



SOVREIGN

## THE BUSINESS CASE FOR BITCOIN

WHY BITCOIN BELONGS ON YOUR BALANCE SHEET

# Foreword

*“This thing is the single most important thing of our lifetime and so it's a worthwhile pursuit to explain to the world what bitcoin is.”*

– Michael Saylor, Executive Chairman of MicroStrategy

Bitcoin is more than a form of money, an investment, or a technology. It's a paradigm shift that fundamentally changes civilization, akin to the invention of electricity or the written word. It's a Gutenberg moment of unprecedented scale.

Bitcoin is the world's first decentralized, incorruptible, immutable, and universally accessible digital monetary system. It stands as the first instance of successfully *engineered money*—what some have called a “triple-point asset.”

Some people have compared it to the invention of the number zero, or even time itself. It's a revolution in energy and renewables, and represents a lifeline for billions of oppressed people worldwide.

For businesses, bitcoin suggests a financial and operational renaissance taking place; a movement that redefines corporate treasury strategy, promotes forward-thinking innovation, and uplifts small businesses facing the pressures of inflation.

It represents the solution for over 350,000,000 companies worldwide. After changing the lives of countless individuals, bitcoin is naturally evolving to become an essential integration for every organization, business, institution, and sovereign wealth fund on the planet.

Governments, presidents, and the world's largest asset managers have already embraced bitcoin, shifting the Overton window to a new reality where dismissing bitcoin is no longer justifiable. Fiduciaries have a responsibility to act in the best interests of their stakeholders, which now includes considering bitcoin as a legitimate treasury asset.

It's my hope that this book can serve as a guiding light, inspiring leaders across the world to join this peaceful revolution.

– Daniel Frank, Founder of Sovreign

# I – Your business faces a problem: money

*“Money is the most important good in any developed economy because it acts as the foundation for all trade and savings. Gold, the ancient and venerable precious metal, had served this role for millennia, but its physicality was an Achilles’ heel that made it vulnerable to centralization, confiscation, and state attack. Gold’s status as global money was eventually repealed during the twentieth century as the state came to dominate the issuance and management of money. With a desire to facilitate anonymous payments and to overcome the vulnerabilities of gold, cypherpunks hoped to develop a digital currency that would be immune to the coercive power of the state.” – Vijay Boyapati, 2018*

An obvious yet understated fact about money is that it concerns everyone. While most disregard money subjects by lack of personal interest or genuine fatigue, the notion of money within society is quintessential to living life in a non-self-sufficient way. Money is the lifeblood of civilization.

The world has progressed from bartering to various forms of money, including sea shells, tobacco, and stones. These collectibles facilitated trade between tribes and across generations, though they had low velocity and were primarily stores of value.

As societies developed, they transitioned to using precious metals like gold and silver, which had superior monetary properties. Eventually, the world coalesced around gold as the standard. This was followed by the use of paper money issued by banks and governments (such as dollars, euros, and pounds).

Over time, we discovered that effective money needs certain attributes:

- **Fungible:** Each unit is identical to any other unit
- **Durable:** Resists damage over time
- **Portable:** Easily transportable
- **Scarce:** Low supply growth
- **Divisible:** Can be broken down into smaller units or combined into larger ones

- **Salable:** Widely recognized and accepted

These attributes ensure that money can fulfill its primary functions:

- **Medium of Exchange (MoE):** Facilitates the transfer of value
- **Store of Value (SoV):** Preserves or enhances purchasing power
- **Unit of Account (UoA):** Provides a standard measure for valuing goods and services and planning for the future

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

Until roughly sixty years ago, market forces generally decided which form of money reigned supreme, based on which medium best satisfied these characteristics. For thousands of years, gold was the dominant choice

because it was scarce, durable, and recognizable. However, it still had drawbacks, particularly with transportation and verification.

Because it had to be stored and transported as a tangible metal, it became necessary to centralize it in vaults or banks for practical use. This centralization paved the way for governments to eventually gain control over its custody and circulation. Over time, money ceased to be chosen organically by the free market based on its monetary properties, and instead, it evolved into what we now call fiat currency—a form of money produced at will by government decree.

Once the state assumed control of the money supply, the crucial attribute of scarcity was lost. Fiat currency, unshackled from physical limits, became the least scarce form of money that has ever existed. As a result, whoever manages this supply—the nation-state—gains a disproportionate advantage, often benefiting politically connected interests at the expense of savers and wage earners. This has long been understood as the [Cantillon Effect](#).

*"Money is a tool for trading human time. Central banks, the modern-era masters of money, wield this tool as a weapon to steal time and *inflict wealth inequality*. History shows us that the corruption of monetary systems leads to moral decay, social collapse, and slavery. As the temptation to manipulate money has always proven to be too strong for mankind to resist, the only antidote for this poison is an incorruptible money—bitcoin."* – Robert Breedlove, [Masters and Slaves of Money](#)

## Inflation & debasement

At the core of the issue with money lies the inevitability that when you create more of it, the existing supply becomes less valuable. Today, money can be created in infinite amounts for free, infinitely debasing the currency's purchasing power and our economic lifeblood through inflation.

This shift set the stage for many of the societal issues we see today, erroneously blamed on symptoms and not the root cause of the problem.

A business's failure to recognize the difference between "hard money" and "soft money" results in a slow drowning of resources that brings the company to its knees, silently, meticulously, and to the bewilderment of its owner.

The eye-opening reality is that most businesses are completely neglecting the dynamic that soft money plays in stunting business growth.

Thanks to human ingenuity, thousands of years of innovation, and technological progress, bitcoin now emerges as the preeminent choice for the role of money, given its unparalleled attributes as a monetary instrument far superior to debt-based alternatives.

*"The unprecedented worldwide growth in money supply following the COVID-19 pandemic led to widespread inflation, eroding the purchasing power of established fiat currencies. Bitcoin's role as a potential hedge against inflation has increasingly become a talking point central to investment decision-making. As previously alluded to, the cornerstone of this idea lies in its limited supply and decentralized nature. Unlike fiat, which can be printed by governments and central banks, bitcoin has a fixed supply, with supply growth decreasing by 50% roughly every 4 years with the halving events. Bitcoin is not subject to the same inflationary pressures caused by fiat money supply growth, making it an attractive option for investors concerned about the impact of inflation on their portfolios and their subsequent purchasing power."*

– VanEck, The Investment Case for Bitcoin

## Your business needs hard money

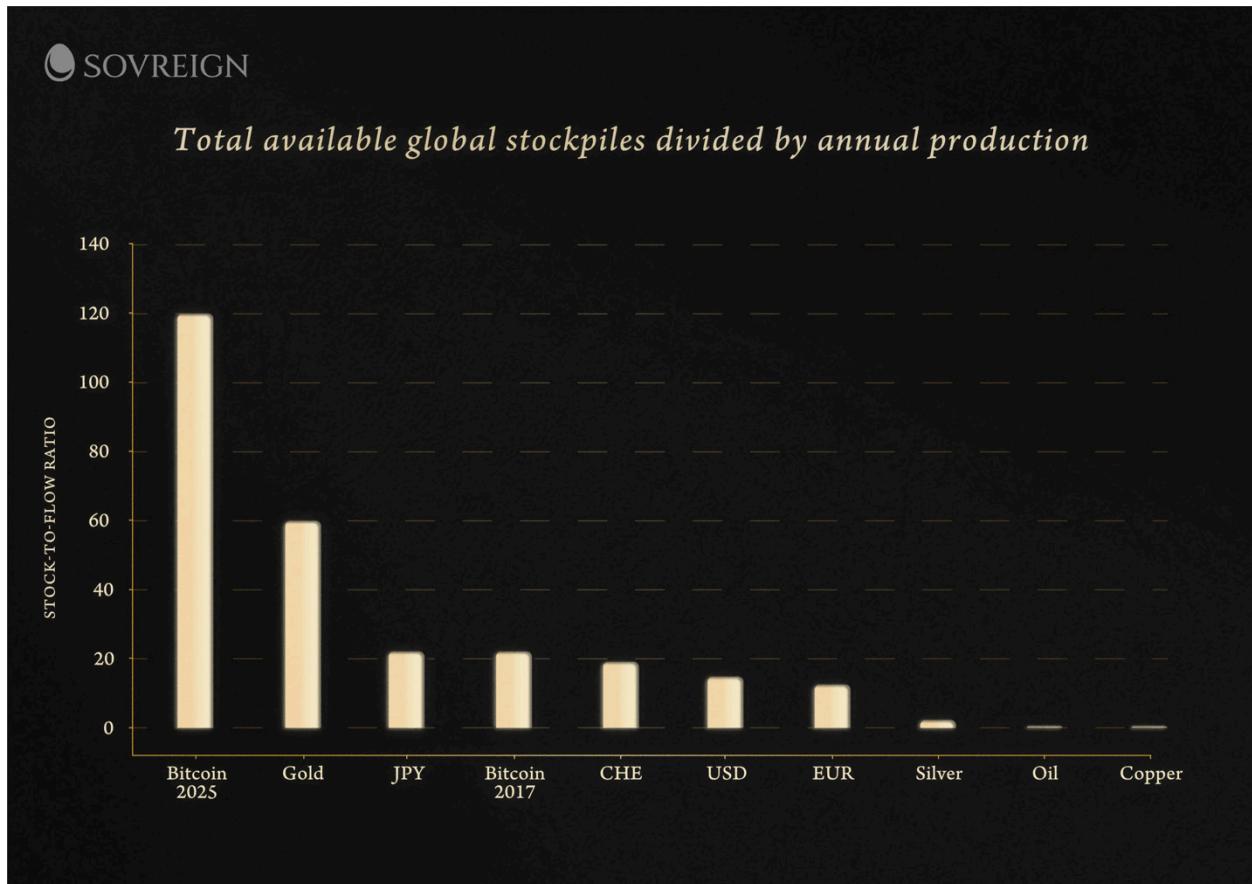
The most important function of money was, is, and always will be to store value. This is only logical; if the money does not keep its value, all its other functions are irrelevant. Primitive forms of money like salt, tobacco, seashells, silver, and paper currency share one common flaw, namely that they can be produced easily; they are “soft” forms of money.

Society cannot function without money, and how hard the money is determines how well it can function. If money is hard only for one group of people and soft for another, that group of people will be tremendously advantaged compared to the other.

The main conceptual difference between hard money and soft money is how difficult it is to produce. What backs hard money is a real commodity (i.e., gold) that takes real effort to produce. Behind soft money (i.e., fiat)

there is void. A central bank can make a few keystrokes and have a trillion new dollars ready to enter circulation at a moment's notice.

We can understand money's hardness through understanding two distinct quantities related to the supply of a good: (1) the stock, which is its existing supply, consisting of everything that has been produced in the past, minus everything that has been consumed or destroyed; and (2) the flow, which is the extra production that will be made in the next time period.

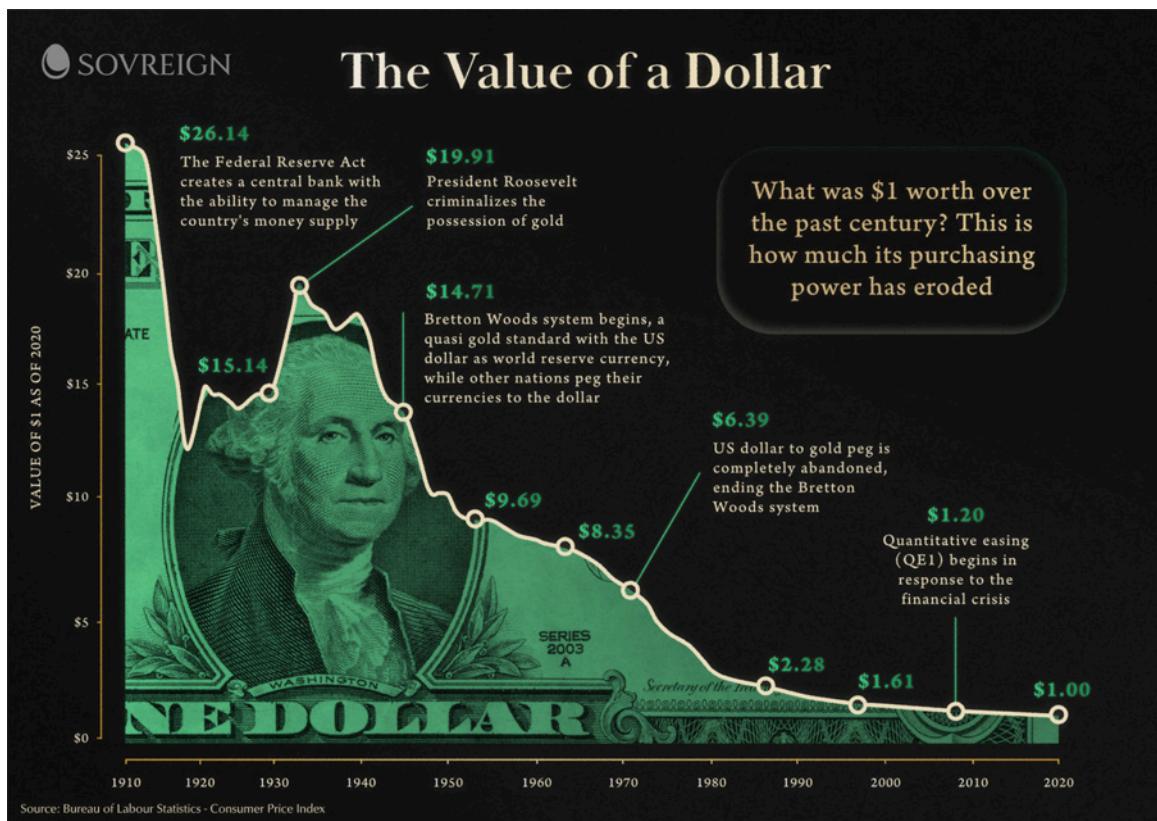


*"If people chose to store their wealth in an easy money, with a low stock-to-flow ratio, it would be trivial for the producers of this good to create very large quantities of it that depress the price, devaluing the good, expropriating the wealth of the savers, and destroying the good's salability across time." – Saifedean Ammous, 2018*

The ratio between the stock and flow is a reliable indicator of a good's hardness as money, and how well it is suited to playing a monetary role. A good that has a low stock-to-flow ratio is one whose existing supply can be increased drastically if people start using it as a store of value. Such a good would be unlikely to maintain value if chosen as a store of value.

The higher the stock-to-flow ratio, the more likely that good is to maintain its value over time. If people choose a good with a high stock-to-flow ratio as a store of value, high demand does little to impact the quantity being produced. Because the flow is small compared to the existing supply, even a large increase in new production is unlikely to depress the price significantly.

## Your business's greatest threat: inflation



*"I do not think it is an exaggeration to say history is largely a history of inflation, usually inflations engineered by governments for the gain of governments."* – Friedrich Hayek, father of Austrian Economics

If the main reason for being in business is to create value, and that value is stored in soft, low stock-to-flow money like cash, then the very lifeblood of the company is evaporating over time. Holding cash reserves in a company treasury—beyond the cash needed for short-term operational expenses—is

like lighting your reserves on fire. And with inflation, that fire is growing hotter and spreading faster with each passing year.

Inflation represents the increase in prices resulting from monetary expansion that outpaces growth, leading to a decline in the currency's purchasing power. If you grow your savings by 5% and inflation is 7%, your net purchasing power decreases by 2%.

Historically, inflation has always been inextricably linked to money. The generally accepted school of thought that economists and governments have propagated is that inflation helps the economy as it eases credit payback over time and allows borrowers to repay faster. In times of crises, cash injection serves as a backstop for preventing greater economic fallout. But the sobering reality is setting in as we keep raising the debt "ceiling" higher and higher: inflationary interference brings short-term solutions while creating long-term problems.

Financial authorities historically reached a consensus on maintaining a target inflation rate of 2%, mimicking the average issuance rate of new gold, the historic hard asset benchmark. While 2% may seem relatively minimal, this economic policy effectively erodes approximately **one-third of a currency's purchasing power** over two decades. Should this rate increase to three percent, the erosion would accelerate, **diminishing nearly half of the currency's value** within the same timeframe.

Now consider what's transpired over the last four years. During the 2020, coronavirus pandemic, central banks inflated the global money supply by 20-40%, depending on where you get your data from. Looking at the historical data on the expansion of the money supply, the true inflation rate is actually closer to 7-8% annually. If you've been running a business in the last four years, you've probably felt the pressure on costs get even worse.

The long-term consequences of such reckless monetary expansion are still to be felt.

Reality isn't adding up

*“Technology is profoundly deflationary. With abundance comes price deflation. This is simple supply-and-demand economics: the more abundant something is, the more likely it is that its price falls. We’re now entering an age of deflation unlike any the world has ever seen.”*

– Jeff Booth

Think of the first computer in the world, which needed a soccer-field-sized facility and cost hundreds of millions of dollars to produce. Today, nearly everyone has a computer in their pocket, and most households have at least moderate access to a computer, all produced at a mere fraction of the cost.

While computing systems, televisions, and other inventions experience profound technological deflation, the cost of groceries, gasoline, education, healthcare—the essential components of our everyday lives—keep on rising. Your business’s expenses don’t seem to enjoy the same deflationary effect that modern-day technology benefits from.



An unlimited money supply results in more and more dollars chasing the same amount of goods, effectively eroding the purchasing power of each dollar in the process.

If today’s money was grounded in reality, technological innovation would draw down the cost of living as we streamline production processes. But the

paradox that inflation creates is an ever-rising cost of living, despite the innovation.

Even though your business may offer great value to the world, the dilution of our money supply siphons away that added value. This systematic devaluation imposes mounting pressure on businesses through escalating material and operational expenses. Consequently, companies transfer these financial strains onto the workforce, compelling employees to shoulder the concealed burden of inflation.

What results is a skewed system of incentives.

Companies now need to prioritize shareholder returns over the world's overall wealth, health, and well-being. It's unsurprising, then, that many struggle to maintain positive workplace environments.

