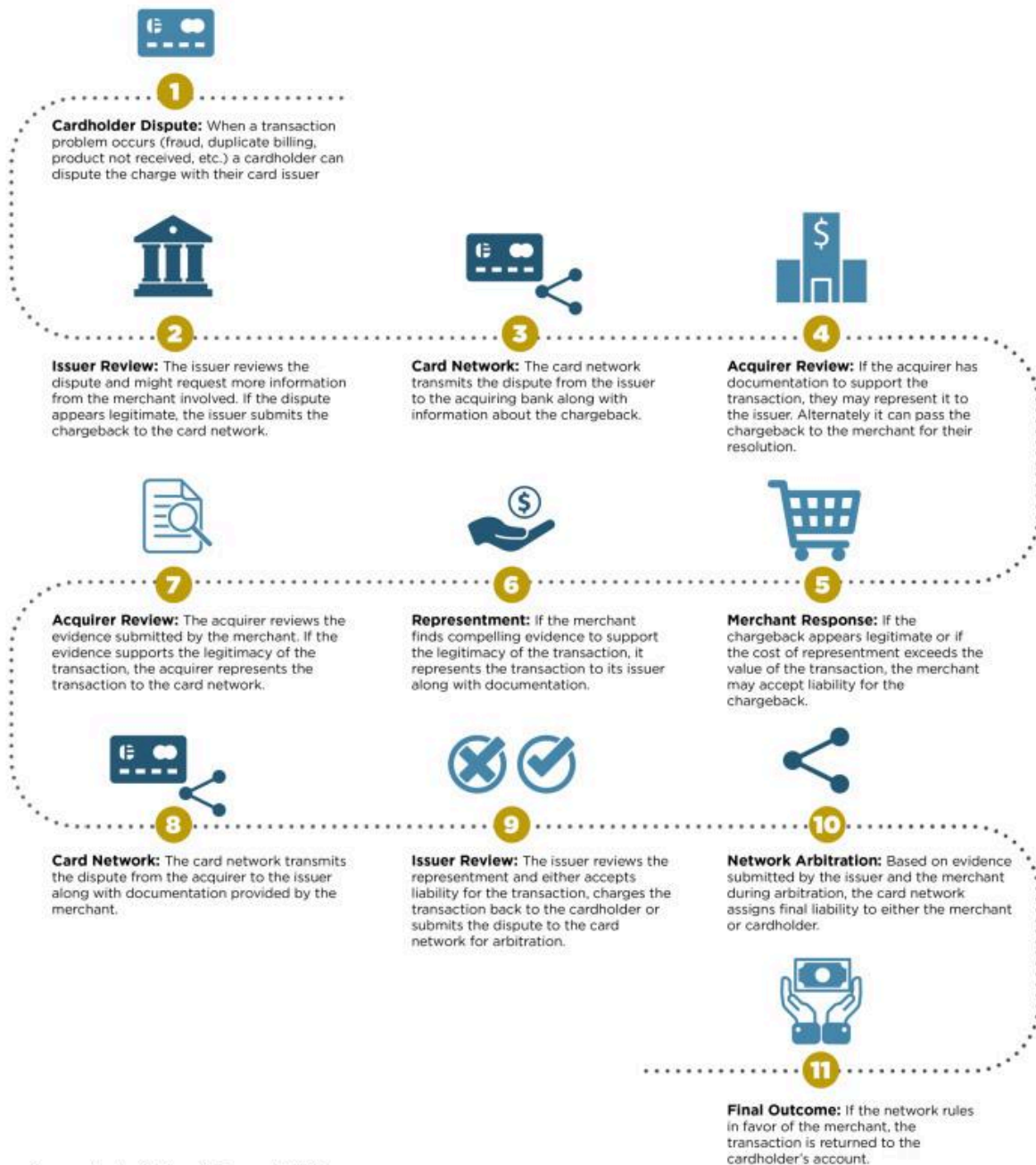
While physical cash offers instant and irreversible finality, digital transactions have historically lacked this crucial element. Traditional financial institutions act as trusted intermediaries, settling disputes and mediating transactions, but at the cost of slowness, complexity, and fees. Imagine the frictionless exchange of value, like handing over cash, but instantaneously across borders and without middlemen – that's the promise of Bitcoin's finality solution.

Chargebacks cost billions of dollars each year, and are mostly borne by the merchants.

The flowchart below shows the many steps required when non-final payments are disputed (sometimes frivolously).

## CHARGEBACK LIFECYCLE OVERVIEW

Figure 1: Simplified Chargeback Flow



Source: Javelin Strategy & Research, 2018

[Image above from Payments Cards and Mobile Website](#)

Through its ingenious design, Bitcoin eliminates the need for trust by relying on cryptographic proof, not promises or intermediaries. Every transaction is validated by the network of distributed miners, who compete to secure the network and earn the right to add new blocks to the blockchain.

Once a block is added, the transactions within it become cryptographically linked to all previous blocks, creating an immutable and publicly verifiable record. This distributed timestamp server ensures the irreversible chronology of transactions, guaranteeing unprecedented finality in the digital world.

No amount of dispute or manipulation can undo a confirmed Bitcoin transaction. This removes the need for slow and expensive mediations, simplifies international trade and finance, and opens up a world of faster, cheaper, and more secure financial interactions. With Bitcoin, finality becomes inherent in the system itself, a powerful testament to the transformative potential of cryptographic innovation.

Bitcoin not only streamlines trade and finance but also introduces a level of efficiency and transparency previously unattainable in the digital financial landscape.

## Problems and Solutions 7 - Fees (Bitcoin Poem 042)

[You can see this poem on a background here](#)

Bitcoin Poem 042 – Written 1/27/23

Fees (Problems/Solutions 7)

Inspired by: Bitcoin.ClarkMoody.com

Traditional financial systems often

Charge high fees for many services

Especially certain types of transactions

Such as remittances, credit card payments

Wire transfers, and late payment charges

Remittances alone charge 6 percent of the

Amount sent globally from one to another

Therefore

Let's save billions of dollars for real people

By moving to a system with much lower fees

For transferring money anywhere on earth

Bitcoin's transaction fees are quite small

Especially when using lightning protocol

Imagine the savings and the freedom

As billions start using Bitcoin soon

<https://www.bitcoinpoems.pro/delivery042Fees.html>

Bitcoin presents an opportunity to significantly reduce financial fees compared to traditional systems. With its decentralized nature and innovative technology, Bitcoin transactions typically incur lower fees, especially when utilizing protocols like the Lightning Network.

By leveraging Bitcoin for money transfers, individuals can potentially save substantial amounts of money, particularly on services like remittances, wire transfers, and credit card payments, where fees can be notably high.

This shift to Bitcoin has the potential to generate significant savings for users globally and promote greater financial inclusivity by reducing barriers to accessing affordable financial services.

## Problems and Solutions 8 - Distortion (Bitcoin Poem 043)

[You can see this poem on a background here](#)

Bitcoin Poem 043 – Written 2/3/23

Distortion (Problems/Solutions 8)

Inspired by: Jack Mallers

Modern Monetary Theory (MMT) claims

That money must be managed or controlled

Actively setting a price (and supply) of money.

Artificially low or high interest rates lead to loss

Of signal which leads to misallocation of capital

Which leads to market bubbles and collapses

Therefore

Let's use a money that can never be distorted

In either price or supply by any group at all

This will be a money that gives true signals

About capital allocation to needed projects

Based on free market principles and work

What money can't be distorted? Bitcoin

Modern Monetary Theory (MMT), advocates for active management and control of currency, including the manipulation of interest rates to steer economic activity. However, critics argue that such interventions often lead to distortions in the market signals, resulting in misallocations of capital, market bubbles, and subsequent collapses.

A money system more immune to such manipulations would provide more accurate signals for capital allocation, promoting a healthier, more stable economic environment.

Bitcoin includes a decentralized ledger (and consensus) and fixed supply. Operating outside the influence of any central authority, Bitcoin's price and supply are determined mostly by market forces. This characteristic renders it resistant to manipulation and distortion, offering a potential solution to the shortcomings associated with traditional fiat currencies.