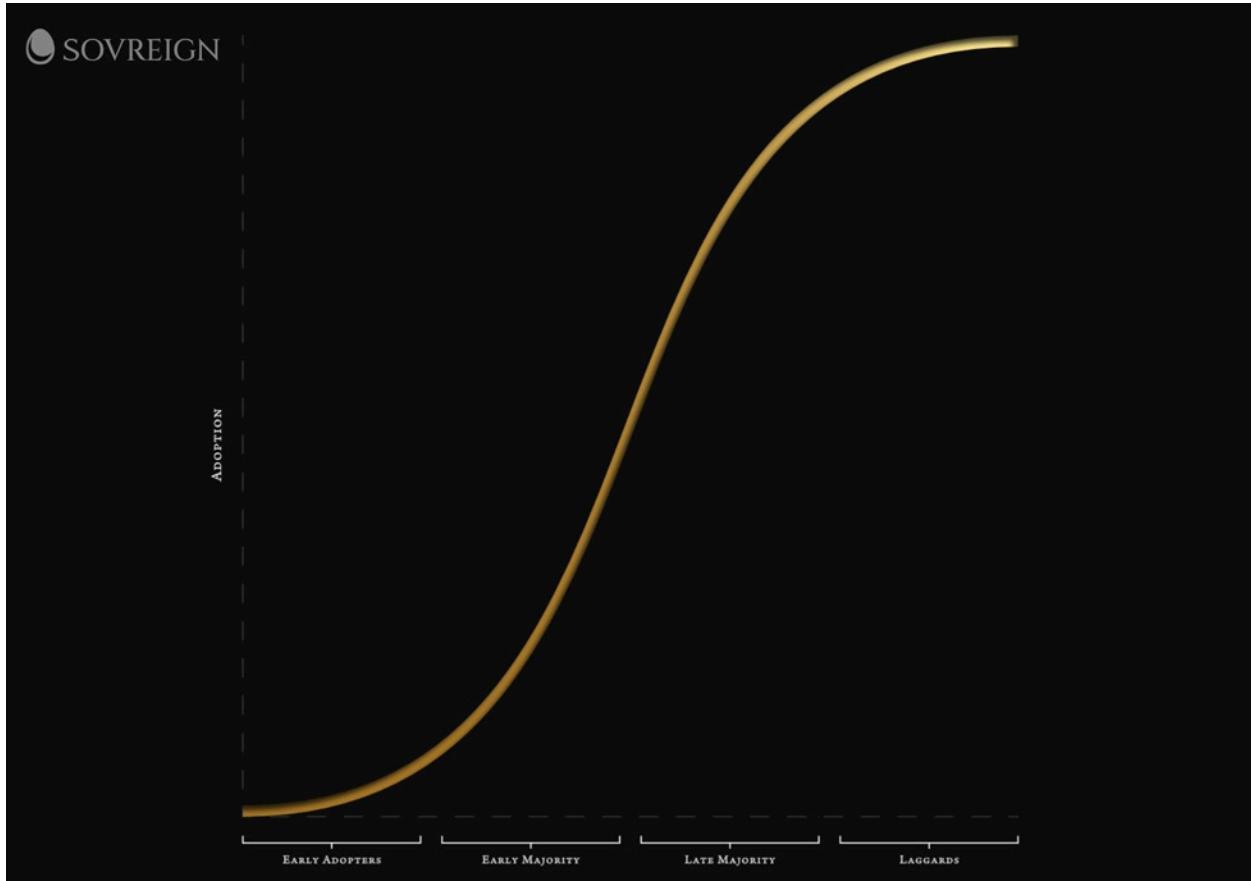
Such a long-felt, systemic plague to operational efficiency surely calls for a solution.

## The paradigm is shifting

A paradigm shift represents a fundamental transformation in our understanding, compelling us to reconcile novel discoveries that challenge established wisdom. While some revelations emerge gradually, others manifest as profound breakthroughs that rapidly revolutionize human knowledge.

Consider the evolution of transportation. Humanity's journey from bipedal locomotion to the domestication of horses, the revolutionary invention of the wheel, and the subsequent development of motorized vehicles, railways, and ultimately aerospace technology has progressively compressed both time and space. The modern world enjoys unprecedented human interaction, revolutionized commerce through efficient distribution of perishable goods, and enabled exploration of previously inaccessible frontiers.

Technological adoption usually follows an S-curve pattern, characterized by three distinct phases: initial sluggish uptake, explosive middle-stage growth, and eventual deceleration as market adoption approaches its ceiling.



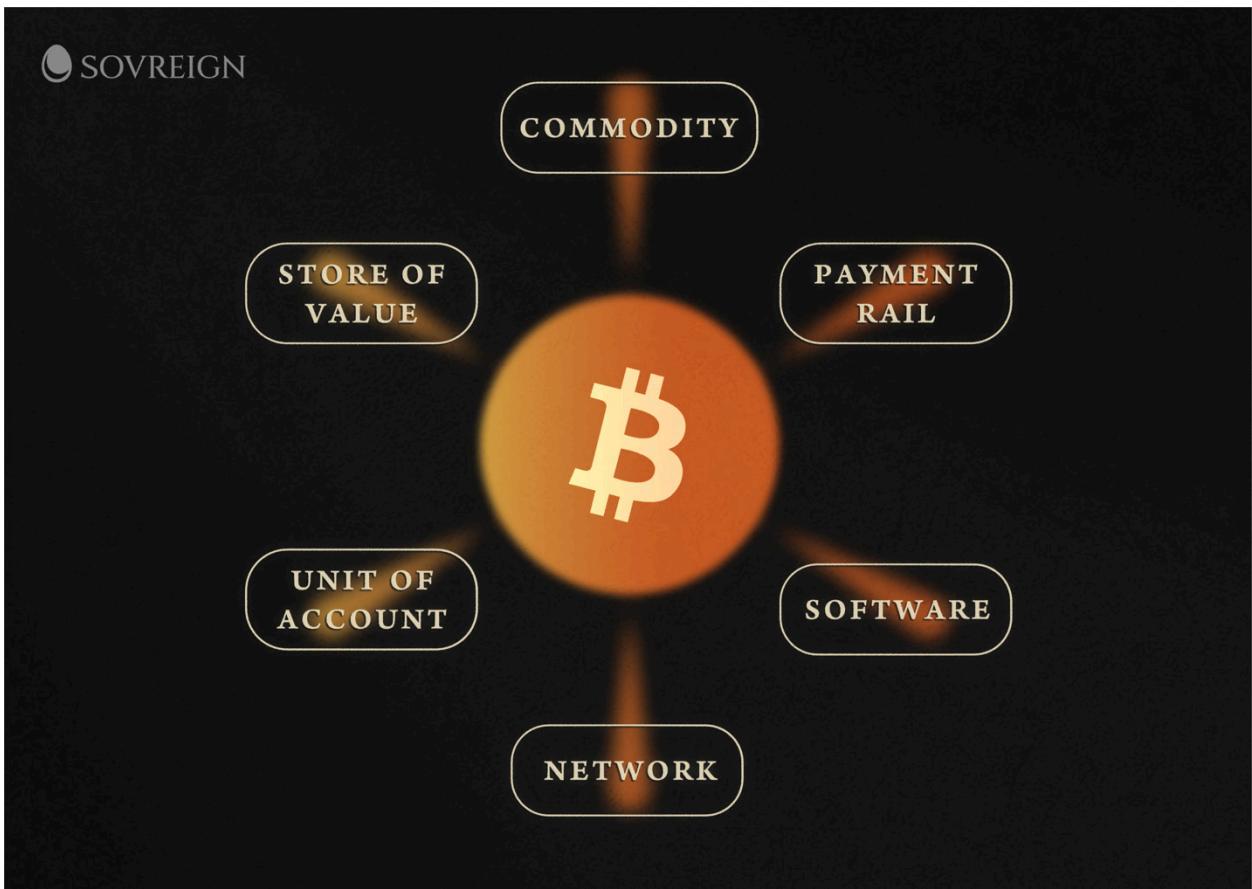
During the nascent phase, early adopters constitute a minimal user base, while peak saturation typically encompasses between half and nearly all potential users.

Today, innovation diffusion occurs at an unprecedented pace. Telephone communication systems demonstrate this phenomenon clearly: While the introduction of conventional telephones took nearly a century, mobile communications achieved widespread implementation within two decades.

As a business owner, the wake of rapid inflation may seem insurmountable, but the critical realization to make right now is that modern-day business stands on the precipice of a once-in-humanity paradigm shift: the re-engineering of our monetary system.

## II – Why bitcoin is the solution

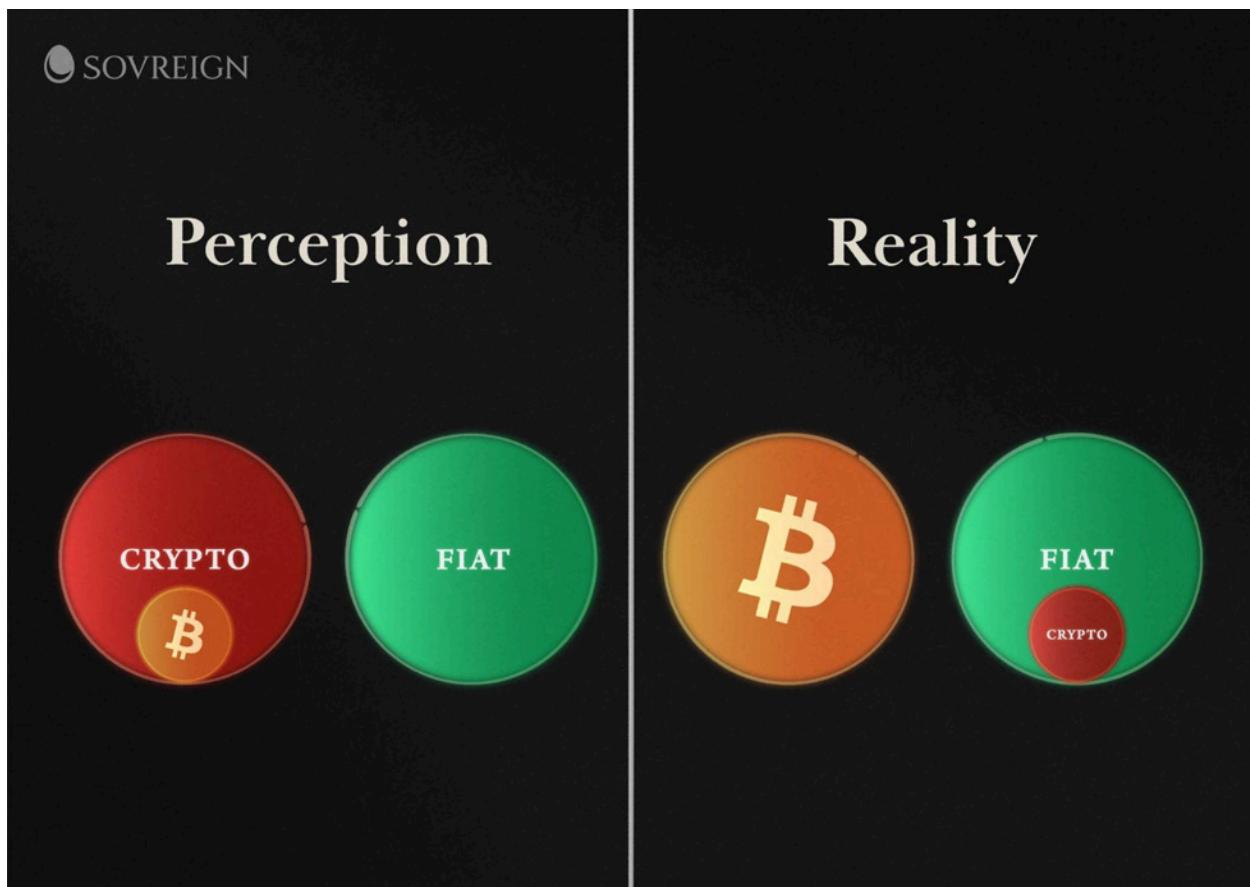
*"Its [bitcoin's] technological characteristics were designed to create superior monetary properties for the digital world. Through time, its network has grown large enough that it is now the scarcest, most durable, most portable, most divisible, monetary asset in the world. Further, it is the most decentralized."* – Eric Yakes



The revelation that bitcoin presents to the world is that we've never had absolutely scarce, truly hard money before bitcoin.

We've never experienced an asset whose supply was intentionally hard-coded to be fixed for both holders and producers alike. We've never had money that could transfer infinite value across time and space in a fraction of a second. And we've never had money that entirely sidesteps manipulation through debasement or confiscation.

For the uninitiated, bitcoin may seem like nothing more than “tulip mania,” wishful thinking, naive speculation, or a futile use of people’s time and energy. They rightfully identify the general crypto space as a haven for scammers, thieves, rug pulls, and fraudulence, but make the critical mistake of grouping bitcoin together with that realm.



*“Bitcoin is a discovery on par with that of the wheel, the number zero or the ability to start a fire, mistaken for a gimmick by the masses.”*

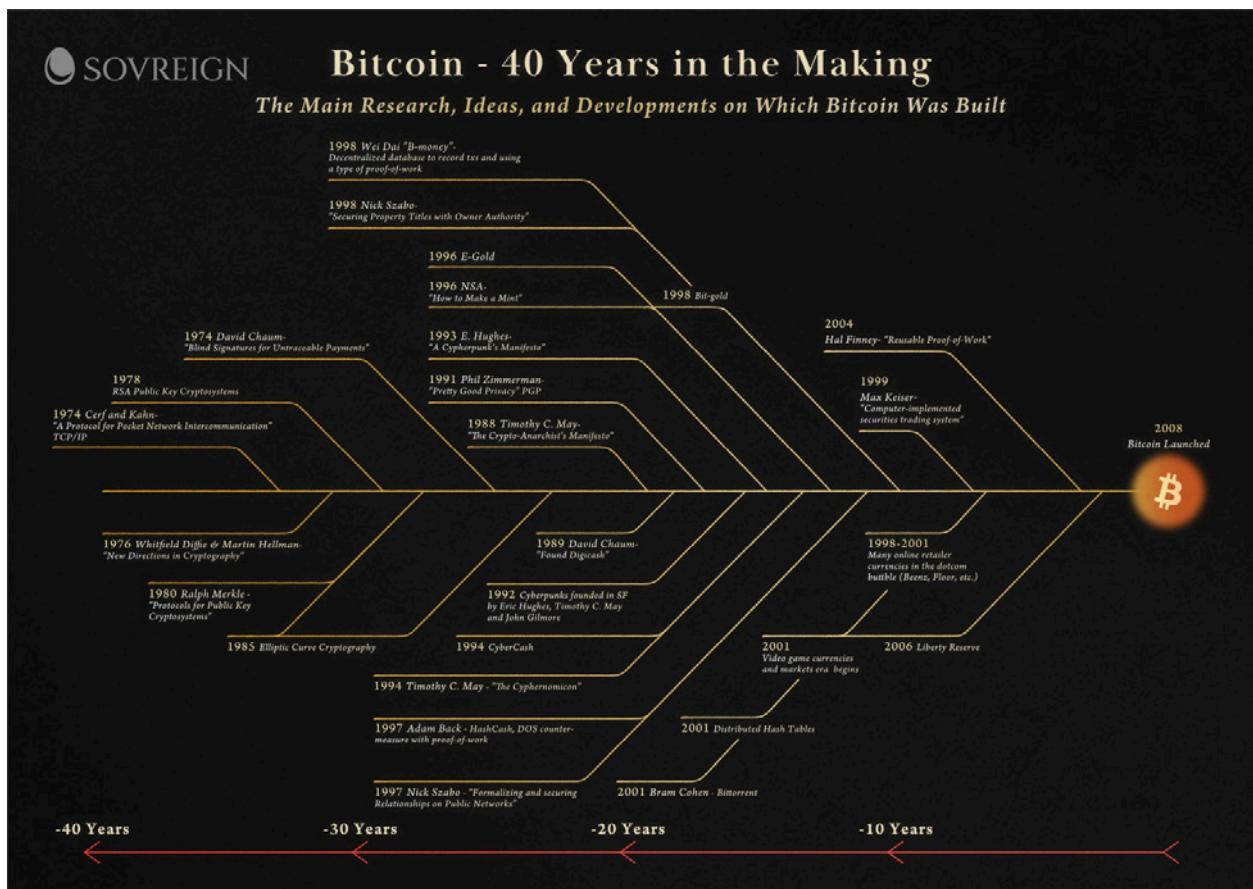
– Knut Svanholm

Beyond the crypto noise is a new paradigm that bitcoin represents—a seismic monetary shift happening on a global scale. Such a grand movement is attractive to conniving opportunists who want to ride bitcoin’s coattails and make easy money off the backs of innocent but ill-informed people.

The reality is that bitcoin resulted from a rich playground of ideas coming together to address the inflationary virus plaguing business growth worldwide.

*"The idea of online cash was among the first ideas emerging on top of the internet since the dawn of this new telecommunication protocol's first iteration. The idea being, allowing citizens of the world to send, receive, and store value in a digital way. In fact, hundreds if not thousands of cryptographers have tried inventing digital money. The path to bitcoin is littered with the corpses of failed attempts. I've compiled a list of about a hundred cryptographic payment systems, both e-cash and credit card-based technologies, that are notable in some way. Some are academic proposals that have been well cited while others are actual systems that were deployed and tested."*

– Arvind Narayanan, et. al. 2016



What is bitcoin?

*“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. In other words, bitcoin automates the functions of a modern central bank and makes them predictable and virtually immutable by programming them into code decentralized among thousands of network members, none of whom can alter the code without the consent of the rest.”*

– Saifedean Ammous, 2018

At its roots, bitcoin is three things: first, a decentralized peer-to-peer network (the bitcoin protocol). Second, it is a public transaction ledger (the blockchain) recording every transaction that ever takes place in the network. Third, it is a set of rules for independent transaction validation and currency issuance (consensus rules).

These three components of bitcoin work in unison, protected and upheld by a technological breakthrough called “proof of work,” an algorithm for reaching global decentralized consensus.

What sets bitcoin apart is its perfectly scarce supply, paired with an impenetrable security system that ensures its users can trust bitcoin’s integrity.

Paradoxically, since bitcoin can store value, transfer value, and settle value natively within the protocol, its network operates entirely **trustlessly**. You don’t need to rely on outside third parties to intermediate and facilitate transactions, thus saving people time, money, and energy that otherwise gets wasted in the old system.

As a business, bitcoin is much more than simply another treasury reserve asset, a unique differentiator, or an opportunity to expand your company’s scope. These are all true benefits of bitcoin for business that we’ll discuss, but what’s most important to understand is that bitcoin is **necessary** for business in the 21st century.

In 1886, Karl Benz introduced what’s widely considered to be the first automobile powered by an internal combustion engine. Further towards the close of the 19th century, for every one automobile on the streets, there were still about 5,250 horses dragging buggies to get people from A to B.

While the US still had more than 4,600 carriage companies operating as late as 1914, 11 years later that number shrank to only 150. By 1929, less than 90 remained.

Automobiles swiftly and decisively overtook horse-drawn carriages for transportation. **The transition was gradual, then sudden.**

It's not that automobiles were better for the transportation business—they were imperative to any serious business owner wanting to remain competitive.

*"Bitcoin is like early electricity. Raw, dangerous, seems very volatile and hard to use. With time it'll start to feel safer, easier, and normal. Like electricity, it will inspire and power new unimaginable industries. And one day we'll wonder: how did we live without it?"*

– Obi-Wan Kenobit

Today, new technology adoption occurs at an increasingly fast pace, and it's become paradoxically harder to notice the changes. Just 20 years ago, social media was relatively non-existent. Now it's an essential marketing component for any business competing within the online landscape.

Bitcoin stands at the precipice of unprecedented economic evolution. But unlike the transportation industry in isolation, bitcoin is an innovation that affects every business on the planet. In every industry that money touches, bitcoin plays a role in reshaping it.

## Bitcoin's returns & comparison to other assets

*"You either have to work 10 times harder than a bitcoin holder, or you just hold bitcoin."* – Jack Mallers, Strike CEO

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD 2024	Average
Bitcoin 5,866.29%	U.S. Equities 13.69%	Bitcoin 35.10%	Bitcoin 124.07%	Bitcoin 1,622.86%	Treasuries 0.86%	Bitcoin 86.38%	Bitcoin 293.38%	Bitcoin 67.23%	Commodity 16.09%	Bitcoin 156.62%	Bitcoin 49.08%	Bitcoin 675.26%
U.S. Equities 32.39%	Real Estate 13.34%	U.S. Equities 1.38%	EM Equity 12.06%	U.S. Equities 21.83%	U.S. Bonds 0.01%	U.S. Equities 31.49%	Gold 24.42%	U.S. Equities 28.71%	Gold -0.13%	U.S. Equities 26.29%	Gold 28.36%	U.S. Equities 15.48%
EM Equity 3.59%	U.S. Bonds 5.97%	Treasuries 0.84%	U.S. Equities 11.96%	Real Estate 18.73%	Gold -2.14%	Real Estate 25.92%	U.S. Equities 18.40%	Commodity 27.11%	EM Equity -1.60%	Gold 13.45%	U.S. Equities 22.08%	EM Equity 6.46%
Real Estate 3.51%	Treasuries 5.05%	U.S. Bonds 0.55%	Commodity 11.77%	EM Equity 14.90%	U.S. Equities -4.38%	Gold 18.87%	EM Equity 14.69%	Real Estate 22.06%	Treasuries -12.46%	EM Equity 12.60%	EM Equity 15.68%	Real Estate 6.13%
U.S. Bonds -2.02%	EM Equity -1.10%	Real Estate -0.39%	Gold 8.63%	Gold 13.68%	Real Estate -6.77%	EM Equity 13.31%	Treasuries 8.00%	EM Equity 4.42%	U.S. Bonds -13.01%	Real Estate 9.32%	Real Estate 12.34%	Gold 5.12%
Treasuries -2.75%	Gold -1.51%	EM Equity -2.62%	Real Estate 5.32%	U.S. Bonds 3.54%	EM Equity -8.45%	U.S. Bonds 8.72%	U.S. Bonds 7.51%	U.S. Bonds -1.54%	U.S. Equities -18.11%	U.S. Bonds 5.53%	Commodity 5.86%	U.S. Bonds 1.86%
Commodity -9.52%	Commodity -17.01%	Gold -10.46%	U.S. Bonds 2.65%	Treasuries 2.31%	Commodity -11.25%	Commodity 7.69%	Commodity -3.12%	Treasuries -2.32%	Real Estate -24.42%	Treasuries 4.05%	U.S. Bonds 4.45%	Treasuries 1.28%
Gold -28.26%	Bitcoin -60.51%	Commodity -24.66%	Treasuries 1.04%	Commodity 1.70%	Bitcoin -72.31%	Treasuries 6.86%	Real Estate -5.42%	Gold -3.51%	Bitcoin -65.05%	Commodity -7.91%	Treasuries 3.84%	Commodity -0.27%

Over the past decade, bitcoin has demonstrated unprecedented dominance in performance across all major asset categories, establishing itself as the premier benchmark of value among both digital assets and traditional assets.

Investors who recognize this trend fundamentally shift their financial paradigm. Rather than measuring profit in terms of fiat, they measure success through the expansion of their bitcoin holdings. Every investment decision and expenditure is carefully evaluated against the opportunity cost of acquiring additional bitcoin.

Given bitcoin's impressive track record of superior performance to all other asset classes in nine out of the previous twelve years—by several orders of magnitude—the fact that it's replacing treasury bonds as the de facto "risk-free rate" benchmark should come as no surprise.

This paradigm shift is particularly evident among those well-versed in monetary history who recognize and appreciate bitcoin's mathematically enforced, immutable scarcity as a cornerstone of its enduring value proposition. Just as treasury bonds serve as the bedrock of traditional finance, bitcoin is the new essential benchmark against which all other investments are measured.

If taking on additional risk isn't generating more bitcoin, why is that risk worth taking? MicroStrategy exemplifies this shift of the corporate sphere through their uncommonly innovative performance metric: BTC Yield. According to their September 20th 8-K form, "The Company uses BTC Yield as a KPI to help assess the performance of its strategy of acquiring bitcoin in a manner the Company believes is accretive to shareholders."

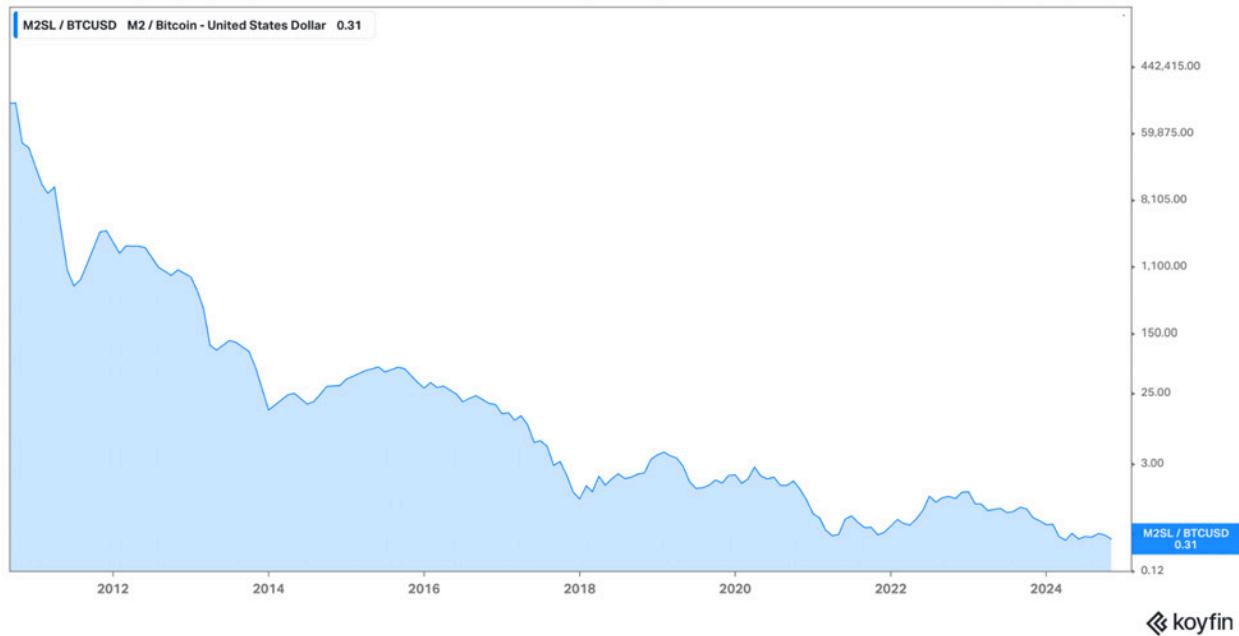
Bitcoin presents a unique value proposition by eliminating the numerous vulnerabilities inherent to the legacy financial system. It's free from counterparty exposure, removes dilution concerns, and circumvents the myriad of systemic hazards that plague traditional monetary instruments.



## Fiat money

Holding wealth in an economy with a 2% inflation target is problematic, and especially problematic when 7% is the true average in the US, as previously mentioned. To maintain this target, any increase in production capacity requires an equivalent level of monetary debasement. Fiat currency, devalued through this debasement, fails as a store of value when compared to bitcoin.

Assuming equivalent demand, anything devalues against a perfectly scarce asset. The price of bitcoin itself reflects fiat depreciation in terms of bitcoin.



*M2 money supply losing value against bitcoin.*

## Real estate

The real estate market purports the illusion of stability and consistent financial gains. However, this façade can be deceptive, particularly when considering the insidious force of monetary devaluation.

Real estate's steady appreciation masks a more complex economic reality, where the erosion of purchasing power silently chips away at perceived wealth accumulation. This dichotomy between the tangible nature of property investments and the intangible, yet potent, impact of currency depreciation demands careful scrutiny and should challenge the conventional wisdom surrounding real estate as a foolproof investment strategy.

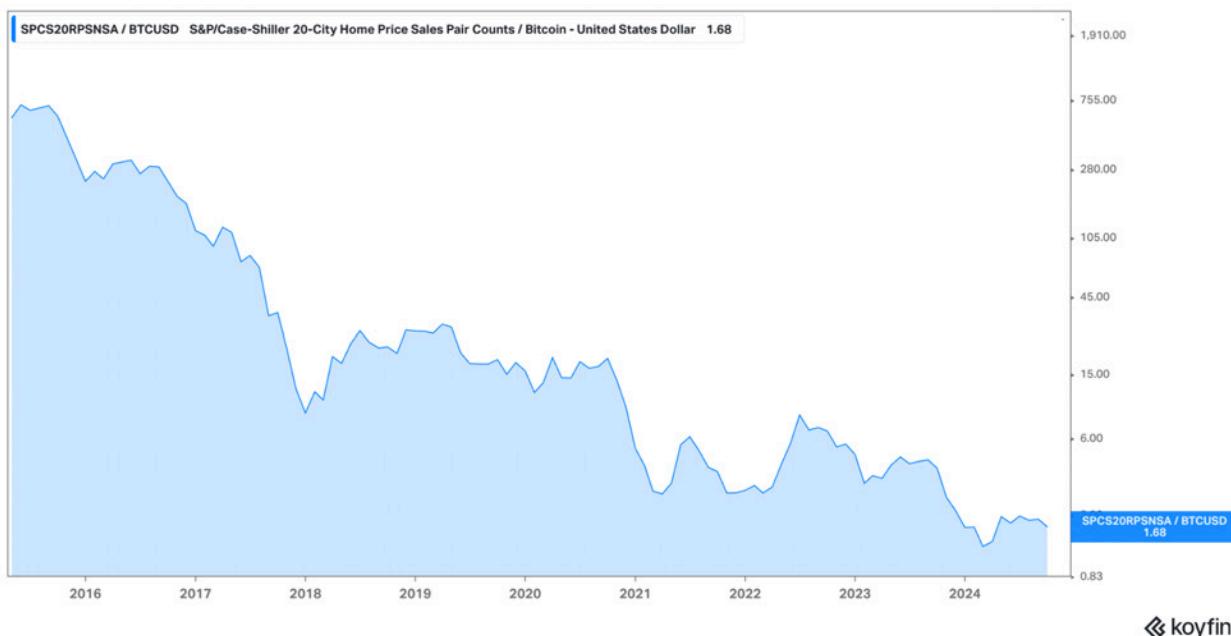
Worldwide, the \$320 trillion stored in property markets is mostly made up of individuals trying to safeguard their wealth and maintain its value over time. The fact that half of the owned residential real estate in the United States is not occupied highlights how property ownership extends beyond mere habitation, functioning as a “profitable” venture that, as a result, creates artificial scarcity, which reduces everyday people’s access to home ownership over time.

One might argue, then, that the expansion of the real estate market's valuation is partially attributed to **the absence of a dependable asset for**

**preserving wealth**, rather than being solely based on sound investment principles.

This phenomenon could result in an influx of new developments, potentially leading to a commoditized housing market characterized by intense competition and diminishing rental yield margins. Real estate is stationary, difficult to convert to cash quickly, and involves unpredictable risks. Despite its substantial returns in fiat-denominated terms, real estate is not the optimal method for true capital preservation.

It all goes back to a store of value's potential for dilution. Is investing in an apartment complex a prudent long-term wealth preservation strategy, given the potential for real estate market saturation?



*Real estate measured in bitcoin.*

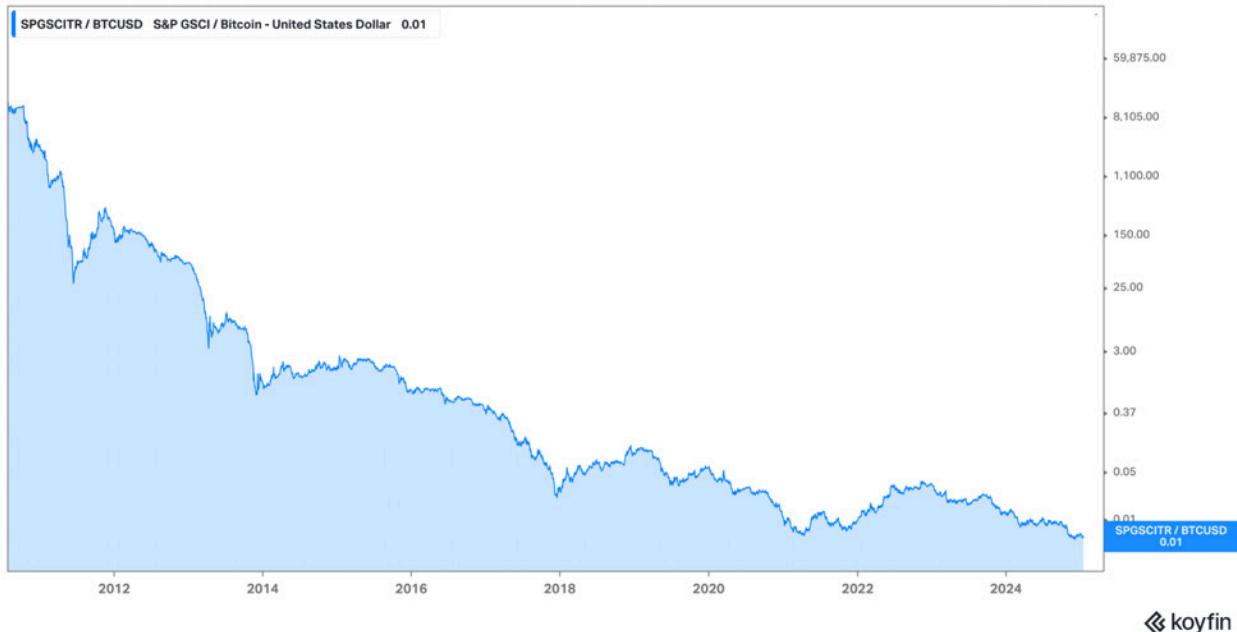
## Stock market

Investment in a diversified stock portfolio does not generate real wealth creation but rather acts as the shadow of a mechanism for capital preservation. While nominal gains may create the illusion of increasing wealth, the real value of stock investments remains relatively constant when adjusted for inflation and currency supply growth.

Investing in stocks inherently involves counterparty risk, management risk, operational risk, and political risk. In the short term, outsized returns and

well-timed execution in the stock market can grow wealth, but in the long term, indexes and exchange-traded funds (ETFs) alike have merely tracked the rate of monetary expansion, leaving investors flat in terms of real returns.

Another problem is that the Investment Company Act of 1940 means a company that holds more than 40% of its total assets (excluding cash and government securities) in investment securities may be classified as an investment company by the U.S. Securities and Exchange Commission (SEC).



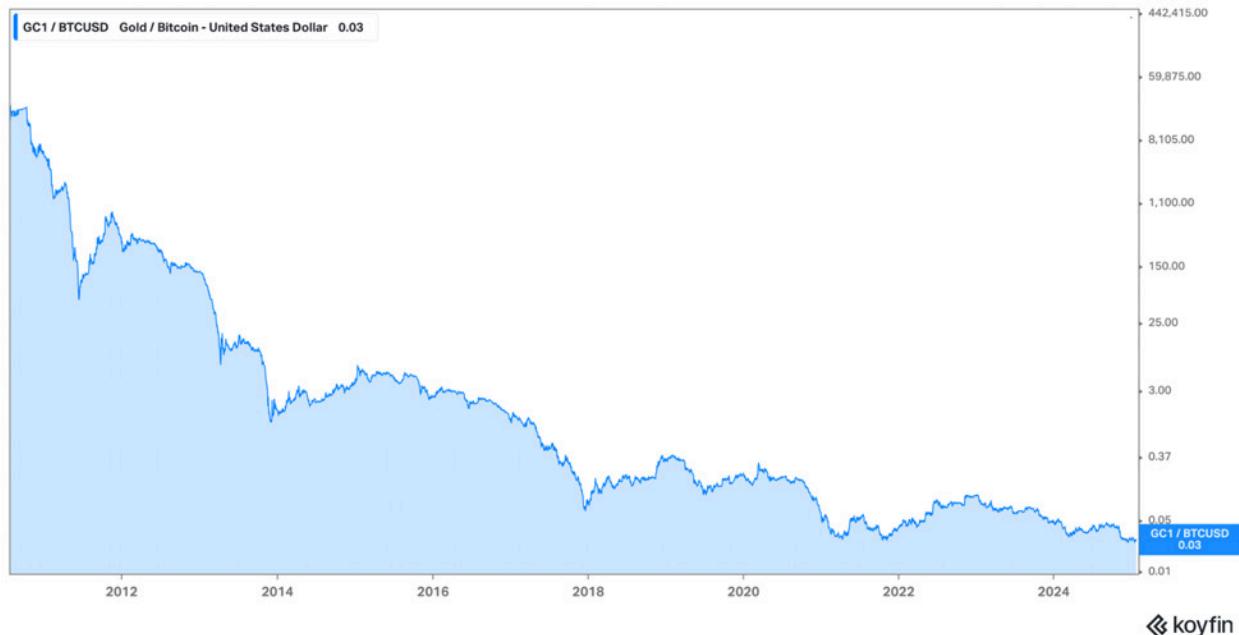
*S&P 500 measured in bitcoin.*

## Gold

Despite its 6000-year history and moderate physical scarcity, sufficient technology can mine gold indefinitely. As our technology improves, so too will the rate at which new gold enters circulation. Once you understand that the true inflation rate far exceeds the 2% target that the Fed aims for, investing in gold or even bonds won't make the cut if your goal is to preserve wealth.