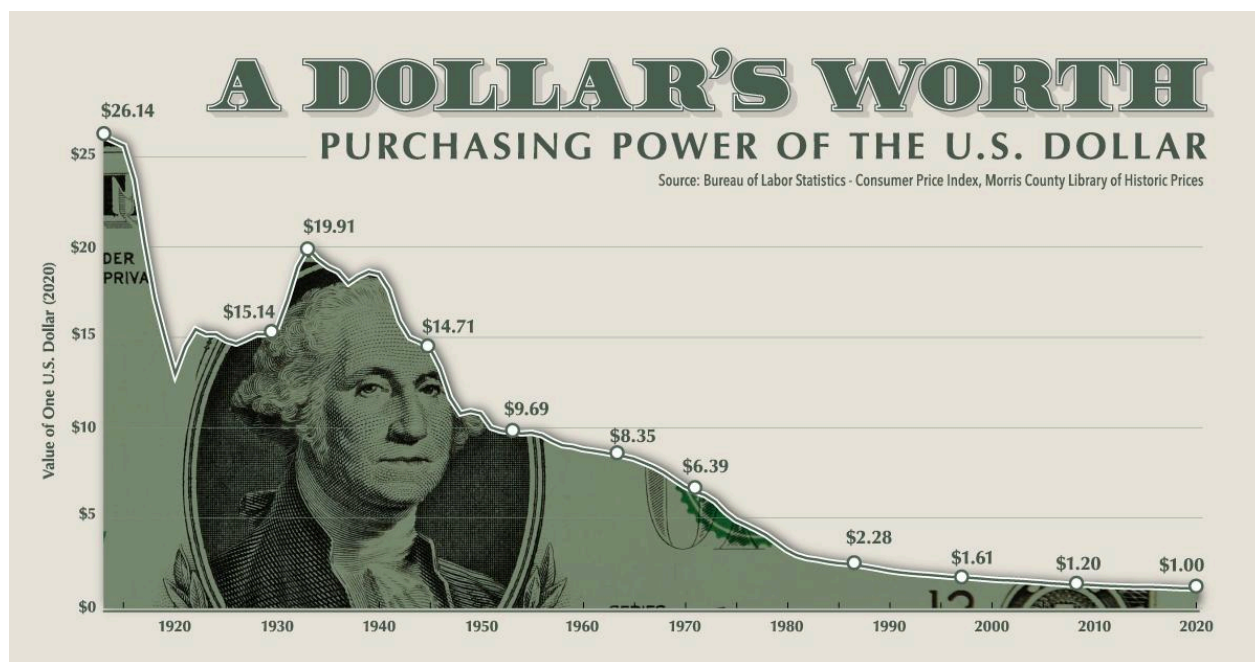
Advocates of Bitcoin hold it up as a means for true market signals to prevail, fostering a more transparent and efficient allocation of resources. In this vision, Bitcoin represents not only a currency but also a symbol of economic freedom and a beacon for those seeking to mitigate the distortions often inherent in centralized monetary systems.

## Problems and Solutions 9 - Sound Money (Bitcoin Poem 045)

[You can see this poem on a background here](#)

Bitcoin Poem 045 – Written 2/17/23  
 Sound Money (Problems/Solutions 9)  
 Inspired by: Mark Moss

Fiat money is unsound money  
 Because governments can print  
 More of this money at low or no cost  
 The printing of more money is so easy  
 That those in power can never resist the  
 Urge to create new money for their use  
 The fiat supply remains unpredictable  
 Therefore  
 Let's use a money with known supply  
 The solution is to create a limited money  
 That has a cost to the creation of units  
 This money would be sound if no group  
 Or person has the option to issue new  
 Money beyond what was programmed  
 In code from the start. This is Bitcoin



Fiat money, often criticized as unsound, derives its value from government decree rather than intrinsic worth. One of the primary criticisms of fiat currency lies in its susceptibility to manipulation, particularly through the process of money creation.

Governments possess the authority to print more money at relatively low or no cost, leading to an increase in the money supply. This ease of money creation can tempt those in power to pursue policies that prioritize short-term gains over long-term stability, resulting in inflation and economic uncertainty. The unpredictable nature of fiat money's supply undermines its credibility as a store of value and a medium of exchange.

In contrast, proponents of alternative monetary systems, such as Bitcoin, advocate for a more disciplined approach to money creation. Bitcoin operates on a decentralized network, governed by a predetermined set of rules embedded in its code. The supply of Bitcoin is limited, with a maximum cap of 21 million coins, ensuring scarcity akin to precious metals like gold.

Moreover, the creation of new Bitcoin units, known as mining, requires significant computational resources, introducing a cost to the process. This system of controlled supply and costly creation gives Bitcoin the characteristics of sound money, free from the whims of any central authority or government. Advocates argue that Bitcoin's transparent and predictable monetary policy offers a more reliable foundation for economic transactions and long-term wealth preservation.

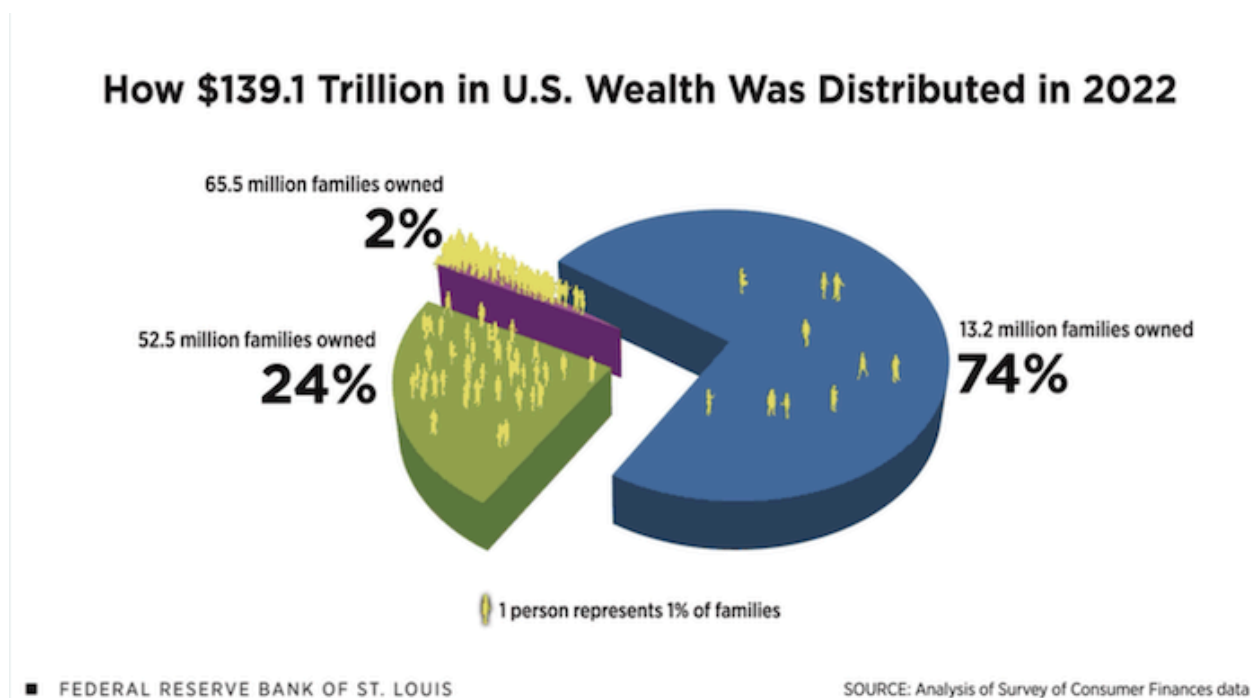
Problems and Solutions 10 - Wealth Gap (Bitcoin Poem 046)



[You can see this poem on a background here](#)

Bitcoin Poem 046 – Written 2/24/23  
 Wealth Gap (Problems/Solutions 10)  
 Inspired by: Luke Broyles

When fiat money is printed freely  
 Certain groups benefit more than others  
 Wealthy people who hold assets tend to  
 Reap the benefits as their assets increase  
 In proportion to the new money, while those  
 Who rely on fixed incomes or savings lose  
 Much of their purchasing power and wealth  
 Therefore  
 We need a money where people can trust  
 That their money will retain or increase in  
 Value and purchasing power. This money  
 Will help the poor save with confidence  
 For themselves and also their children  
 Leading to a brighter future for every  
 Person, when saving with Bitcoin



[Source for image](#)

In most countries we have a disparity perpetuated by the unrestricted printing of fiat money, where the wealthy thrive on the inflation of their assets while those dependent on fixed incomes or savings suffer the erosion of their wealth. Bitcoin provides a solution, offering a decentralized store of value that can restore trust in the stability and purchasing power of money.