*"Gold's role, therefore, has not been to be a performant store of value, which is why we don't find it on virtually any corporate balance sheets globally. Instead, it's more of a pure defensive store of value, physically held by nation-states and households in reserve for worst-case economic*

*scenarios, or as a portfolio diversifier relative to bonds. Gold has been particularly useful as an accessible and reasonably liquid store of value in developing countries with less-performant stock markets and ever-devaluing currency, but it is lackluster when there are better options available and when you're trying to keep up rather than merely play defense.” – Lyn Alden*

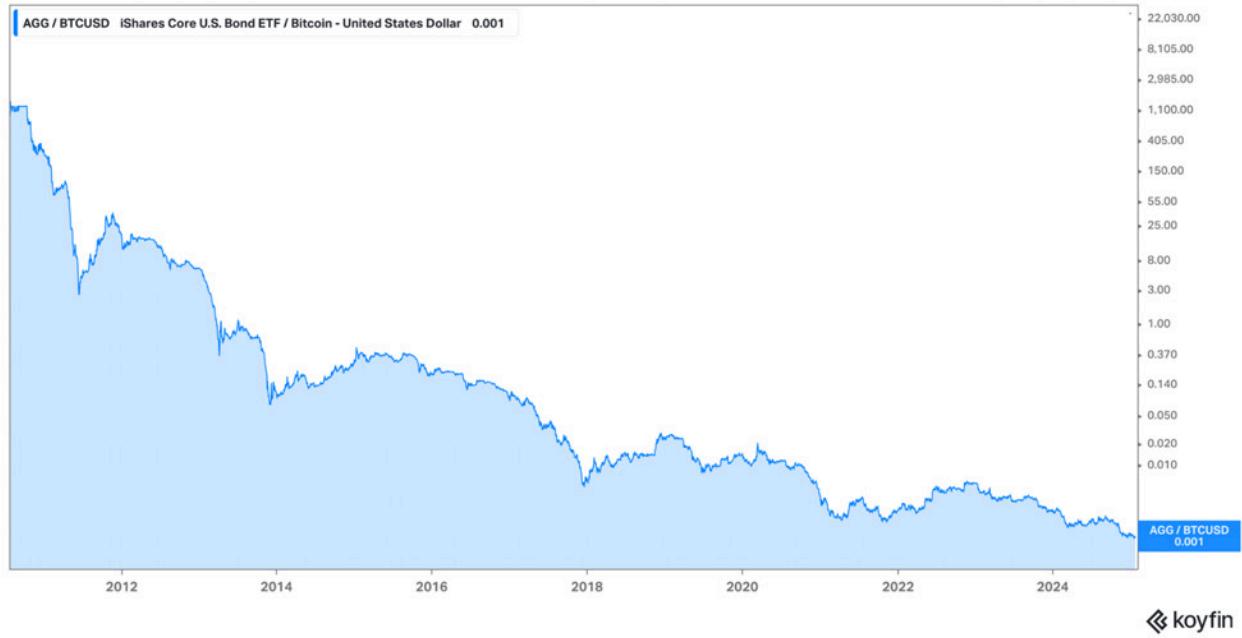


*Gold measured in bitcoin.*

## Bonds

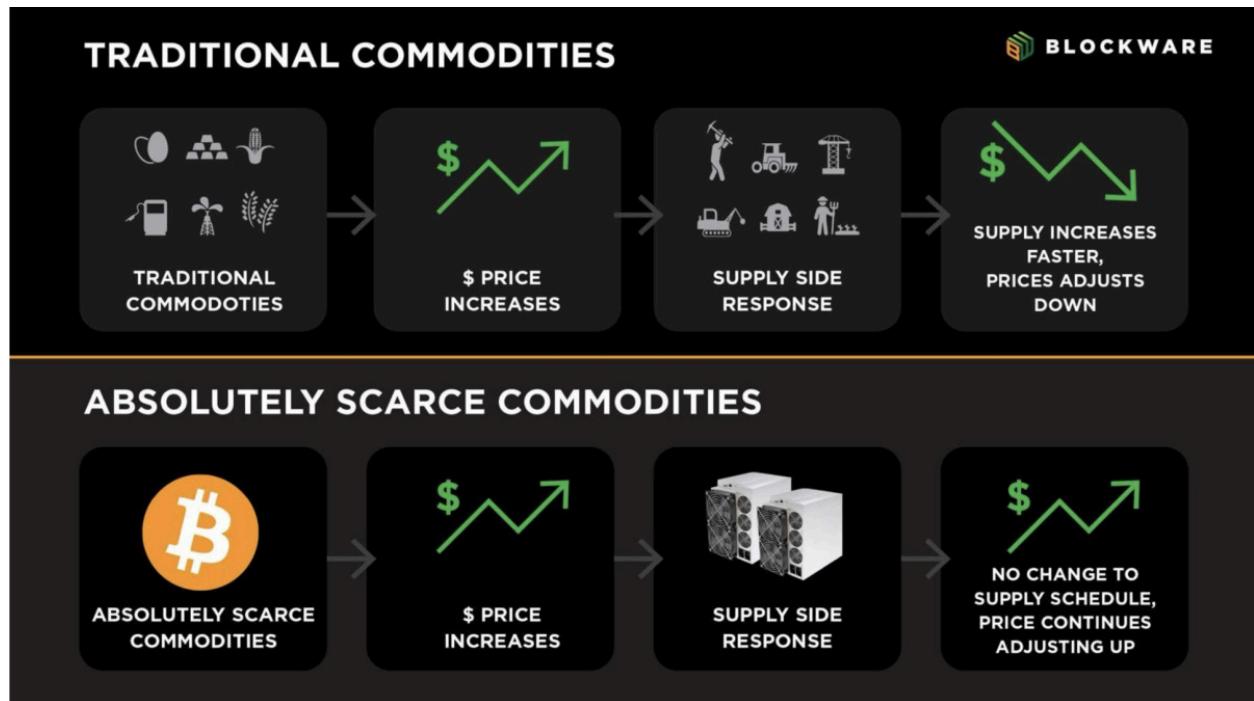
Bonds have long been a staple in conservative investing, especially for corporate treasuries seeking liquidity and predictable returns. Traditionally, bonds serve as a cash equivalent, making them relatively less risky compared to equities or other investments. However, higher and higher inflation increasingly undermines the role they serve in investment portfolios.

Inflation eats away at the real returns on bonds, turning even nominally positive yields into negative real yields. No CFO or business owner can justify parking significant cash reserves in an asset class that delivers negative real returns of 3%, 4%, or more. The risk-reward profile simply isn't favorable any longer.



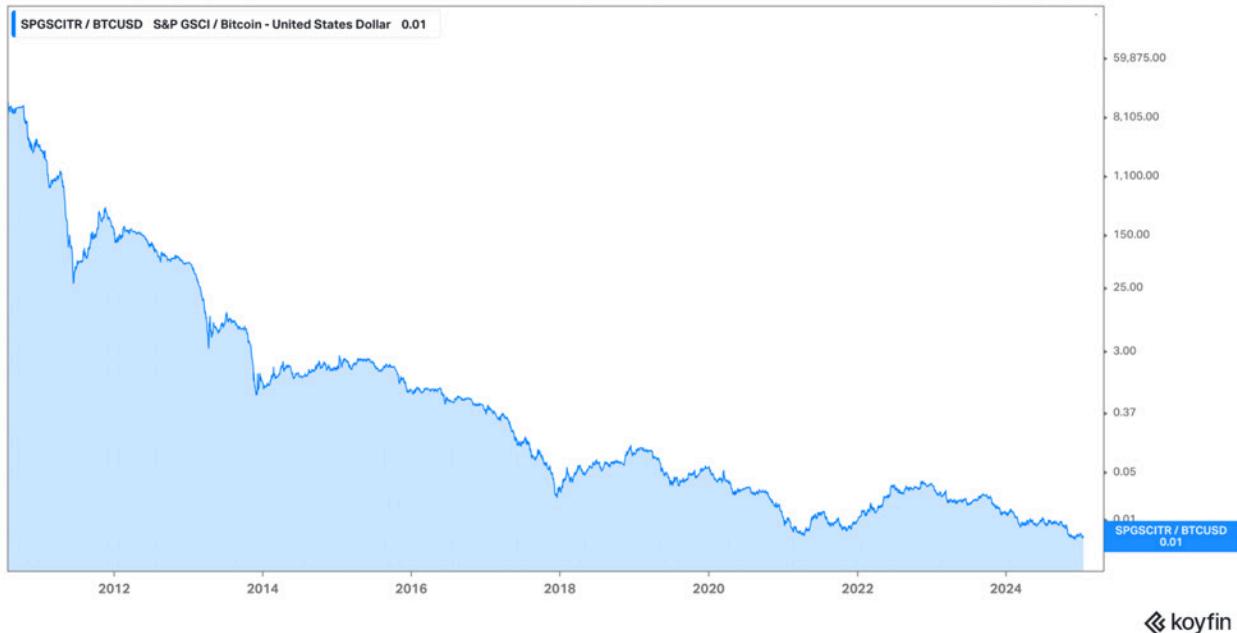
Ishares Core US Bond ETF measured in bitcoin.

## Commodities



Source: Blockware

No matter how you look at it, commodities are not a good long-term investment. As the demand and subsequent price increase, so does the production of new supply to eventually meet the demand. Whichever commodity is in high demand will attract an influx of market participants. They will work to increase its supply, thus bringing the price back down.



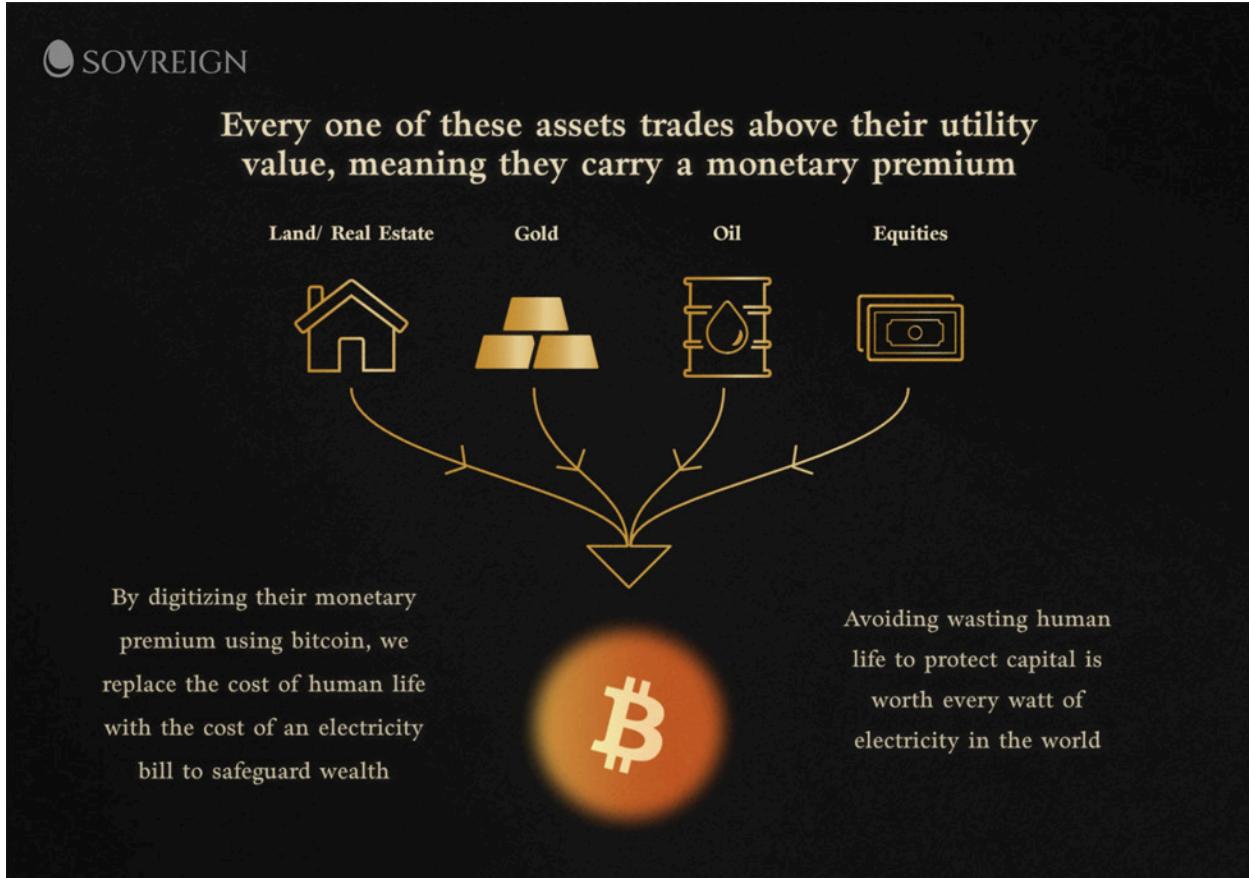
*S&P GSCI (S&P Goldman Sachs Commodity Index) against bitcoin.*

## Bitcoin is the apex asset

Unlike all other assets, bitcoin is the only one that no one can produce more of to meet its demand.

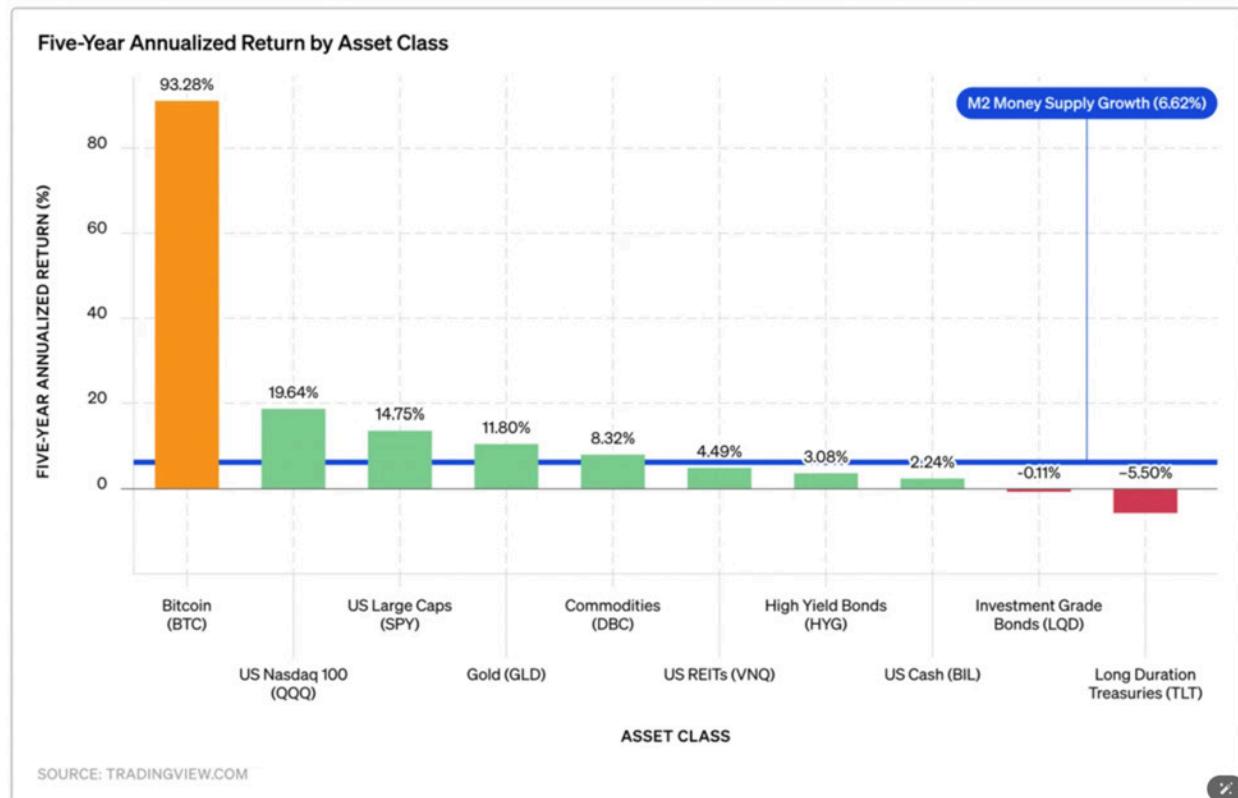
The reality is that every asset is trending towards zero when measured in bitcoin. This trend represents the long-awaited alignment of technological innovation putting deflationary pressure on costs. As this trend continues, more businesses are realizing the importance of measuring growth in terms of bitcoin. It's rapidly realizing its perception as the "gold standard" benchmark for determining value.

How that reshapes financial investment at large is unprecedented.

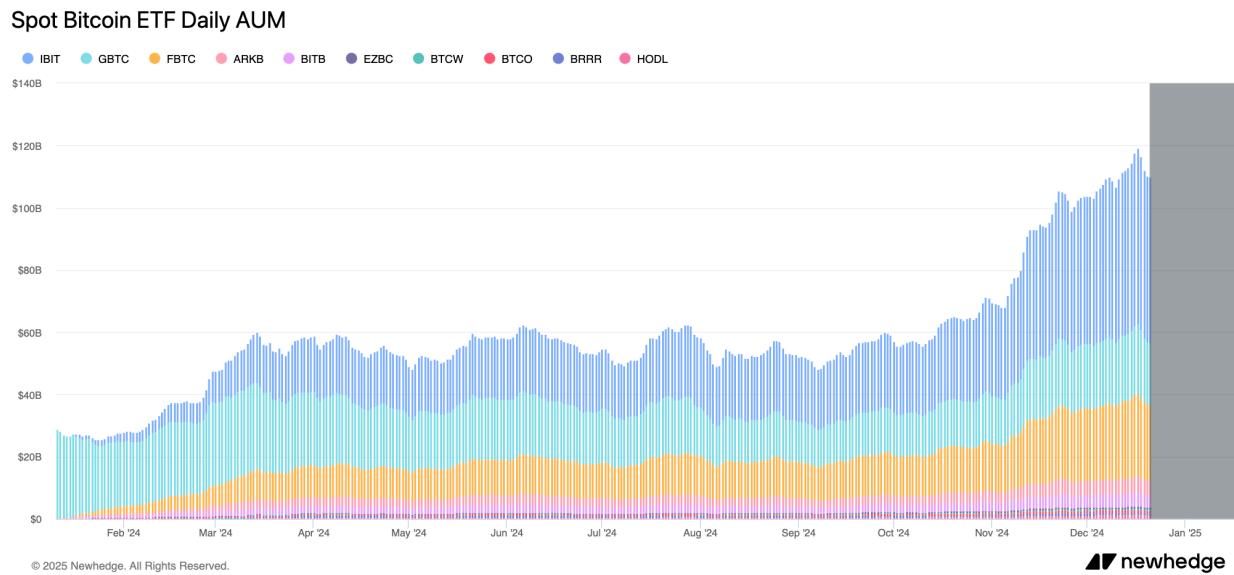


### III – The investment case for bitcoin

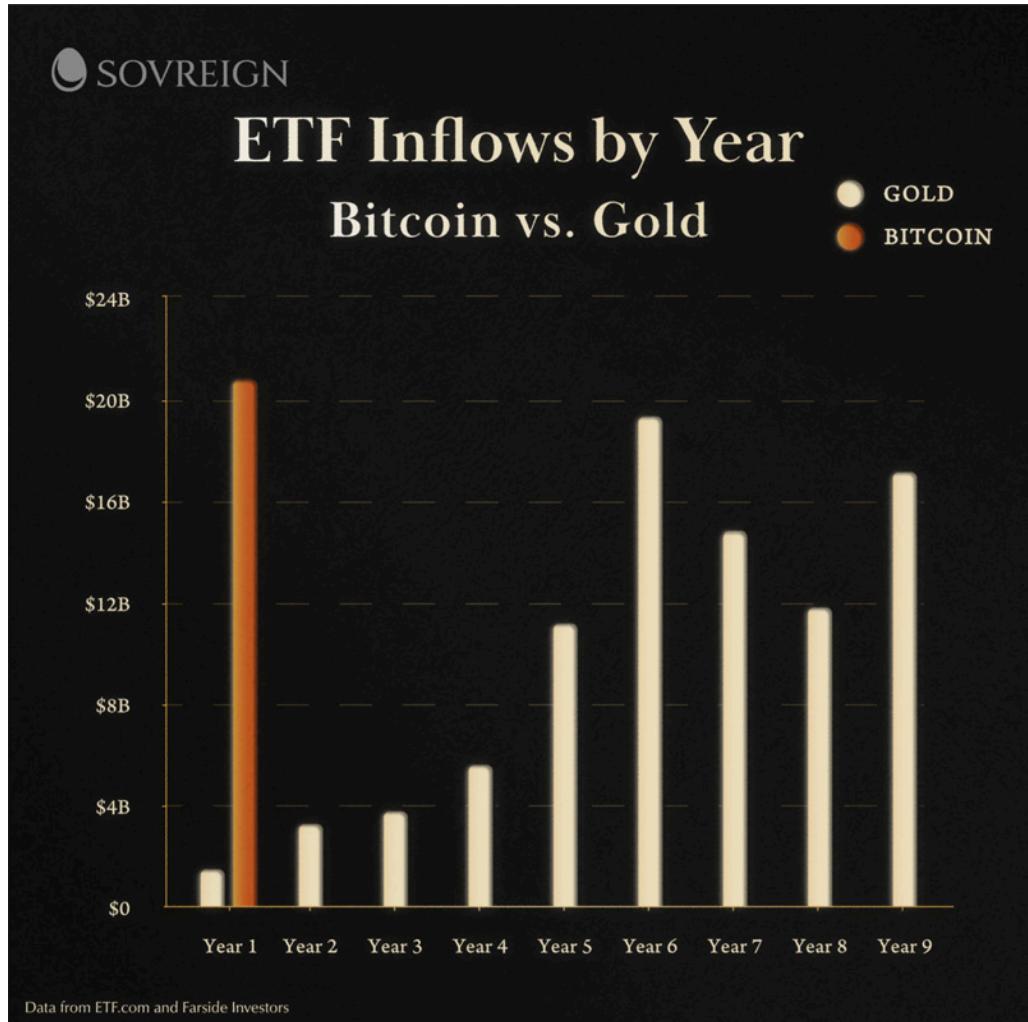
*"It would be impossible to overstate the corporate advantages of being on the Bitcoin Standard. Since 2017, we've doubled our franchises to ten, more than 10x'd our trading profits, and delivered 25% annualized ROE for our shareholders. Our firm compensation, rent, and total expenses are up 89%, 119%, and 69%, respectively, in fiat, and down 36%, 26%, and 43%, respectively, in bitcoin. The more fiat we make, the more bitcoin I buy. You cannot print bitcoin."* – Ross L. Stevens



Bitcoin's performance and global adoption have surged in ways many once thought impossible. Over the last several years, institutional investors and major asset managers have shifted from viewing bitcoin as a fringe curiosity to recognizing it as a legitimate asset class. This shift has been fueled in part by the debut of spot bitcoin ETFs, which drew over \$115.60B as of January 20th, 2025.



BlackRock's IBIT ETF, for instance, shattered records by accumulating \$20 billion in assets under management (AUM) faster than any fund in history.



Institutional acceptance of bitcoin has progressed rapidly, in part because a segment of large financial players see it as a hedge against monetary uncertainty or political turmoil. The US Federal government is currently over \$36T in debt, and growing by about \$1T every 100 days.

As more regulatory clarity emerges—and as ETFs and similar investment vehicles make it simpler for pension funds, endowments, and corporations to gain exposure—bitcoin is moving further into the mainstream. The biggest asset managers in the world have all jumped on the bitcoin train and released their own research:

- Fidelity (AUM \$4.9 trillion) published “[The Case for Bitcoin](#),” emphasizing bitcoin’s uniqueness in offering decentralized, non-sovereign money on a global scale.

- VanEck (AUM \$101.9 billion) released “[The Investment Case for Bitcoin](#),” highlighting its historic returns, scarcity attributes, and potential for portfolio diversification.
- BlackRock (AUM \$10 trillion) released “[Sizing Bitcoin in Portfolios](#)”

While many investors remain cautious, the sheer size and influence of these institutions send a strong signal that bitcoin now occupies a different space from its early days on niche internet forums. The “Walled Gardens” that restricted institutional access in the past are coming down, enabling large-scale capital to flow in.

*“Institutions will first add a tiny bit of bitcoin to select portfolios (as we are beginning to see). This is called toe-ing into a trade. Then they will do enough research to learn that by adding a 1 to 5% allocation of bitcoin to traditional portfolios like the 60/40 over the last decade not only enhances absolute returns, but also raises the Sharpe Ratio (risk-adjusted returns) and only marginally increases drawdowns.*

*It is at this point that they not only increase the first allocation to a full position, but they start adding bitcoin to other portfolios. First re-allocating capital from stocks and then from bonds and then both. And they will not be price sensitive like individual investors. They will just participate with the market volumes and buy. Then more institutions will wake up and come on board. Then many. Then most. Career risk will have transformed from owning bitcoin to not owning any.” – James Lavish*

## An uncorrelated asset

One persistent question is whether bitcoin behaves like a “risk-on” or “risk-off” asset. Traditionally, assets that perform well in economic upswings are dubbed “risk-on,” whereas those that outperform during downturns are considered “risk-off.” Yet bitcoin is tricky to slot into this binary, as it doesn’t correlate neatly with equities, bonds, or commodities over longer horizons.

Bitcoin’s short-term movements sometimes synchronize with stock market volatility—particularly when there are sudden shifts in U.S. dollar interest rates or a global dash for liquidity—but these episodes tend to be temporary. Historically, bitcoin’s correlation with equities and other “risk assets” has remained low, meaning that price swings in bitcoin are often driven by forces unrelated to those affecting traditional markets. Many

analysts see bitcoin as occupying a unique space: it's independent of any government, lacks a centralized issuer, and has a naturally enforced scarcity, making it less vulnerable to typical macro cycles or country-specific events.

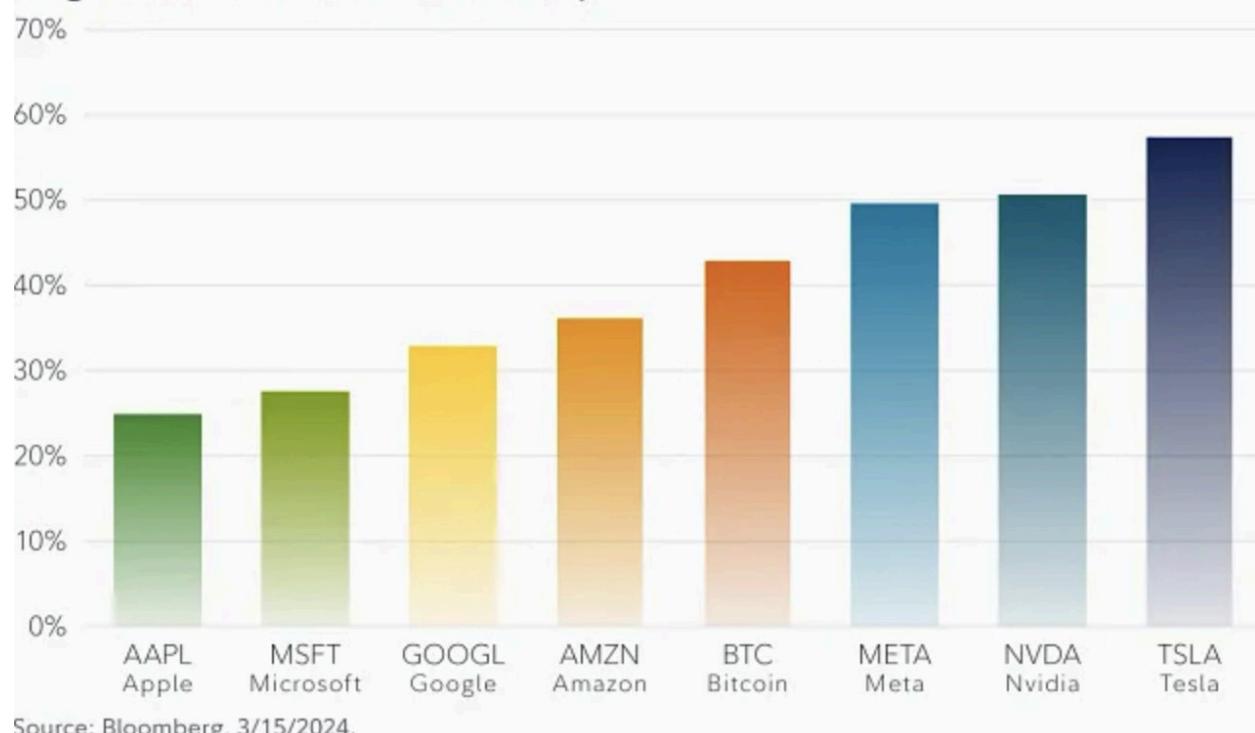
Several of bitcoin's core properties underscore its capacity to remain outside established frameworks:

- **Scarcity:** A fixed supply of 21 million coins inherently restricts the inflationary pressure faced by fiat currencies or other assets with variable supply.
- **Decentralization:** With no single issuer or governing body, bitcoin depends on a global network of nodes and miners to confirm and secure transactions.
- **Borderless usage:** Any individual or institution connected to the internet can buy, sell, or hold bitcoin, avoiding many frictions associated with cross-border transactions and traditional securities.
- **Long-term trends:** Historically, bitcoin has shown a strong upward trend over five-year periods. Despite short-term volatility, the overall trajectory has been positive.
- **Market adoption:** Bitcoin's adoption has been rising among both institutional and retail investors.

Because it relies so little on traditional economic drivers, bitcoin can sometimes act as a “flight to safety” asset, particularly during periods of geopolitical disruption or financial unease. Admittedly, short bursts of negative price reactions have occurred in moments of market panic, but many analysts attribute these to the relatively young, 24/7 nature of bitcoin markets rather than to any fundamental linkage with traditional assets.

## A look at volatility

### Magnificent Seven: 1-Year Volatility



Volatility often emerges as a top concern for those considering bitcoin. Indeed, bitcoin has seen significant day-to-day price swings over its relatively short history. At times, these gyrations have overshadowed its other strengths, causing critics to label it “too risky.” Yet [new data](#) from Fidelity and other researchers reveal a more nuanced picture.

- Comparable to large-cap equities:** in late 2023, bitcoin was less volatile than 92 stocks in the S&P 500, including major companies like Netflix.
- Declining trend over time:** As bitcoin’s market grows and becomes more liquid, large capital inflows have a less dramatic impact on price. This pattern mirrors gold’s path after the U.S. abandoned the gold standard in the 1970s—initially volatile, but gradually stabilizing.
- Attractive risk-adjusted returns:** Bitcoin’s Sharpe ratio (which measures returns against volatility) stood at 0.96 between 2020 and early 2024, outperforming the S&P 500’s 0.65 in the same period. Its Sortino ratio, focusing on downside risk, was 1.86, suggesting that a large portion of bitcoin’s volatility was tied to positive price movements.

Despite these encouraging metrics, bitcoin still experiences more dramatic short-term moves than many other assets. But we have to remember that volatility is vitality. For a business or an investor with a shorter time horizon, these swings can be unsettling. However, if you extend your perspective to three, four, or five years, bitcoin's volatility takes on a different context, as historically its price has trended upward over longer intervals. We recommend that any capital allocator take a long-term view on bitcoin, at minimum analyzing it over a 4-year period.

Fidelity puts it like this:

*“Another way to understand bitcoin’s volatility is as a consequence of its perfectly inelastic supply. A rise in demand cannot increase bitcoin’s supply or increase bitcoin’s issuance speed (thanks to the difficulty adjustment, which ensures that blocks are produced roughly every 10 minutes). This supply inelasticity is also what makes bitcoin scarce and valuable. As bitcoin educator Parker Lewis puts it, ‘Bitcoin is valuable because it has a fixed supply and it is also volatile for the same reason.’ In other words, one of the reasons bitcoin is valuable is its scarcity, but that scarcity comes from its fixed supply, which in turn makes it more volatile, as explained above. Therefore, one cannot remove bitcoin’s volatility without also removing one of bitcoin’s core fundamentals that makes it valuable to begin with.” – Fidelity*



## Assessing the risks

Like any investment, bitcoin is not without risks, and it's important to weigh these carefully:

1. **Protocol risk:** Bitcoin's network integrity and code security were once major uncertainties. Yet after 15 years of nearly flawless operation and zero hacks at the protocol level, this risk has diminished considerably.
2. **Regulatory risk:** Governments around the world are embracing bitcoin, and those that take an adversarial approach are simply cutting themselves off from innovation. President Donald Trump has vowed to make crypto and bitcoin flourish in the United States.
3. **Competitive risk:** Since bitcoin launched, thousands of "cryptocurrencies" have tried to replicate or surpass its success, but none has managed to dethrone it as the most secure, decentralized, and widely recognized digital asset.

4. **Volatility risk:** For businesses or investors who require short-term liquidity, bitcoin's price swings can pose challenges. Holding bitcoin for the long term can mitigate this concern, and many see the potential reward—offset by a relatively small allocation—as worth the price of short-term volatility.

It could be said that devoting a significant portion of corporate reserves to bitcoin, rather than holding cash, is too risky for most companies—especially those in the early stages that can't easily weather sudden price swings. This concern isn't without merit; a poorly timed move could indeed prove disastrous for a business without sufficient backup plans.

Yet there's also a substantial risk on the other side: by steering clear of any meaningful bitcoin allocation, companies may miss out on valuable upside and effectively leave money on the table. In other words, being overly cautious comes at its own cost. To fully meet their responsibility to shareholders, business leaders should at least examine whether a more substantial bitcoin position is warranted for their balance sheets.

## Treasury management

Treasury management has traditionally prioritized capital preservation and liquidity assurance, with the primary objective of safeguarding excess cash reserves. Corporate treasurers have historically relied on conventional investment vehicles such as bank deposits, Treasury bills, and money market funds, which were regarded as "safe" due to their stability and predictability.

In an era characterized by low inflation and consistent interest rates, these strategies have proven effective. However, as economic conditions have undergone significant transformations, particularly since the onset of the COVID-19 pandemic in 2020, companies are increasingly questioning the efficacy of these methods in the long run.

The pandemic-induced global economic disruptions forced the hands of central banks to enact unprecedented monetary intervention, resulting in runaway inflation, elevated interest rates, and heightened geopolitical tensions that businesses are facing today. Remember, as the money supply expands, the existing stockpile gets diluted, including your treasury.

These evolving economic dynamics have compelled businesses to reevaluate conventional approaches to capital allocation.

To comprehend bitcoin's role in all of this, it is crucial to acknowledge the limitations of conventional treasury strategies in the current economic climate. Since 2020, the global economic environment has experienced a surge in volatility. Central banks, particularly in the US and Europe, implemented substantial interest rate hikes to combat inflation. While in the short term these measures offer higher returns on cash reserves, those returns come in the context of elevated borrowing costs, diminished purchasing power, and greater economic uncertainty.

The contemporary economic landscape is beset by supply chain disruptions, geopolitical instability, and the rapid evolution of monetary policies. Consequently, holding substantial cash reserves, once a reliable source of stability, now leads to financial erosion as inflation diminishes its purchasing power.

### **Are you paying attention to your cash's real returns, or are you solely focused on nominal returns?**

Apple notoriously suffered from neglecting to answer this question. Despite the company's success over the last decade, in the same timeframe Apple took a \$15 billion net loss by playing it "safe" and keeping most of its treasury in cash and bonds. How much more could the company have achieved had it not been bottlenecked by a devaluing treasury?

By incorporating bitcoin into the treasury, your business can leverage bitcoin's long-term appreciation into a future runway for business growth. You don't have to expend as much energy maintaining short-term margins; you can buy yourself breathing room to focus that energy on the long term.

For corporate treasuries, simply allocating funds to "safe" investments no longer constitutes a viable strategy amidst these ongoing challenges. In this new climate, treasurers need to find assets that provide liquidity and flexibility while preserving long-term value. This shift has sparked growing interest in alternative assets, with bitcoin at the forefront.

## **Diversification & correlation**

Another compelling argument for digital capital is its uncorrelated nature to other assets and financial markets. As we have discussed, traditional treasury strategies typically rely on a mix of cash, bonds, and short-term investments. These assets, however, are highly correlated with broader

financial markets. In contrast, bitcoin has shown a relatively low correlation to traditional markets, making it an attractive diversification tool. By holding bitcoin alongside traditional assets, companies can reduce their exposure to systemic risks such as inflation, geopolitical risk, and currency devaluation.