With Bitcoin, individuals can save with confidence, knowing that their wealth won't be subject to arbitrary devaluation through inflation. This empowerment extends beyond the present generation, as the ability to save and accumulate wealth securely enables families to invest in the future prosperity of their children. By providing a reliable store of value, Bitcoin holds the promise of narrowing the wealth gap and fostering a more equitable society.

In embracing Bitcoin, individuals gain control over their financial destinies, free from the whims of centralized authorities. This shift towards a decentralized currency not only promotes financial inclusion but also lays the groundwork for a brighter and more equitable future for all.

As more people recognize the potential of Bitcoin to mitigate the wealth gap, its adoption could catalyze meaningful socioeconomic transformation, ushering in an era of prosperity and opportunity for generations to come.

## Problems and Solutions 11 - War (Bitcoin Poem 047)

[You can see this poem on a background here](#)

Bitcoin Poem 047 – Written 3/3/23

War (Problems/Solutions 11)

Inspired by: Alex Gladstein

The United States sustains their forever

Wars because it's easy to borrow capital

It's easy to borrow as the Federal Reserve

Literally prints money in Quantitative Easing

And keeps the interest rate forcibly very low

This allows billions to flow to forever wars

Therefore

If we let the market determine interest rates

And if we move to a hard money standard

Such as Bitcoin, with an immutable supply

Then unpopular or unproductive wars are

Much harder for governments to sustain  
Leading to more safety and more peace

A hard money standard (Bitcoin) with a finite and immutable supply has the potential to reshape the dynamics of global finance and geopolitics, particularly concerning the propensity for perpetual warfare.

The current monetary system, characterized by fiat currencies and central banks with the power to manipulate money supply and interest rates, facilitates governments' ability to finance wars through borrowing and inflationary measures. The United States, in particular, has been able to sustain its prolonged military engagements, often termed "forever wars," due to the ease with which it can borrow capital and manipulate its currency.

Under the current system, central banks like the Federal Reserve can implement policies such as quantitative easing and artificially low interest rates to inject liquidity into the economy, making it easier for governments to borrow money for military endeavors. This easy access to capital, combined with the lack of fiscal discipline, has enabled governments to engage in unpopular or unproductive wars for extended periods.

Transitioning to a hard money standard, where the supply of currency is fixed and determined by market forces rather than centralized institutions, could significantly alter this dynamic. In such a system, governments would no longer have the ability to simply print money or manipulate interest rates to fund their military ventures. Instead, they would be constrained by the finite supply of money and subject to the discipline of market-driven interest rates.

By removing the ability of governments to finance wars through inflationary measures and easy borrowing, a hard money standard can make unpopular or unproductive wars economically unsustainable. Without the ability to simply create money out of thin air, governments would be forced to rely on direct taxation or budget reallocations to fund military endeavors, making it much more difficult to sustain prolonged conflicts.

In this way, a hard money standard has the potential to promote peace and security by limiting the financial resources available for warfare. By aligning economic incentives with the pursuit of peace, such a system could help foster a more stable and harmonious international order, where conflicts are resolved through diplomacy and negotiation rather than military force.

**Problems and Solutions 12 - Stability (Bitcoin Poem 048)**

[You can see this poem on a background here](#)

Bitcoin Poem 048 – Written 4/3/23

Stability (Problems/Solutions 12)

Inspired by: James Lavish

The fractional reserve banking system

Is built on an unstable foundation where

Not all depositors can access money freely.

Since banks can lend more than they have

This regularly leads to credit & asset bubbles

And then business failures during downturns

Therefore

Let's move to a more stable system where

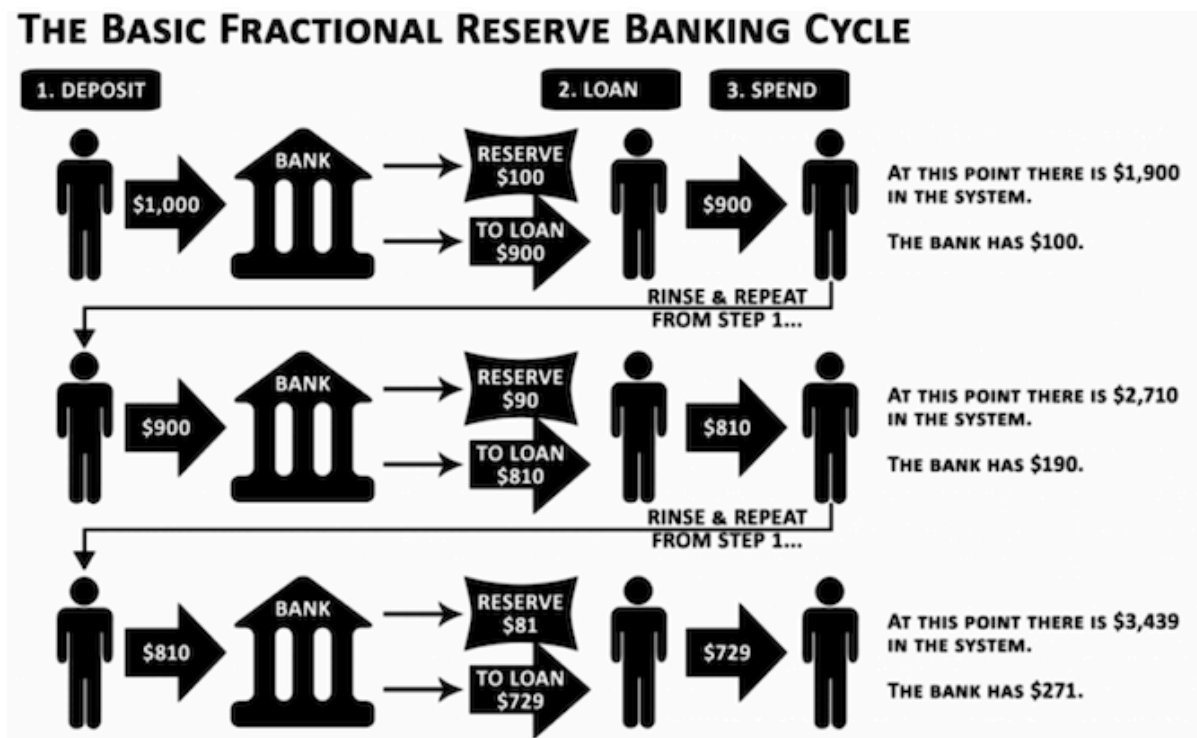
There is no central authority which people

Need to trust with their deposits, an open

And accurate ledger where everyone can

Simply verify that their money is secure

With Bitcoin this technology is available



[Image from Research Gate website:](#)

In the fractional reserve system, banks are allowed to lend out more money than they actually hold in reserves, leading to a situation where not all depositors can access their funds simultaneously. This inherent instability can result in credit and asset bubbles, as well as systemic failures during economic downturns, as witnessed in various financial crises throughout history.

Moving towards a system of full reserve banking, where banks are required to hold 100% of their deposits in reserve, offers a solution to this instability. By ensuring that all depositors have immediate access to their funds, the risk of bank runs and financial panics is greatly reduced. This stability is further reinforced by the adoption of a hard money standard, such as Bitcoin, where the money supply is fixed and not subject to manipulation by central authorities.

Bitcoin's decentralized and transparent ledger provides security and integrity of financial transactions without the need for a central authority. Every transaction on the Bitcoin network is recorded on the blockchain and verified by a network of decentralized nodes, making it virtually impossible to manipulate or counterfeit.

By leveraging the technology underlying Bitcoin, individuals can have confidence that their money is secure and accessible at all times. The open and accurate ledger allows for anyone to verify the integrity of their transactions, eliminating the need to trust a central authority with their deposits. This increased transparency and security pave the way for a more stable financial system, free from the boom-and-bust cycles that plague traditional fractional reserve banking.

In conclusion, transitioning to a system of full reserve banking coupled with a hard money standard like Bitcoin offers the potential for greater stability and security in the financial system. By eliminating the risks associated with fractional reserve banking and central authority control, individuals can have greater confidence in the safety and accessibility of their money, leading to a more resilient and sustainable economy.

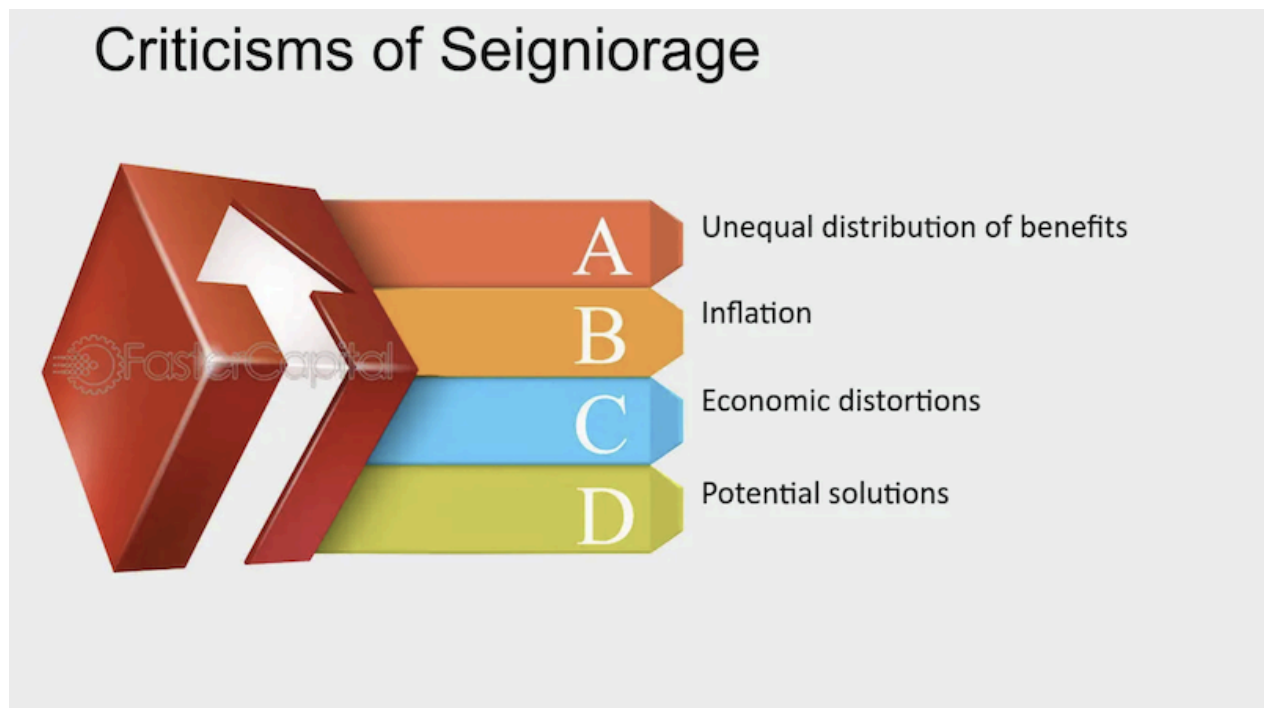
## Problems and Solutions 13 - Seignorage (Bitcoin Poem 051)

[You can see this poem on a background here](#)

Bitcoin Poem 051 – Written 4/24/23  
Seignorage (Problems/Solutions 13)  
Inspired by: Robert Breedlove

Seigniorage refers to the profits  
A government earns by creating and

Issuing new currency for a nation, but  
 The seigniorage benefits those in power  
 Who receive the new money first via the  
 Cantillon effect. Specifically, the Federal  
 Reserve, the US Treasury, & large banks  
 Therefore  
 In order to foster more equality in finance  
 We can move to a decentralized currency  
 In the Bitcoin network the profits earned  
 From creating new bitcoin are given out  
 To those who work maintaining and  
 Securing the network, rather than to  
 Any centralized person or group



[Image is from Faster Capital Website](#)

The Faster Capital Website has an amazing step by step article on seigniorage, and you can learn a lot by reading it. You can learn the WHY and HOW of seigniorage, the role of Central banks, and all the drawbacks. [You can read this Faster Capital Article Here.](#)

Bitcoin has the potential to promote equity in finance by eliminating seigniorage. Seigniorage refers to the profits generated by a government through the creation and issuance of new currency. In traditional monetary systems, seigniorage benefits those in positions of power, such as central banks, treasuries, and large financial institutions, who receive the newly created money first through the Cantillon effect.

This unequal distribution of seigniorage exacerbates economic inequality by disproportionately enriching those already in privileged positions.

However, with Bitcoin's decentralized nature, seigniorage is fundamentally altered. Instead of benefiting a select few, the profits earned from creating new bitcoins are distributed to individuals who contribute to the maintenance and security of the network. This process, known as mining, involves using computational power to validate and record transactions on the blockchain.

By rewarding miners with newly created bitcoins, rather than centralizing profits in the hands of a privileged few, Bitcoin fosters a more equitable distribution of wealth within the financial ecosystem.

Bitcoin's model of distributing seigniorage rewards to network participants democratizes the process of wealth creation in finance. By removing the reliance on centralized authorities and empowering individuals to participate in the network, Bitcoin promotes a more inclusive and fair financial system where wealth is generated through merit and contribution rather than inherited privilege or access to power. This shift towards decentralization has the potential to reduce systemic inequalities and promote greater economic empowerment for individuals across the globe.

## Problems and Solutions 14 - Surety (Bitcoin Poem 058)

[You can see this poem on a background here](#)

Bitcoin Poem 058 – Written 6/14/23

Surety (Problems/Solutions 14)

Inspired by: Clark Moody's Bitcoin Dashboard

In the current financial system we never can  
 Know the future increase of money supply as  
 This is decided by a few powerful people who  
 Are not elected or chosen by the citizens, yet  
 Rig the game for the benefit of those in power  
 Monetary Inflation rate for 2024? We don't know  
 Monetary Inflation rate for 2025? We don't know  
 Therefore  
 Let's gain surety by using a Bitcoin Standard  
 Which has a perfectly predictable issue rate  
 The new coin inflation rate for 2023? 1.78%

Inflation rate after halving in 2024? 1.1%  
Knowing these figures exactly for the next  
100 years and more gives people surety  
And businesses foresight and stability

Bitcoin's predictable supply is a big advantage because it gives people more certainty for planning their lives. Unlike traditional money, where a few people decide how much money gets made, Bitcoin works differently. With Bitcoin, the amount of new coins created is set by an algorithm that everyone can see. No one person or group can change this to benefit themselves.

In our current money system, decisions about how much new money to make are made by officials who are not elected, and their choices can be influenced by their own interests. This lack of transparency and control can make people feel unsure and distrustful.

But with Bitcoin, things are clear. The rate at which new Bitcoins are created is known in advance and is open for everyone to see. This means that people and businesses can plan for the future with confidence, knowing exactly how much new Bitcoin will be made each year.

For example, Bitcoin's inflation rate is calculated and made public, so people can see how much new Bitcoin will be created in the future. This transparency helps people make smart decisions about their money.

By removing the uncertainty around how much new money will be created, Bitcoin helps create a stable and strong financial system that benefits everyone.