Faced with limited options for long-term liquid savings, a lot of companies have prioritized returning capital to shareholders. This has led to a widespread trend of decapitalization, where businesses gradually deplete their reserves, leaving little on their balance sheets for future needs. This trend makes perfect sense in light of what we have discussed, since no proper treasury asset has existed for the past 40 years.

In contrast, universities often establish endowments, providing a cushion to weather economic downturns. These funds enable them to sustain operations over the long term, which is partly why universities tend to outlast corporations. However, the structure of corporate incentives discourages this kind of forward-thinking financial planning, resulting in shorter lifespans for most businesses.

When companies generate excess cash, they typically face a limited set of options for deployment:

1. **Stock buybacks:** A popular method is repurchasing shares. This reduces the number of outstanding shares, boosting earnings per share and shareholder value. While efficient for returning capital, it doesn't build long-term financial stability for the company.
2. **Acquisitions:** Companies might use excess cash to acquire other businesses. While acquisitions can lead to growth, they carry risks.. Poor integration, cultural clashes, or misguided synergies can dilute the acquirer's focus and financial health, turning a growth strategy into a burden.
3. **Paying dividends:** Distributing cash to shareholders as dividends is another common choice. This can satisfy investors short-term but leaves the company vulnerable if it doesn't retain enough capital for future investments or downturns.
4. **Reinvestment in the core business:** A potentially high-return strategy is reinvesting cash into the company's operations for organic growth. However, returns depend on available opportunities and the company's ability to execute. An intriguing dynamic has arisen after

bitcoin's prominence, namely that its returns often outpace a company's own P&L growth, raising difficult questions of where to invest the cash.

5. **Saving cash:** A corporation might choose to save its cash reserves. However, as we've mentioned, holding cash in an inflationary environment means slowly destroying shareholder value.

This ongoing cycle of distributing capital—through dividends, buybacks, or acquisitions—leaves corporations with fewer financial buffers. Without substantial savings or liquidity, they become dependent on market conditions and external financing to weather economic disruptions, making them more vulnerable to downturns and less adaptable in the long run. This was perfectly illustrated during Covid-19, when even megacorporations turning over billions of dollars were suddenly on the verge of bankruptcy due to brief economic uncertainty.

Bitcoin now offers every company worldwide the opportunity to convert their devaluing cash into digital capital and own a non-dilutive share of the global digital monetary network.

## Bitcoin per share & corporate strategy

Many equate fiduciary duty strictly with minimizing risk, but it actually involves both preventing downside and seeking potential growth in equity value. In a typical corporate structure, the board of directors oversees management decisions and sets strategic priorities, while the executive leadership team executes those priorities, guiding everyday operations and financial allocations. These roles naturally intersect when it comes to treasury decisions and asset allocations.

Consider a scenario in which bitcoin achieves mainstream prominence and appreciates steadily, fulfilling the expectations of those who believe in its scarcity and network effects. In that case, the treasury's allocation to bitcoin could become a powerful catalyst for the business's equity growth.

This is not to suggest that every corporate treasury should be immediately used to speculate on bitcoin price movements. But by rethinking how much of the treasury should be in cash versus bitcoin—while still respecting the firm's working capital needs—companies might unlock another avenue for building shareholder value.

## A three-tier framework for bitcoin allocations

Of course, a balanced treasury strategy must factor in a business's near-term needs, mid-term liquidity, and longer-term aspirations. Below is one way to think about sizing a bitcoin treasury:

1. **Near-term working capital:** Every company relies on short-term liquidity to pay salaries, vendors, and other recurring bills. Banking crises, de-banking risks, and other unpredictable events highlight the value of keeping a portion of these reserves in bitcoin as a hedge against losing access to fiat. Holding enough bitcoin to cover a few months' worth of expenses can provide valuable flexibility in emergency situations.
2. **Medium-term liquidity reserves:** Companies that are not yet profitable need enough runway to sustain operations between fundraising rounds. If a firm holds these reserves entirely in fiat, it avoids bitcoin's volatility; on the other hand, a blend of cash and bitcoin could extend that runway if the asset appreciates. As an example, a startup might maintain two years of runway if everything is in cash, or 18 months in cash plus 12 months in bitcoin if it wants exposure to the asset's potential upside. Any significant allocation to bitcoin in this bucket should be balanced against the fact that short-term price downturns of 50% or more are not unheard of.
3. **Long-term balance sheet position:** Once near- and mid-term needs are accounted for, a business can set aside bitcoin as a longer-term asset. Over a horizon of four years or more, bitcoin's historical track record of appreciation has been notable, albeit volatile. A target allocation might be 10% of the company's total equity value—a goal that can be achieved gradually through regular purchases, retained earnings, or additional capital inflows. If bitcoin performs well, a meaningful stake can substantially boost shareholder returns by the time a company goes for its next fundraising or liquidity event.

## Practical considerations

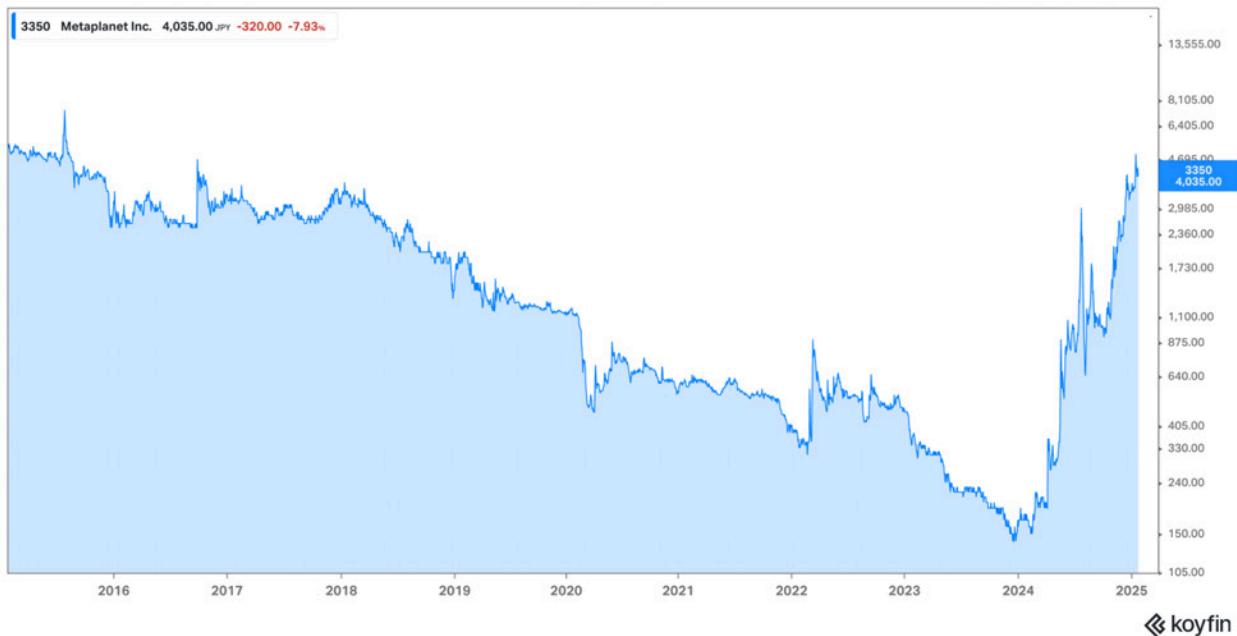
Implementing a bitcoin treasury strategy also requires careful planning around corporate finance. Some boards might argue that if the firm has no compelling internal uses for capital, distributing extra funds to shareholders is preferable. Others may favor devoting some portion of each capital raise to bitcoin, viewing it as a strategic asset that extends runway and amplifies

overall returns. These decisions always have to be thought of in the context of what else you may do with the money. If you have a long-term view, most assets can't hold a candle to the performance of bitcoin.

Normally, when a company raises equity for financing, it is dilutive as each shareholder now owns a smaller percentage of the total outstanding shares.

However, companies raising equity specifically to purchase bitcoin are experiencing an unusual phenomenon: the equity raise becomes accretive. This occurs because bitcoin's high performance and exceptional returns outpace the equity dilution, i.e. bitcoin's value appreciates faster than the shares dilute.

This strategy has proven highly profitable for shareholders, as demonstrated by companies like Metaplanet and MicroStrategy. Companies implementing these bitcoin treasury strategies are significantly outperforming their peers. In late 2024, MicroStrategy, for example, is making around \$500 million daily from their bitcoin holdings, making them arguably one of the most valuable companies in the world.



*Metaplanet's stock after adopting a bitcoin strategy. Can you guess when they bought?*

This shift transforms the traditional focus on earnings per share to a new metric: **bitcoin per share**. The key question for the future becomes: how much bitcoin do you own? In other words, what portion of this digital capital—this global reserve currency—belongs to you? This metric will be on every CFO and business owner's mind in the coming decade.



## Business Bitcoin Adoption: 2020 vs 2024

	January 2020	August 2024
Liquidity	<ul style="list-style-type: none"> <li>Market cap as low as \$90 billion</li> <li>Minimal institutional liquidity via OTC desks, futures &amp; exchanges</li> </ul>	<ul style="list-style-type: none"> <li>Market cap &gt; \$1 trillion</li> <li>Ample institutional access to liquidity</li> </ul>
Regulatory/ Accounting	<ul style="list-style-type: none"> <li>Bitcoin's accounting treatment understated corporate treasury values and added complexity</li> </ul>	<ul style="list-style-type: none"> <li>Bitcoin accounted for at fair value</li> </ul>
Institutional Acceptance	<ul style="list-style-type: none"> <li>Minimal inclusion of BTC in institutional portfolios</li> <li>Minimal BTC product offerings by major financial institutions</li> </ul>	<ul style="list-style-type: none"> <li>60% of top U.S. hedge funds own BTC via ETFs</li> <li>Bitcoin offerings by Blackrock, Fidelity, Invesco and others</li> </ul>
Precedent	<ul style="list-style-type: none"> <li>13 public companies held BTC</li> <li>Aggregate reported bitcoin in treasuries: 34,359</li> </ul>	<ul style="list-style-type: none"> <li>52 public companies hold BTC</li> <li>Aggregate reported bitcoin in treasuries: 683,332</li> </ul>

### A new corporate strategy

Adopting the corporate bitcoin standard involves acquiring substantial bitcoin holdings for the company's treasury. MicroStrategy pioneered this approach in six steps, applicable to any company worldwide where regulations and accounting practices permit.

First, the company issues convertible debt to purchase bitcoin. As bitcoin's price rises—due to the game theory of a finite global monetary asset—the

value of these purchases increases the company's market cap. Subsequently, as the company's market valuation grows, it can issue more debt by offering new shares, enabling further bitcoin acquisitions.

In essence, the new corporate flywheel model revolutionizing the business world is raising capital to benefit shareholders by issuing stock to buy bitcoin and repeating this process as often as feasible without incurring unbearable risk. The issuance of convertible debt is particularly attractive due to its significantly more favorable interest rates compared to other forms of debt issuance.

Convertible debt is a financial instrument that allows a company to raise capital without immediate ownership dilution. In exchange for lending capital, the lender receives a predetermined number of shares at a premium to the current share price. This provides the company with fresh capital to acquire bitcoin—the scarcest asset in history—which, by its inherent nature, is likely to increase in value by the maturity date of the initially issued convertible debt.

Typically, convertible debt is issued with an attractive interest rate just a few percentage points above the current share price. In contrast, raising capital through traditional market methods usually incurs interest rates between 8 to 12 percentage points.

Another key feature of the MicroStrategy flywheel is that the company's convertible debt is issued against the share value, which already trades at a premium to the company's net asset value. This structure allows any publicly listed company to raise capital at a premium to its share value, creating a "double premium" effect.

This approach mitigates the risk of a liquidity crisis and provides a deeper pool of liquidity for bitcoin purchases. Bitcoin offers unparalleled liquidity, with markets operating 24/7, 365 days a year. By raising capital in this manner to acquire more of this pristine asset, companies can access liquidity at any time, reducing the risk of capital illiquidity.

Moreover, this strategy minimizes the dilution of issued capital, as lenders are typically repaid within a few years.

This strategy ensures the digital gold asset has room and time to grow securely while you manage to pay the 0-2% interest on issued capital with current revenue, avoiding the need to sell bitcoin at a discount. With a compound annual growth rate of 104% between 2011 and 2024, issuing

conservative amounts of debt at 0 to 2% rates with long-term maturity dates—such as 10 or 20 years—is a clear opportunity for businesses today.

Now that an uncorrelated and unique diversifying asset has emerged, which the traditional financial landscape allows companies to publicly disclose ownership of (provided taxes and compliance are respected), it's only a matter of time before businesses worldwide adopt this playbook.

Another key benefit of adding bitcoin to your company's treasury is the potential for significant investor and shareholder profits. The issued convertible debt offers investors a fixed return through interest payments, while the added benefit of capital appreciation—through both equity conversion and bitcoin holdings—attracts new investors and encourages existing ones to lend more.

By the time you repay the promised premium on your shares to shareholders, you're likely to have generated extra income far exceeding the initial promised rate.

Even if bitcoin's compound annual growth rate (CAGR) decreases substantially in the coming years or decades due to rapid adoption, the window of opportunity won't close entirely. This is because there's unlikely to be a second-best finite asset class with a greater capacity to surpass bitcoin.

## Risks and benefits

First, implementing this strategy can be complex, as convertible debt agreements are challenging to manage without proper guidance. Multiple variables and conditions affect the conversion process, and these factors require the company to be publicly listed on the stock exchange. This means that general market sentiment directly influences share prices.

Convertible debt holders have limited control over the company's operations due to restricted voting rights. Consequently, they might base their decisions solely on market sentiment or current macroeconomic conditions, rather than the company's fundamentals.

Second, there's always a risk of conversion if the company's valuation doesn't increase due to extreme factors unrelated to bitcoin's price appreciation. In the event of company failure, criminal charges against the CEO, or any other scenario causing an immediate drop in stock price,

lenders might choose not to convert their debt into equity. This would leave the company with a larger debt burden and an inability to pay interest.

Fortunately, the company still has bitcoin holdings, so they might issue convertible debt based on these holdings in the future. However, this potential crisis-solving scenario still needs to be regulated before it can be considered viable.

Lastly, it's worth noting as a disclaimer that this flywheel strategy has been adopted by only a few companies so far, and the future of bitcoin's institutional adoption remains uncertain.

Moreover, this corporate reserve strategy is effective only in an environment where bitcoin's value appreciates. In the event of a "black swan" decade—an economic collapse with a severe crash across all indices and international fund agencies—bitcoin could potentially experience a prolonged downward trend. Consequently, depending on when this strategy is initiated, it may take time for bitcoin's price to increase before issuing more debt to acquire additional bitcoin.

Alternatively, it might be prudent to implement a dollar-cost averaging method, using conservative amounts of capital that won't jeopardize your company's financial stability.

Ultimately, all risks stem from either external conditions unrelated to bitcoin's core functions or from poor liquidity management. With a careful process of maintaining conservative debt ratios, the bitcoin standard is highly likely to generate value for the company and its shareholders, as has been proven by every company executing the strategy.

During market downturns, bitcoin's price may decrease, potentially lowering the company's valuation and increasing the risk of insolvency. This is why it's crucial not to invest all raised capital at a single point in time. Risk mitigation must be approached cautiously to prevent the company from going bankrupt before the acquired bitcoin surpasses the value of the issued equity—an outcome that seems inevitable due to global adoption trends.

Managing risk and capital liquidity is crucial for successfully implementing this unconventional yet potentially lucrative strategy. Proper risk management involves carefully assessing the company's financial health before implementation and maintaining conservative debt ratios to ensure solvency. It also requires strategically timing bitcoin purchases to mitigate market volatility, diversifying debt holdings to balance risk, and regularly

monitoring and adjusting the strategy as needed. Part four of this case study will extensively discuss how Sovereign helps you achieve this corporate flywheel strategy while keeping your risk ultra-low.

## Purchase strategy

The new corporate balance sheet dollar cost average ("DCA") program is essentially a traditional DCA strategy applied to a percentage of monthly gross profits or cash equity. While buying bitcoin in lump sums can be beneficial before significant price increases, it often precedes a price drop, increasing risk for the company. The DCA program aims to purchase bitcoin monthly using TWAP (Time-Weighted Average Price) orders and advantageous OTC deals, creating positive liquidity changes and ensuring competitive purchase prices.

A crucial first step in starting the DCA process is to invest 10% or more of your company's cash reserves in bitcoin. This protects your company from the devaluation of US dollar holdings, which can negatively impact your business operations.

By allocating a portion of your monthly gross profits to bitcoin investment on a predetermined, recurring schedule, you avoid the pitfalls of trying to time the market.

A more straightforward (albeit more risky) approach to buying bitcoin is to simply lump sum your available capital all at once. If your company is in a position to store away excess capital without needing to touch it for the foreseeable future, conducting a lump sum purchase is the best way to get immediate, substantial exposure to bitcoin. If you've developed conviction, are financially secure, and don't care to spend otherwise better-allocated energy on a meticulous purchasing plan over months or years at a time, a lump sum purchase can give you the peace of mind you need to focus on building up your company.

You can know with confidence that regardless of bitcoin's short-term price action, in the long term you're in a strong position to benefit from the increasing purchasing power bitcoin offers to its holders.

## IV – Case studies in bitcoin adoption

Real-world companies have already begun their transition to a bitcoin standard. Not every model described here may benefit your business directly, but these examples go to show how bitcoin can positively impact your business, no matter the size or industry.

## A deeper look at MicroStrategy

As mentioned, MicroStrategy has pioneered what could be a corporate finance revolution by introducing bitcoin, and its uncommonly innovative performance metric: “BTC Yield.” According to their September 20th 8-K form, “The company uses BTC Yield as a KPI to help assess the performance of its strategy of acquiring bitcoin in a manner the company believes is accretive to shareholders.”