## Problems and Solutions 15 - Portability (Bitcoin Poem 064)

[You can see this poem on a background here](#)

Bitcoin Poem 064 – Written 8/28/23  
Portability (Problems/Solutions 15)  
Inspired by: Matthew Kratter

Gold is not easily portable due  
To gold's weight and risk of theft  
The paper currency originally built  
On top of gold can be moved faster  
And digital money even more quickly



Yet is controlled and limited through  
Centralized entities that limit transfers  
Therefore  
We need a money that is lightweight  
And easily transported anywhere at  
Very low cost, AND has no controls  
Or censorship - truly open to people  
Everywhere in the world - a money  
Very hard to steal, but easy to send  
Bitcoin is supremely portable money

Bitcoin is both lightweight and easily transferable, while also being resistant to censorship and control. Unlike physical assets like gold, which are cumbersome to transport due to their weight and susceptibility to theft, Bitcoin exists purely in digital form, allowing for seamless and instantaneous transactions across borders and continents. This inherent portability makes Bitcoin an ideal medium of exchange for a globalized world where individuals and businesses need to move money quickly and efficiently.

Bitcoin's decentralized nature ensures that transactions cannot be censored or controlled by any single authority or institution. Traditional forms of digital money, such as bank transfers or electronic payments, are subject to the whims of centralized entities that can impose restrictions or fees on transactions.

In contrast, Bitcoin operates on a peer-to-peer network, where transactions are validated and recorded by a distributed network of nodes, eliminating the need for intermediaries and ensuring that transfers cannot be arbitrarily blocked.

This unparalleled combination of portability, security, and freedom from censorship makes Bitcoin uniquely suited for facilitating global commerce and financial inclusion. Whether sending remittances to family members in another country, conducting cross-border trade, or simply transferring funds between individuals, Bitcoin offers a borderless and censorship-resistant alternative to traditional forms of money.

By empowering individuals with greater control over their finances and removing barriers to financial access, Bitcoin's portability and speed are already fostering economic empowerment and prosperity in areas where adoption is high.

## Problems and Solutions 016 - Fallibility (Bitcoin Poem 071)

[You can see this poem on a background here](#)

Bitcoin Poem 071 – Written 10/17/23  
Fallibility (Problems/Solutions 16)  
Inspired by: Erik Cason's book Cryptosovereignty

Humans are fallible in many ways  
One way human weakness is shown  
Is by inevitably debasing a money supply  
NO human has been able to resist the short  
Term gain for those in power, but only pain  
And suffering for the majority of the people  
Therefore  
Since we can't make infallible human beings  
We must move the money supply out of the  
Control of humans completely. We do this  
Through cryptography and mathematics  
Bitcoin is the rules based decentralized  
Solution for this human fallibility issue

Bitcoin solves the problem of human fallibility when it comes to money by taking the power of money creation out of human hands. Throughout history, humans have consistently succumbed to the temptation to debase or manipulate the money supply for short-term gain, often at the expense of the majority of people. This cycle of debasement has led to economic instability, inflation, and inequality.

Recognizing the inherent flaws in human nature, Bitcoin introduces a revolutionary solution by removing control over the money supply from any individual or centralized authority. Instead, Bitcoin operates based on rules dictated by cryptography and mathematics, ensuring that the issuance of new bitcoins follows a predetermined and transparent protocol.

This decentralized approach eliminates the possibility of human intervention or manipulation, making the Bitcoin network immune to the fallibility and self-interest of individuals.

By relying on cryptography and mathematical algorithms, Bitcoin creates a system where the rules are enforced by code rather than by fallible human judgment. This not only removes the potential for abuse and manipulation but also fosters trust and confidence in the integrity of the monetary system.

Bitcoin represents a rules-based solution to the age-old problem of human fallibility in monetary policy, offering a decentralized and transparent alternative that puts power back into the hands of the people.

## Problems and Solutions 017 - Home Affordability (Bitcoin Poem 079)

[You can see this poem on a background here](#)

Bitcoin Poem 079 – Written 12/19/23  
Home Affordability (Problems/Solutions 17)  
Inspired by: Preston Pysh

When people can't save value  
 In their money system, because  
 Of debasement of the currency,  
 Then they learn to save in assets.  
 Houses remain the top choice to  
 Save and preserve monetary value  
 Which leads to higher priced homes  
 Therefore  
 If we have a hard money that holds  
 Value then people can simply save  
 In money and home prices will drop  
 To the normal utility value of a home  
 This will make homes more affordable  
 For more people across the world  
 Bitcoin is the hard money solution

When people can't save value in their money system because the currency loses value due to debasement, they tend to look for other ways to store their wealth. One popular choice has been houses. People buy houses not just to live in, but also to preserve the value of their money. This demand for houses as an investment leads to higher prices, making homes less affordable for many.

This is a huge problem.

However, if we have a hard money system, like Bitcoin, that holds its value over time, people wouldn't need to rely on houses as much to preserve their wealth. Instead of investing in houses, they could simply save their money in Bitcoin, knowing that its value

will hold steady. This would reduce the demand for houses as investments, leading to more reasonable prices based on the actual utility of the home.

With lower housing prices, more people around the world would be able to afford homes. This shift away from using houses as stores of value or investments towards a reliable hard money system like Bitcoin could make the dream of owning a home a reality for many who are currently priced out of the market.

This may be starting to happen already.

One indicator is the increasing adoption and acceptance of Bitcoin as an investment vehicle. Over the years, Bitcoin has gained mainstream recognition and acceptance as a legitimate store of value, with more institutional investors, corporations, and individuals allocating portions of their portfolios to Bitcoin. This suggests that some people may be choosing to invest in Bitcoin as a hedge against currency devaluation or economic uncertainty, rather than solely relying on traditional assets like real estate.

Additionally, there have been instances where individuals or organizations have publicly disclosed their decision to invest in Bitcoin instead of real estate. These anecdotes, while not representative of broader trends, provide some insight into the mindset of certain investors who see Bitcoin as a viable alternative for preserving wealth.

## Problems and Solutions 018 - Savings (Bitcoin Poem 083)

[You can see this poem on a background here](#)

Bitcoin Poem 083 – Written 1/17/24

Savings (Problems/Solutions 018)

Inspired by: Strike.me/learn

When fiat money is regularly debased,  
 Then people can't save in the money  
 And they must learn to be investors,  
 Investing in land, homes, stocks, art  
 Merely to keep their purchasing power  
 Which they've worked so hard to earn  
 Therefore  
 Let's allow people to simply save again  
 We can do this when we have a money  
 That is truly scarce and limited in issue.

This frees people to just work and save,  
Unless they truly want to be investors  
We have this scarce money in Bitcoin

When regular money loses its value over time due to things like inflation or government actions, it becomes hard for people to save using that money. Instead, they're pushed into investing their money in things like land, houses, stocks, or art. They do this not because they want to, but because they're trying to keep the value of their hard-earned money from disappearing.

Imagine you work really hard to earn some money, but every year that money buys you less and less because prices keep going up. It's like trying to fill a bucket with water, but there's a hole in the bottom leaking out drops every second. You have to keep adding more water to make sure it doesn't run out.

But what if we had a different kind of money, one that doesn't lose its value over time? That's where Bitcoin comes in. Bitcoin is designed to be scarce and limited in how much can be created.

This means its value doesn't erode away like regular money does.

With Bitcoin, people can go back to the simple idea of saving money without worrying about it losing its value. They can work hard, earn some Bitcoin, and then just keep it safe without feeling pressured to constantly invest it in other things just to protect its worth.

Of course, if people want to invest, they still can. But with Bitcoin, it's more of a choice rather than a necessity. So, Bitcoin gives people the freedom to focus on their work and saving, without always feeling like they have to play the investment game just to keep up.

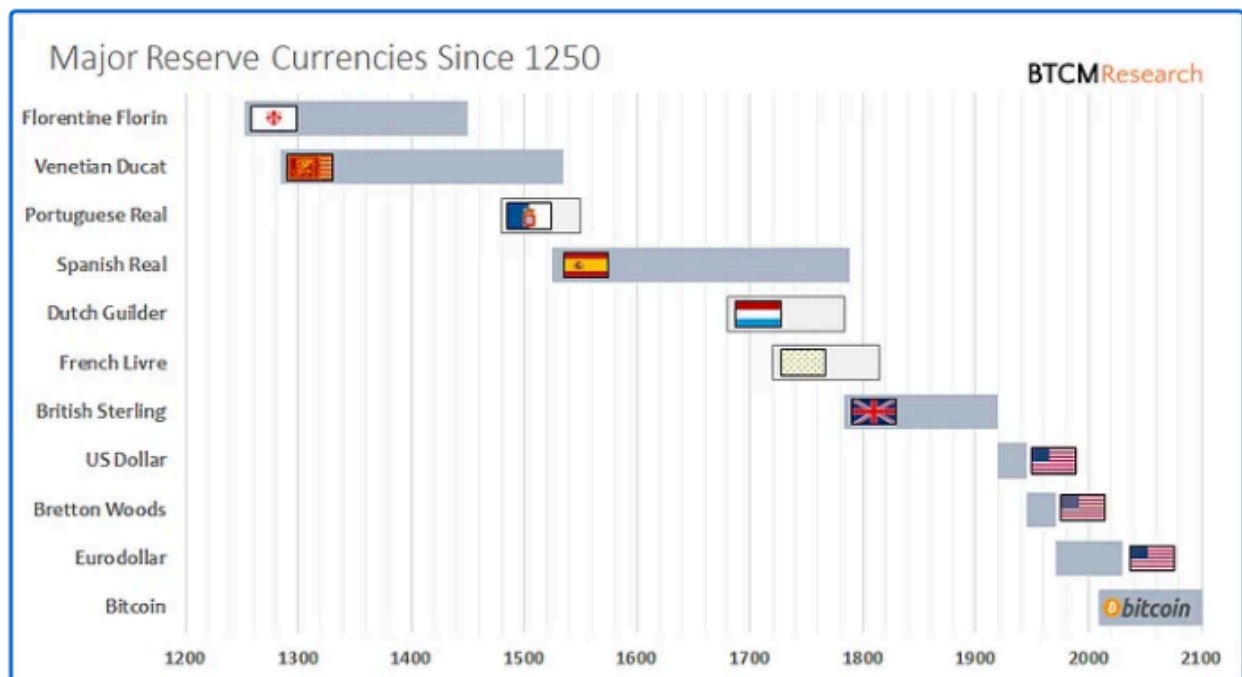
## Problems and Solutions 019 - Neutrality (Bitcoin Poem 084)

[You can see this poem on a background here](#)

Bitcoin Poem 084 – Written 1/24/24  
Neutrality (Problems/Solutions 019)  
Inspired by: Juraj Bednar

The problem with a world reserve  
Currency is that one country benefits  
More because they are in “control” of

The supply and interest rate of money.  
 This gives that country an exorbitant  
 Privilege and ability to abuse the power  
 Therefore  
 What we need is a neutral base layer of  
 Money that can serve as a reserve  
 Asset for the world, not controllable  
 By any group or country, open to all.  
 Bitcoin is this completely neutral  
 Base layer available to the world



[Image is from BTCM Research on Medium](#)

The issue with having one country's currency as the world reserve is that it gives that country a lot of power. They can control how much money is made and even set the interest rates. This means they have a big advantage, and they do misuse that power.

So, what we really need is a type of money that doesn't belong to any particular country or group. It should be open to everyone and not controlled by any single entity. This way, it can serve as a fair and neutral base for the world's economy.

Bitcoin is this completely neutral layer of money that's available to everyone around the world. It's not owned or controlled by any government or organization. Instead, it operates on a decentralized network of computers, meaning no one can manipulate it for their own benefit.

Because of this neutrality, Bitcoin has the potential to become a global reserve asset that isn't subject to the whims of any one nation or power. It could provide stability and fairness in the financial system, benefiting people from all walks of life, regardless of where they live or what country they're from.

## Problems and Solutions 020 - Big Government (Bitcoin Poem 085)

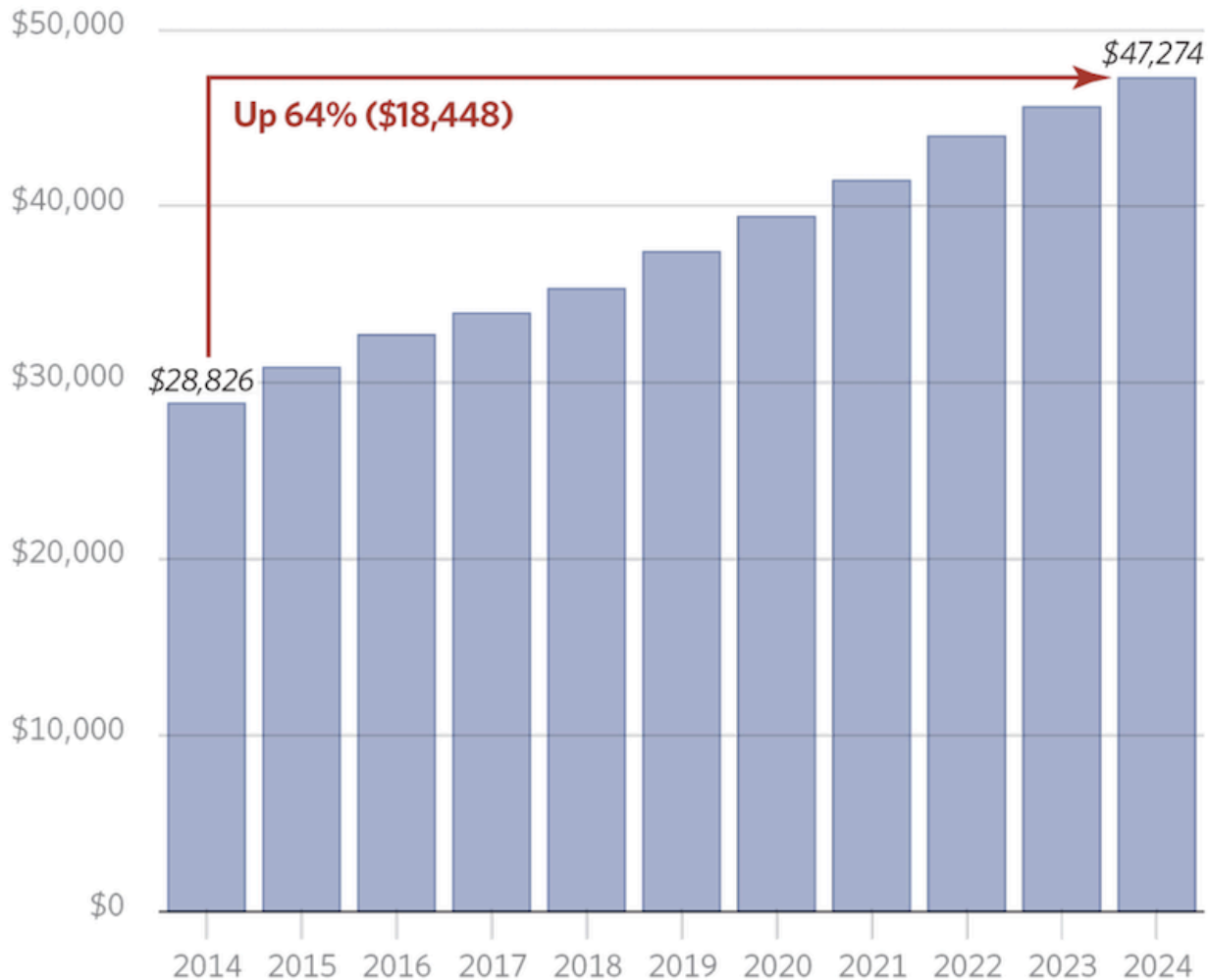
[You can see this poem on a background here](#)

Bitcoin Poem 085 – Written 2/3/24  
Big Government (Problems/Solutions 020)  
Inspired by: Looking Glass Education

Fiat money, printed freely and wildly  
Contributes directly to big government  
Because they don't need the will of the  
People (paying taxes) for large programs.  
Instead the government can just use new  
Money created by the big central banks  
Therefore  
When money is not created easily but  
Instead is only created by honest work  
And energy expenditure, this naturally  
Limits the resources the government  
Can use for their projects and ideas.  
Bitcoin is the money based on work

### CHART 3: Federal Spending per Household Projected to Rise

The federal government spent nearly \$29,000 per household in 2014, and that figure is projected to rise to more than \$47,000 per household in 10 years.