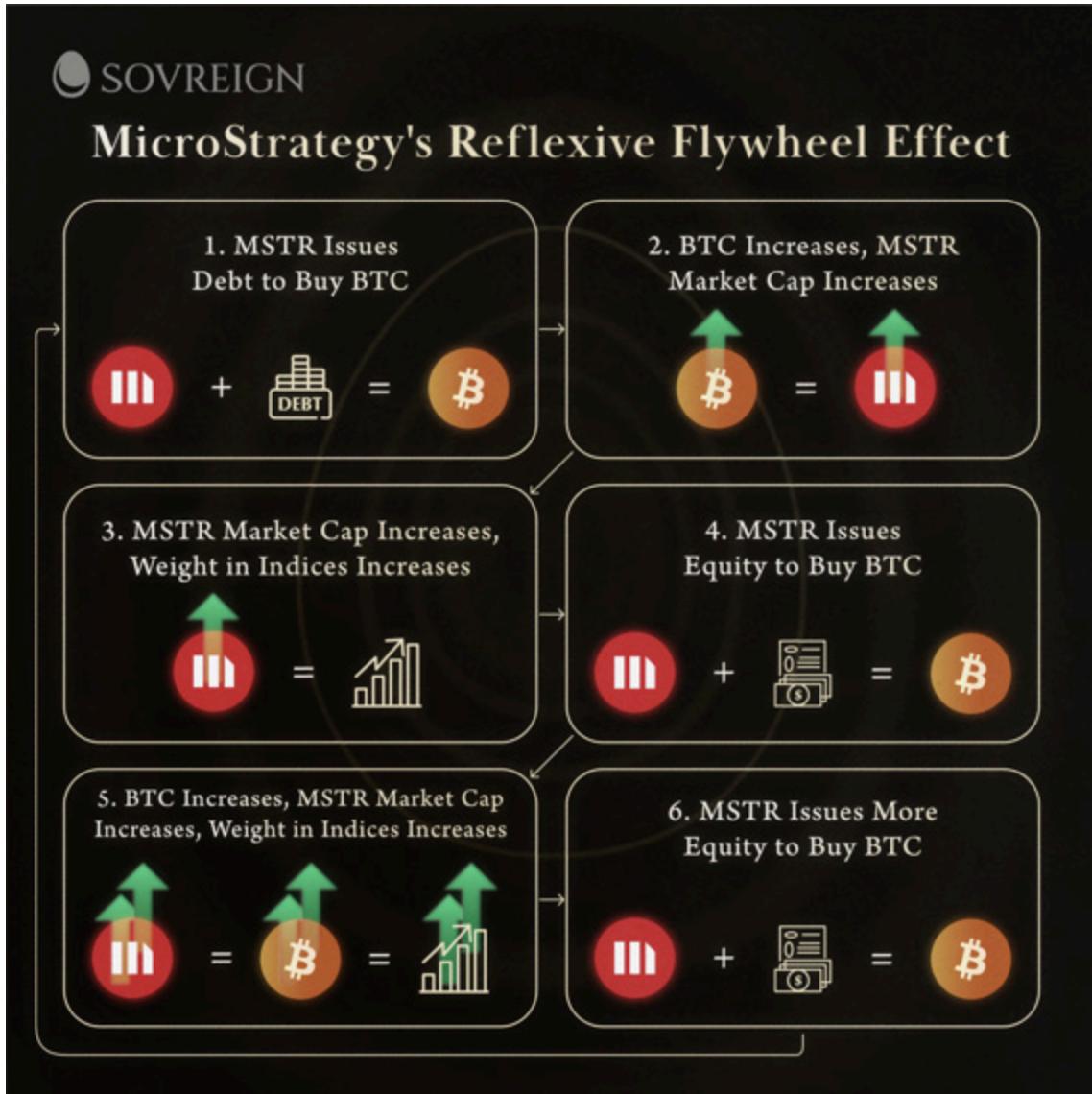
Its then-standing CEO, Michael Saylor, famously referred to the company’s cash holdings as a “melting ice cube,” eroding in value due to inflation.

To address this problem, MicroStrategy converted \$250 million of its reserve assets into bitcoin in Q3 2020. It was the foundation on which a bold plan would be built.

The idea was simple: if money is a tool whose most critical function is to preserve purchasing power, and if bitcoin is superior, buy as much as you can as cheaply and as quickly as possible.

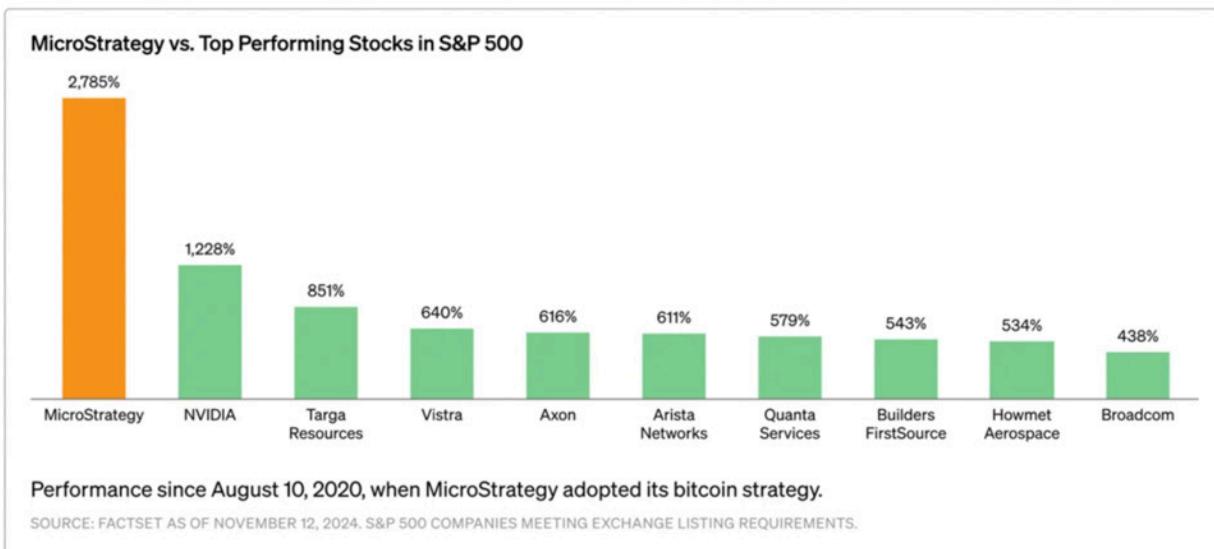
After all of its reserves were converted into bitcoin, MicroStrategy looked at issuing debt to buy bitcoin and have been able to issue at 0% interest through convertible notes, as described above.

The chart below helps illustrate clearly the reflexive flywheel effect that is created:



As of Q4 2024, MicroStrategy achieved a market cap of nearly \$100 billion (100x growth), even surpassing NVIDIA's growth to become the best-performing company in the world. MSTR now resides in the Nasdaq 100, and serves as the blueprint for many companies who have since adopted this strategy, albeit on a smaller scale. This six-phase approach is applicable to any publicly traded company where regulations and accounting practices permit.

Over four years, they have achieved balance sheet fortification against inflation as well as exorbitant equity growth through investment in bitcoin. This experiment shows that balance sheets can serve as a function of equity growth for a company even if only a small bitcoin allocation is made.



*Source: MicroStrategy*

## Tahini's

Tahini's is a Canadian-based franchise of Middle Eastern restaurants that found bitcoin as an answer to the inflationary pressures they faced in an industry that's already notorious for tight profit margins.

Tahini's follows in the footsteps of franchise giants like McDonald's, which focuses on real estate acquisition for much of its success. In fact, 80% of McDonald's assets are made up of real estate. Instead of purchasing more plots of land, however, Tahini's devotes its profits to purchasing bitcoin. The company employs a steady dollar-cost averaging (DCA) program to mitigate the volatility that bitcoin is known for, and maintains a six-month cash balance for working capital expenditures. Anything left from its cash reserves gets a 100% allocation to bitcoin.

By securing a foothold in digital real estate in the form of bitcoin, Tahini's has more financial breathing room to compete with larger franchises and break away from other smaller competitors that struggle to fight inflation while remaining profitable.

## Summerplace Homes

SummerPlace Homes is a family-owned, Washington-based home construction company managing over \$10 million in annual revenue.

As is innate to housing construction, projects often require large upfront expenditure and development plans spanning dozens of months, or even years. To finance these costs, construction companies like SummerPlace rely on credit lines from banks and have to tie up a large percentage of capital as collateral for the loans.

SummerPlace historically held a diverse portfolio of assets to weather the economic storms that hit the banking industry hard, keeping themselves resilient and able to execute. But the company took its independence a step further by converting a chunk of its cash reserves into bitcoin to hedge against economic downturns and strengthen its sovereignty in an industry notoriously prone to counterparty risk.

Beyond bolstering a company's financial independence, bitcoin is especially attractive to family-owned businesses like SummerPlace as its store-of-value properties make it ideal for passing down wealth from generation to generation.

## Real Bedford FC

Real Bedford FC is a UK football club purchased by bitcoin podcaster Peter McCormack in 2021. Struggling to make a name for itself and competing in the league's lowest-tier division, Real Bedford's acquisition was a breath of fresh air for the team.

After McCormack purchased Real Bedford, the team adopted bitcoin as the primary reserve asset of its treasury, giving it a longer runway for future investment and expansion. By positioning themselves as the only bitcoin-focused football team in the league, Real Bedford doesn't only have to rely on ticket sales, but now enjoys year-round support from bitcoin sponsors and online merchandise purchases. They've cultivated a large new fanbase beyond the UK, all thanks to their dedication to carrying the bitcoin torch. And now, Real Bedford is catching the attention of investors, most recently receiving \$4.5 million from the bitcoin-involved Winklevoss twins in Q2 2024.

Focusing on bitcoin opened up several new revenue streams for Real Bedford, enabling them to invest in new training center development, a football academy to nurture local talent, future support for girls' and youth football, as well as greater funding for the club's hardship fund, which allows financially struggling families to have their children play football.

## Block Inc. (formerly known as Square)

Under Block CEO Jack Dorsey's leadership, Block has positioned bitcoin as having the potential to be a more ubiquitous currency in the future, leading the company to make an initial \$50 million balance sheet investment in bitcoin (1% of total assets as of Q2 2020).

According to Block, this complements the company's bitcoin services (Cash App), development efforts (Spiral, formerly known as Square Crypto), and consortium efforts (Cryptocurrency Open Patent Alliance). Block's justification was to financially align with its mission of furthering economic empowerment and facilitating a more inclusionary financial system.

Since then, Block purchased another \$170 million of bitcoin in February 2021, bringing their total holdings to approximately 8,027 bitcoin. In 2024, Block announced under their corporate strategy that Block Inc. will be using 10% of their bitcoin profits to buy more bitcoin for their balance sheet, effectively adopting a dollar-cost average strategy.

## Stone Ridge Holdings Group

Stone Ridge Holdings Group (SRHG) is the parent company of Stone Ridge Asset Management (a \$10 billion asset manager) and New York Digital Investment Group (NYDIG). SRHG announced in 2020 that it acquired more than 10,000 bitcoin as the primary component of its treasury reserve strategy, citing bitcoin's superiority to cash, "unchecked" and "unbacked" global money printing, and real yields that are increasingly negative.

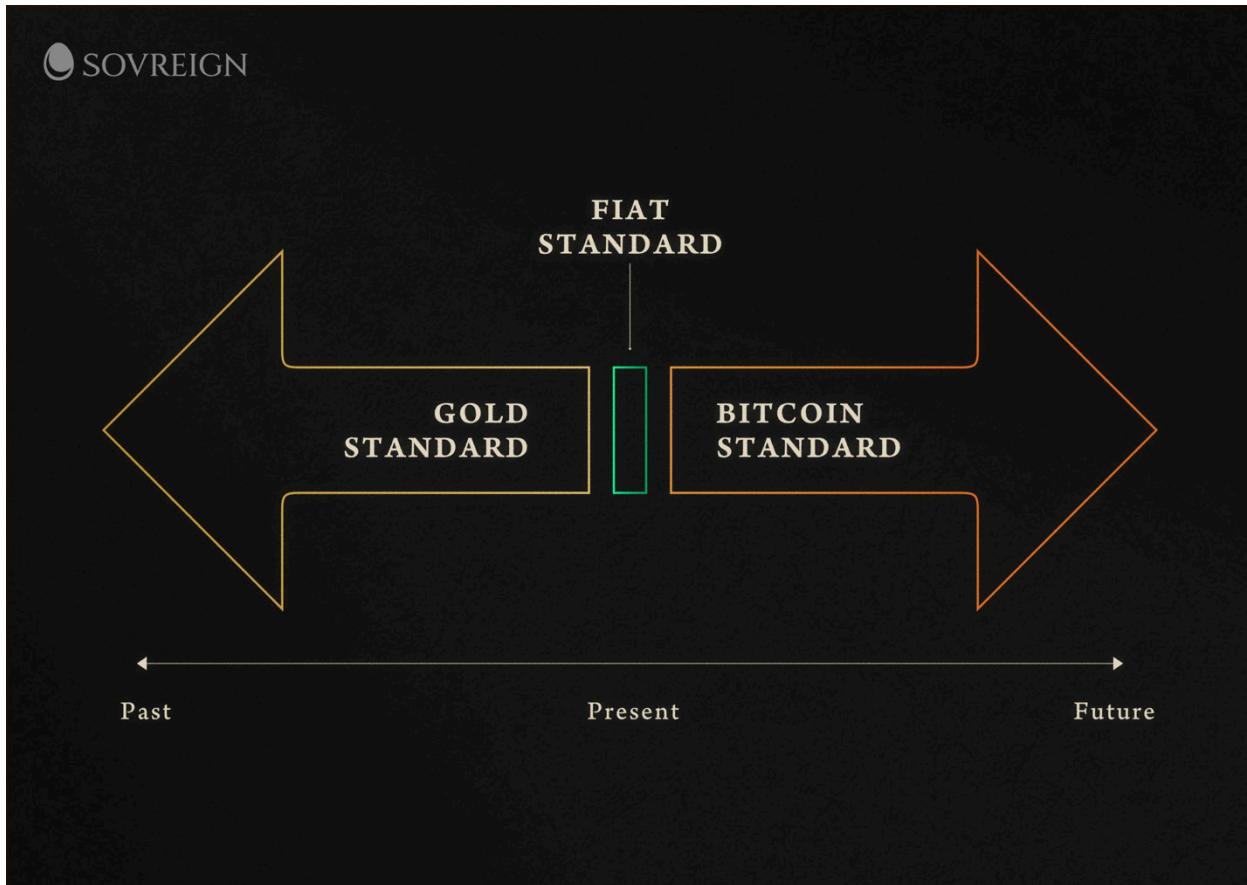
## Semler Scientific

Semler Scientific (SMLR) is a biotechnology and healthcare company that develops, manufactures, and markets products and services that help to combat chronic diseases. In May 2024, Semler Scientific announced its adoption of bitcoin as its primary treasury reserve asset along with the purchase of 581 bitcoin for \$40 million in aggregate.

In a public statement, Semler Scientific's Chairman Eric Semler cited bitcoin's finite supply cap, verifiable scarcity, and hard asset qualities as enticing reasons for making an allocation: *"We believe [bitcoin] has unique characteristics as a scarce and finite asset that can serve as a reasonable inflation hedge and safe haven amid global instability. We also believe its digital,*

*architectural resilience makes it preferable to gold, which has a market value of approximately 10 times that of bitcoin. Given the gap in value between gold and bitcoin, we believe that bitcoin has the potential to generate outsize returns as it gains increasing acceptance as digital gold.”*

## V – The Bitcoin Business Standard



Even the most ardent bitcoin supporters have difficulty understanding and describing the full scope of what bitcoin can do for businesses. While this eBook makes the investment case for bitcoin as a business, the truth is that bitcoin is much more than an investment. It's a new philosophy of existence in today's economic landscape.

To help understand this paradigm shift, we've created the Bitcoin Business Standard: a framework to discover bitcoin's potential applications in a business setting. Helping companies adopt this paradigm shift for themselves is Sovreign's sole focus.

As a new framework for businesses, The Bitcoin Business Standard can serve as a guidepost, giving people an idea of where they're at in their bitcoin journey and providing them with something to aim for in a structured manner.

The Bitcoin Business Standard represents the pinnacle of business adoption: a company that has replaced outdated 20th-century ideas with new ones powered by emerging technology.

It means the company is taking full advantage of bitcoin's **financial, operational, and cultural benefits**.

The Bitcoin Business Standard doesn't merely aim to add bitcoin as an asset on a company's balance sheet—it's a holistic approach that leverages bitcoin's unique influence on all facets of business.

*"In ten years, every company in the world that needs to send payments cross-border will use lightning to do that, either knowingly or unknowingly, but the underlying technology that will transport value cross-border for the world will be lightning for any consumer and any company."* – Daniel Frank, Sovereign CEO

## Buying bitcoin for your business

The first step to transitioning to a bitcoin standard is adopting bitcoin as a treasury asset. No matter the size of your balance sheet, stowing away excess capital savings in bitcoin bolsters your company's financial resilience and, in the long run, opens up new opportunities for business growth.

Sovereign can help connect you with the right people to strategize your approach to allocation. For most businesses, a steady dollar-cost averaging (DCA) schedule is the best option as it mitigates potential volatility while ensuring bitcoin exposure won't impede on your business's immediate financial needs. However, if you prefer different purchasing methods, our team specializes in determining the optimal approach for your business's unique circumstances.

## Managing custody for your bitcoin

Custody is a critical component of what makes bitcoin, bitcoin. When you purchase bitcoin on an exchange and simply leave it there, you don't actually own the bitcoin you purchased. You own an IOU to that amount of bitcoin. Without directly withdrawing your purchased amount from the platform to a storage device, you run the risk of losing that bitcoin in case of an exchange's sudden fallout or bankruptcy.

2014's Mt. Gox collapse was one of the most famous examples of this in bitcoin's history. Started in 2010, Mt. Gox grew to become the most prominent bitcoin exchange, with more than 70% of all trading volume being settled on the platform. The exchange's clients kept over 850,000 BTC on the platform. When the exchange suddenly went bust after being hacked, that bitcoin never saw the light of day again until legal proceedings began in 2021.

To properly take custody of bitcoin, you need to purchase a dedicated hardware device, also known as "cold storage," that keeps your bitcoin offline with a set of private keys that only you have access to.

At the beginning of 2024, the Securities and Exchange Commission (SEC) approved numerous bitcoin spot ETFs, giving institutions exposure to bitcoin's price appreciation without having to directly hold the underlying asset. Instead, established custodians, like the world's largest asset manager, BlackRock, hold the keys to the actual bitcoin backing these ETFs.

If your business is purely focused on bitcoin's price appreciation, then a bitcoin spot ETF may be right for you. However, to truly enjoy the pristine qualities that make bitcoin perfect money, you or your business must hold the keys directly.

Thankfully, if you're worried about losing the keys, you can arrange a multi-signature (multisig) setup that distributes control across multiple parties. Sovreign's partner, Unchained, specializes in collaborative custody for this very purpose. Even if Unchained were to go under like Mt. Gox, your business would still have access to your bitcoin.

## Converting in and out of bitcoin

While it's recommended to hold bitcoin for the long term, ultimately using it as a way to project value into the future and selling when necessary is where most businesses still operating in a fiat-based financial landscape will get use out of it.

Thanks to bitcoin being one of the world's most liquid assets, buying and selling bitcoin, even in very multi-billion dollar quantities, does little to affect its day-to-day movements. You can rest assured knowing that you can buy or sell any amount of bitcoin without slippage eating into your swaps.

## Rethinking accounting on a bitcoin standard

Under revised FASB guidance, bitcoin is now classified as an asset that must be measured at fair value. This means companies record both increases and decreases in bitcoin's market price in their financial statements each reporting period. If the price rises, that gain may be recognized, rather than waiting for the bitcoin to be sold. If the price falls, an impairment charge (reflecting the new, lower market value) will appear on the income statement.

Bitcoin also introduces "triple-entry accounting," a framework that improves upon the traditional double-entry system by cryptographically sealing transactions involving outside parties through a third entity. This seal is placed alongside the bookkeeping entries of both parties. When a transaction is entered into the blockchain as a third entry, it serves as both a receipt and proof of the transaction.

This goes beyond the receipts held by each party in a double-entry system, providing an additional layer of verification and transparency for companies. In a global economy-wide accounting system, a massive amount of administration is eliminated since there's no longer a need to maintain separate local sets of books. The borderless, global, instant ledger brings substantial benefits to accounting, particularly in trade settlement.

Previously, there was no guarantee that the person you were dealing with viewed the transaction the same way or recorded identical numbers in their own books. Transactions in a triple-entry system serve as both a receipt and proof that something occurred between two parties—surpassing the receipts each party holds in a double-entry system. Since these entries are distributed and cryptographically sealed, falsifying or destroying them to conceal activity is impossible.

The advantages of a triple-entry system are enormous in terms of reconciliation, transparency, trust, and auditing. As the world moves forward toward bitcoin, it will increasingly become standard practice for meeting the demands of legislators and customers alike.

## Bitcoin & taxes

Bitcoin is subject to capital gains tax, just like stocks or real estate. This applies when bitcoin is sold or exchanged for fiat currency or goods/services.

The IRS has postponed the requirement for exchanges and brokers to default to FIFO (First-In, First-Out) until January 1, 2026. Until then, businesses can still use alternative methods such as HIFO (Highest-In, First-Out) or LIFO (Last-In, First-Out), provided those methods are properly documented for bitcoin acquired before 2025.

Under the new rules, universal accounting will be discontinued, so each account or wallet will need a separately tracked cost basis. Taxpayers are not required to submit their wallet addresses or UTXOs to the IRS, but they should maintain accurate internal documentation in case of an audit or a future sale.

A “safe harbor” provision allows continued use of alternative accounting for pre-2025 assets. Businesses that wish to take advantage of this safe harbor must assign and record cost basis for each separate wallet or account, either at a specific lot level or by using a weighted-average approach. Whichever strategy you choose, be sure that all records are precise and up to date, especially if your organization anticipates frequent buying or selling of bitcoin.

For multinational companies, tax treatment can vary significantly between jurisdictions. You’ll need to work closely with a tax advisor familiar with both local and international tax rules regarding digital assets. If you have any questions regarding taxes, Sovereign has licensed professionals ready to help.

## Integrating bitcoin payments

**Bitcoin payments ensure that no matter where potential customers are located, they can always find your business.**

Integrating bitcoin payments for your business could be a game-changing opportunity to tap into new audiences and cut down on costs. Bitcoin’s

unique peer-to-peer settlement layer offers significant advantages over traditional payment systems.

Transactions on bitcoin's base layer (layer 1) sacrifice speed to enhance security and ensure fraud protection for sensitive expenses, such as payroll, bills, and infrastructure.

For customer interactions, setting up payment channels with bitcoin's layer-2 solution, the "Lightning network," (LN) introduces instant settlement at near-zero cost to your business. Say goodbye to credit-card processing fees and delayed finality that third-party processors are stuck with.

Bitcoin payments also unlock new doors for unique payment models. For example, instead of a typical monthly subscription, your business can introduce a pay-per-use (PPU) option that only charges customers for what they need, offering your audience an attractive flexibility that may suit their purposes.

The added functionality of bitcoin payments is nice, but ultimately what you'll find most impactful by introducing bitcoin payments is new inroads to audiences previously cut off from your business entirely. It's especially powerful for ecommerce businesses, as they rely on a global audience with different levels of financial inclusion.

## Revamping payment processing

Bitcoin offers businesses a transformative solution to delayed settlement finality that plagues legacy payment processing. Traditional systems like credit cards, ACH transfers, and wire payments often require days to finalize transactions, creating cash flow constraints, exposing businesses to chargeback risks, and increasing dependency on intermediaries. For businesses engaged in international trade, these issues are only exacerbated: higher fees, slower cross-border transfers, and currency conversion problems.

Instead, businesses can integrate bitcoin to enjoy near-instant settlement finality. With less chargeback risks, more predictable cash flow, and no need for intermediaries, bitcoin significantly reduces friction in your payment system, making it especially valuable for high-volume operations.

Beyond the benefits for your business, your customers will also come to appreciate instant finality for a seamless, transparent transaction experience,

especially for item returns, international purchases, or time-sensitive payments.

You have to understand your customers' problems before they do. The iPhone's touch screen resolved much of the friction that everyday people didn't even realize they dealt with on a daily basis, and quickly became the standard for any mobile device moving forward.

Like Steve Jobs recognized with Apple, remaining competitive in a rapidly evolving market means being ready for the market's future climate before it arrives.

## Enabling bitcoin salaries & benefits

For companies looking to go beyond balance sheet adoption, you can pay salaries in bitcoin, offer bitcoin-based stock options, and contribute bitcoin directly to your employees' 401(k) plans.

As bitcoin continues its rapid growth into the mainstream working world, offering bitcoin benefits for new hires can be an attractive option for potential employees who wouldn't have considered your business otherwise. It's a new angle to promote your company from, and one that many more will come to appreciate alongside bitcoin's growth.

## Managing employee rewards

What if you could incentivize your employees with actual monetary rewards? With traditional currency and payment processing, it's impractical to offer an employee 27 cents for completing a training module or arriving on time for a meeting. The transaction fees would exceed the reward amount, making such incentives unfeasible.

However, using bitcoin's Lightning network, your business can enable micropayments which transfer small amounts of value without delay or fees. It's a practical way to tangibly reward your employee's small efforts that may be otherwise overlooked, which in turn leads to higher worker satisfaction and greater productivity.

## Offering bitcoin for customer reward programs

Reward programs are both antiquated and underutilized, as they often take the form of made-up point systems that have little value to customers. Using services like Oshi, you can modernize existing customer rewards programs with real, hard money that customers prefer over arbitrarily made-up points.

For businesses without an existing rewards program, Oshi offers an AI feature that quickly designs a custom program—allowing owners to get up and running in no time with minimal effort.

## Using bitcoin for verification

Because bitcoin is an immutable ledger, your business can use it to timestamp and verify any type of data. MicroStrategy implemented this in the form of a bitcoin-based decentralized identity (DID) system known as “MicroStrategy Orange.”

Orange is an attempt to facilitate immutable, permanently fixed, decentralized identities. Instead of a siloed and proprietary verification method, these identifiers provide a way for individuals to control and verify their identity universally without relying on a central authority.

An Orange-style identity system may not be 100% translatable to your business, but it goes to show how versatile bitcoin can be. As you scale, considering a system like MicroStrategy’s could help to organize employee credentials and protect sensitive data like street addresses, social security numbers, phone numbers, and other information that’s constantly lost to hackers in today’s world.

## Leveraging bitcoin-backed loans

Bitcoin is the most pristine form of collateral and continues to grow in prominence as the new standard for backing debt.

Through new lending products, companies and individuals alike can use their bitcoin as collateral for loans. Instead of selling bitcoin, businesses can secure funding while maintaining exposure to bitcoin’s long-term appreciation. This approach is particularly appealing for preserving your business’s bitcoin treasury strategy while avoiding triggering taxable events and leveraging your holdings for operational or growth-related expenses.

Moreover, bitcoin-backed loans offer a more transparent and efficient alternative to traditional credit markets. With on-chain verifiability and the ability to eliminate intermediaries, bitcoin-backed loans can reduce costs, improve trust, and provide faster access to capital. For businesses operating in industries with volatile cash flow or high capital requirements, bitcoin-backed loans offer greater flexibility and clarify forward-thinking financial planning.

## Mining bitcoin for your business

Most energy companies end up with wasted or stranded energy in various ways. By employing bitcoin miners, these companies can create a brand new revenue stream from otherwise unused energy, while also improving operational efficiency and optimizing energy use.

- **Renewable energy sources** like hydroelectric plants, solar farms, and wind farms can use excess off-peak energy for mining to create new revenue streams.
- **Oil extraction sites** can convert wasted methane into mining power, reducing emissions while generating profit.
- **Nuclear plants** can enable continuous output by using the excess capacity for mining during low-demand periods.

The use cases for bitcoin in energy are profound and offer a breakthrough in energy creation and transmission. What was once a geographically limited tool, bitcoin now unleashes for businesses to take advantage of no matter their location. Operating a business in remote areas with limited energy availability never made sense. But thanks to the internet and a digitally native commodity to store energy, economic activity can now spread to every far corner of the globe without reliance on previously existing energy hubs.

For most operating companies, it might not be practical to deal with the physical setup, technical complexities, and ongoing maintenance involved. A solution known as “hosted mining” aims to lower these barriers, and one option in this space is [Sazmining](#).

Rather than purchasing hardware and building out infrastructure on-site, companies can contract with a third-party host that manages the rigs and

monitors the mining process. This allows organizations to benefit from potential mining rewards without having to staff an entire technical team or deal with the logistics of buying and running specialized equipment.

## Getting the most out of innovation

It's not only humans that will be taking advantage of bitcoin for their business. Artificial intelligence agents themselves can now hold, send, and receive bitcoin. In an increasingly digital world, holding and processing bank-vaulted digital dollars doesn't make as much sense when there's a perfectly transparent, open-source, instant settlement layer for transmitting value available to AI.

*"Bitcoin is set to become the cornerstone of the machine economy, enabling seamless, autonomous transactions between AI agents."*

– Alex Leishman, River CEO

Tools like LangChainBitcoin can integrate the Lightning network into AI protocols, allowing autonomous AI agents to manage bitcoin balances, conduct transactions, and access payment-metered APIs seamlessly. Bitcoin is always on the bleeding edge, and on the cusp of opening up a monetary future where AI agents can transact independently, enabling machine-to-machine economies that streamline productivity and further expand bitcoin's importance to business operations in the 21st century.

## VI – Bitcoin custody

Most individuals' journey into bitcoin begins when they discover its potential as a revolutionary financial instrument that addresses fundamental flaws in traditional monetary systems—notably debasement, restrictions, and financial repression. Upon deciding to allocate capital to bitcoin, newcomers must immediately tackle the crucial question of how to store their bitcoin.

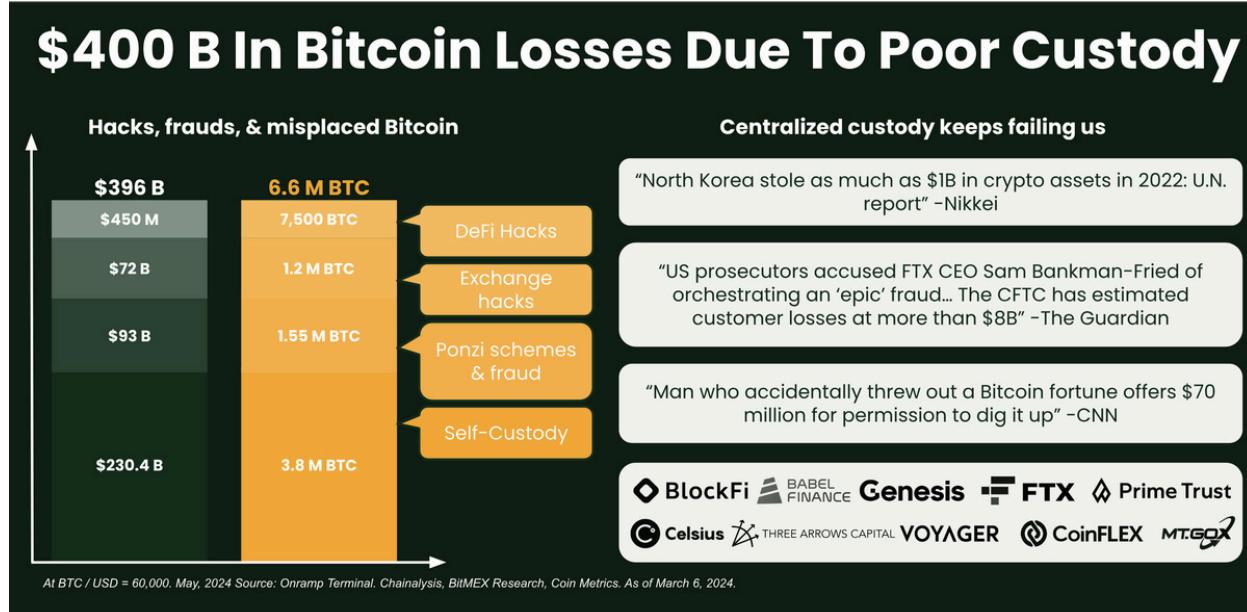
It is crucial to distinguish between self custody, where you manage your own keys, and outsourcing storage to a custodian. While the bitcoin ethos calls for self custody—something we're extremely passionate about at Sovereign—there is no one-size-fits-all approach to bitcoin custody. We'll begin by examining different solutions before delving into the most reputable custodians and products in the industry.

## Self custody

The concept of self custody in the bitcoin ecosystem revolves around private key management. These cryptographic keys function as the essential tools for executing transactions. When bitcoin remains on an exchange or other platforms without being transferred to self custody, users effectively hold mere promises rather than actual assets. The exchange maintains control through their proprietary keys.

Unlike most assets we're familiar with, bitcoin is a bearer asset, implying that ownership is determined by physical possession rather than registration or the holder's identity. The simplest comparison would be physical gold. On the contrary, most traditional assets like stocks, bonds, or cash deposits rely on legal records and financial institutions to prove ownership.

When you own company shares, for instance, a brokerage or custodian documents your ownership rather than you physically holding anything. This system depends entirely on trusting third parties like banks and brokerages to maintain security and enable transfers. Bitcoin fundamentally changes this model by giving complete control to whoever holds the private keys, which makes custody both simple and more complex at the same time.



Source: Onramp Terminal

Managing private keys essentially involves safeguarding confidential information. Specifically: cryptographically generated data that must remain secret and is virtually impossible to predict or replicate.

Generally, a private key is considered a password to prove ownership of assets. While creating private keys is straightforward using computers or mobile devices, security experts recommend dedicated hardware wallets to ensure keys never encounter potential online vulnerabilities.

For bitcoin, custody means controlling the private keys that grant access to your holdings. Think of it like a digital keychain; if you possess the keys, you own the bitcoin. Through public and private key cryptography, only the person (or entity) with the correct key can authorize transactions. This gives bitcoin holders complete control but also full responsibility for their assets' security. For businesses, this unique structure is both empowering and challenging, since losing access to the keys means losing access to the asset itself.

The sovereignty of digital assets fundamentally depends on retaining exclusive authority over cryptographic signatures; hence, imprudently delegating this control to external parties effectively relinquishes ownership of your holdings. A core tenet is the maxim "*not your keys, not your coins,*" which embodies the clear divide between self custody and deferred custody.

This philosophy of personal asset stewardship has always resonated throughout the bitcoin ecosystem, evidenced by roughly two-thirds of the circulating supply being independently secured by individual holders.

Upon choosing autonomous custody, individuals must carefully consider various implementation approaches. However, while securing large amounts of bitcoin used to be one of the most daunting and challenging aspects, technology and solutions have made significant strides. Today, it's possible to secure your bitcoin comfortably with near-perfect security.

## Hot wallet

Hot wallets are bitcoin wallets connected to the internet, allowing for immediate access to funds.

Their main appeal comes down to convenience:

- Funds can be transferred quickly, facilitating day-to-day transactions and operational needs.
- Many hot wallets offer user-friendly interfaces and intuitive platforms that are easy to navigate.
- They can easily integrate with online services and payment systems.

The main downside is the security vulnerabilities:

- Being connected to the internet exposes them to hacking, malware, and phishing attacks.
- They present a single point of failure, if the private key is lost or compromised, access to the funds is irretrievably lost.
- Their higher risk exposure makes them unsuitable for storing significant amounts of bitcoin.

Examples of hot wallets are Sparrow Wallet, Blue Wallet, and Electrum.

## Cold Wallet

Cold storage secures bitcoin private keys by keeping them offline, isolated from any internet connection. This method significantly enhances security and is seen as the standard for any material kind of bitcoin holdings.

Cold wallets can take lots of different forms:

- **Hardware wallets:** Physical “hardware wallet” devices often resemble USB drives that securely store private keys offline. Popular examples include Coldcard, Passport, and Blockstream Jade. When discussing hardware wallets, it’s important to distinguish between **air-gapped** and **non-air-gapped** devices. Standard hardware wallets are non-air-gapped, meaning they are compatible with external devices that may be connected online. An air-gapped hardware wallet operates entirely offline, without any direct connection to potentially compromised devices such as computers or smartphones. This means it doesn’t connect to the internet or communicate via USB, Bluetooth, or Wi-Fi. Instead, it typically uses QR codes or removable storage (like SD cards) to sign transactions, ensuring that private keys remain isolated from any networked device.
- **Air-gapped computers:** Computers that have never been connected to the internet are used exclusively for storing and managing private keys.
- **Paper wallets:** Physical documents containing printed private keys or QR codes.

Cold storage offers enhanced protection by keeping private keys offline, which eliminates exposure to online threats such as hacking and cyberattacks. This setup also requires physical possession of the storage device to access the funds, adding an extra layer of security. Because of these factors, cold storage is particularly well-suited for long-term holding of