**Note:** Figures are in current dollars.

**Source:** Congressional Budget Office, "An Update to the Budget and Economic Outlook: 2014 to 2024," August 2014 (accessed September 17, 2014).

[Image is from The Heritage Foundation website](#)

Imagine you and your friends are playing a game where you can create your own currency. Let's say you're in charge of creating coins, and you decide to make a rule: for every coin you create, you have to do a specific task, like running around the block or solving a puzzle. This means you can't just make coins whenever you feel like it; you have to put in some effort each time.



Now, think about another friend who's playing the same game but with a different rule. This friend can create as many coins as they want, whenever they want, without doing any work at all. They just snap their fingers, and new coins magically appear.

In this game, your friend's rule is like fiat money, the kind of money we use every day. Governments can print as much fiat money as they want, whenever they want, without needing the consent of the people who use it. This easy printing of money can lead to big government spending because they don't rely on the hard work of the people through taxes. Instead, they can simply create more money out of thin air.

However, your rule, where you have to do something to earn each coin, is more like Bitcoin. With Bitcoin, new coins are created through a process called mining, which requires computers to solve complex mathematical problems. This process takes time, effort, and energy. Because of this, there's a limit to how many bitcoins can be created, and it's much harder for governments to spend recklessly because they can't just create more bitcoins whenever they want.

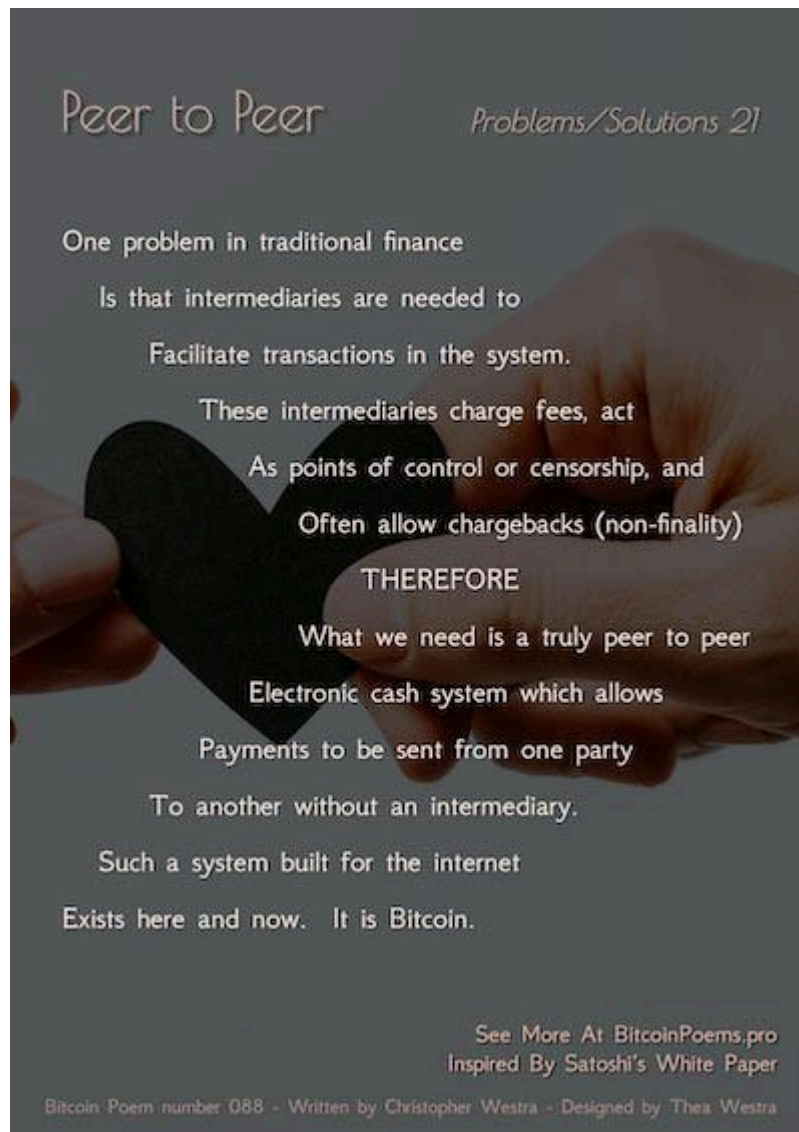
So, when money is based on work and energy expenditure, like Bitcoin, it naturally limits the resources governments can use for their projects and ideas. This could put a check on big government spending and encourage more responsible financial decisions.

In addition to the chart above, [this Heritage Foundation page](#) has other info and charts relating to the increasing size of government.

## Problems and Solutions 021 - Peer to Peer (Bitcoin Poem 088)

[You can see this poem on a background here](#)

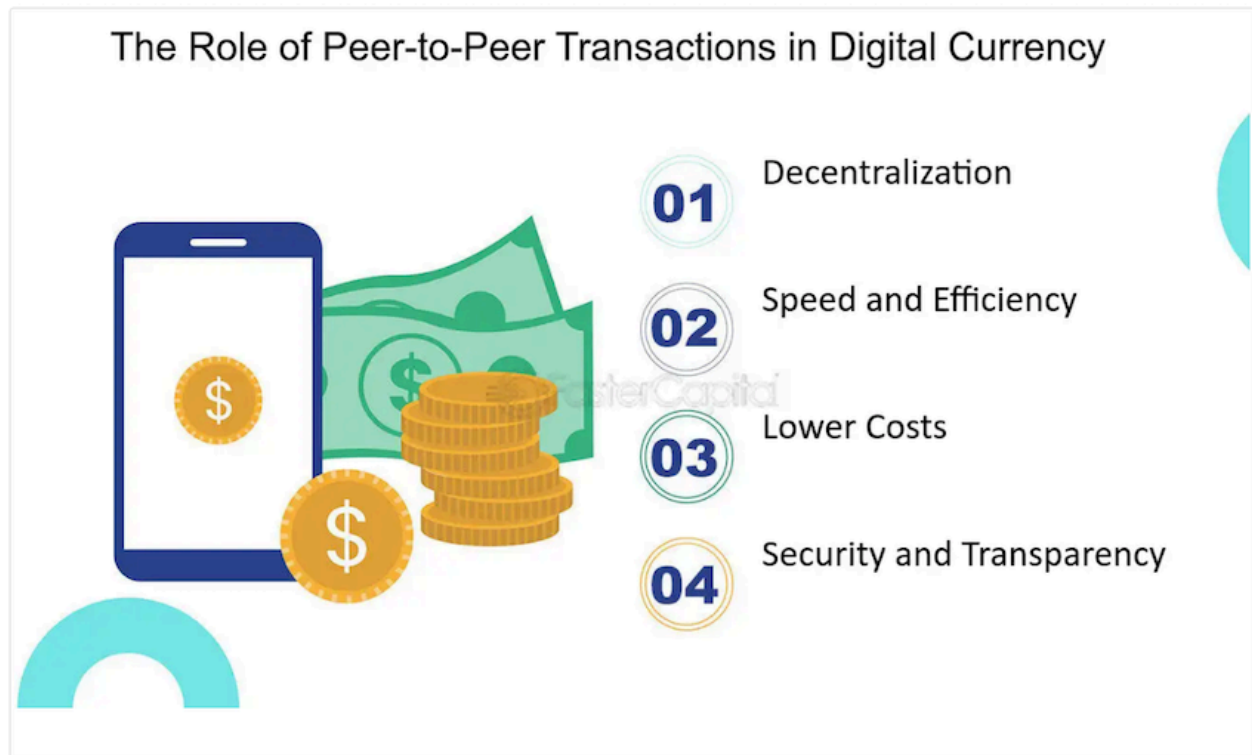
Here is a small version



Bitcoin Poem 088 – Written 2/25/24  
 Peer to Peer (Problems/Solutions 021)  
 Inspired by: Satoshi's White Paper

One problem in traditional finance  
 Is that intermediaries are needed to  
 Facilitate transactions in the system.  
 These intermediaries charge fees, act  
 As points of control or censorship, and  
 Often allow chargebacks (non-finality)  
 Therefore  
 What we need is a truly peer to peer  
 Electronic cash system which allows  
 Payments to be sent from one party  
 To another without an intermediary.

Such a system built for the internet  
Exists here and now. It is Bitcoin.



[The image above is from the Faster Capital Website](#)

I happen to believe there are more benefits than drawbacks to using peer to peer payments, but to be fair, you can read about some possible drawbacks [in this excellent article on the Faster Capital Website.](#)

Think about when you want to send money to a friend using traditional methods like banks or payment apps. There's usually a middleman involved, like a bank or a payment service, which helps make the transfer happen. But these middlemen often charge fees for their services, and they can also control or censor transactions. Plus, sometimes they allow for chargebacks, which means a transaction can be reversed even after it's been completed.

Now, imagine a system where you can send money directly from your wallet to your friend's wallet without needing any middlemen. That's what Bitcoin does. It's like handing cash directly to your friend without anyone else getting involved. This is what we mean by peer-to-peer – you're dealing directly with the other person, no intermediaries needed.

Bitcoin works on a decentralized network, which means there's no central authority or intermediary controlling the transactions. Instead, transactions are verified and recorded

by a network of computers called miners. These miners use powerful computers to solve complex mathematical problems, and in return, they're rewarded with newly created bitcoins. This process ensures the security and integrity of the Bitcoin network without the need for a central party.

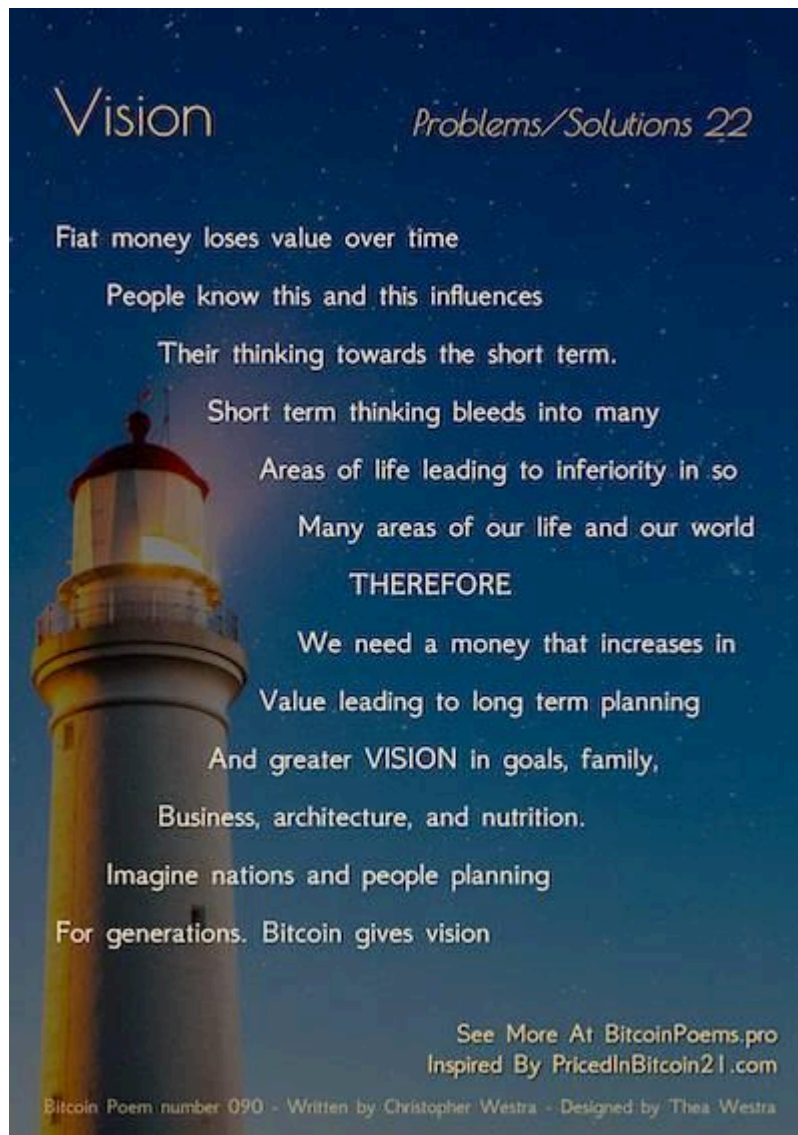
One of the big benefits of this peer-to-peer system is that it reduces fees. Since there's no middleman taking a cut of each transaction, you can send money to anyone, anywhere in the world, with minimal fees. Plus, because there's no central authority controlling the transactions, there's less risk of censorship or interference.

Once a transaction is confirmed on the Bitcoin network, it's final – there's no way for it to be reversed, which provides a level of security and trust that traditional financial systems sometimes lack. So, Bitcoin not only offers a way to transfer value directly between peers but also brings greater freedom, security, and efficiency to the financial system.

## Problems and Solutions 022 - Vision (Bitcoin Poem 090)

[You can see this poem on a background here](#)

Here is a small version.



Bitcoin Poem 090 – Written 3/10/24  
 Vision (Problems/Solutions 022)  
 Inspired by: PricedInBitcoin21.com

Fiat money loses value over time  
 People know this and this influences  
 Their thinking towards the short term.  
 Short term thinking bleeds into many  
 Areas of life leading to inferiority in so  
 Many areas of our life and our world  
 Therefore  
 We need a money that increases in  
 Value leading to long term planning  
 And greater VISION in goals, family,  
 Business, architecture, and nutrition.

Imagine nations and people planning  
For generations. Bitcoin gives vision

Imagine you have two different types of money: fiat money and Bitcoin. With fiat money, like the dollars or euros in your wallet, you know that over time, its value decreases. This means that if you save up a certain amount of fiat money today, it might not buy you as much in the future because prices tend to go up. So, when people have fiat money, they often think more about spending it quickly, before it loses even more value.

This short-term thinking can affect many aspects of life, from how we plan our goals to how we run our businesses.

On the other hand, Bitcoin is different. It's designed to be hard money, which means its value tends to increase over time. This encourages people to hold onto their bitcoins for the long term, rather than spending them right away.

When you know that the money you have today will be worth even more tomorrow, it changes your perspective. You start to think more about the future and plan for the long term. This can lead to greater vision and ambition in many areas of life, like setting goals for your family, building a business, designing architecture, or even choosing what to eat for better nutrition.

Imagine if nations and people could plan not just for years, but for generations ahead. Bitcoin gives us this vision because it's a form of money that encourages long-term thinking and planning.

With Bitcoin, we have the opportunity to build a better future for ourselves and future generations by making decisions that benefit us in the long run. So, by embracing Bitcoin as hard money, we can foster a culture of long-term planning and greater vision in all aspects of our lives and our world.

## Template

### Problems and Solutions xxx - ProblemName (Bitcoin Poem xxx)

You can see this poem on a background here

Paste poem here, including header

Pic or image for interest, about the problem

More about the poem here

## Chapter x Review Questions

Question 1: contenthere

Question 2: contenthere

## Practical Exercise for xxx

ContentHere

## Answers to Chapter x Review Questions

Question 1 - Correct answer:

Question 2 - Correct answer:

# Chapter Template

## Chapter x: Title Here

Quote here

MainChapterContentHere

### Chapter x Review Questions

Question 1: contenthere

Question 2: contenthere

### Practical Exercise for xxx

ContentHere

### Answers to Chapter x Review Questions

Question 1 - Correct answer:

Question 2 - Correct answer: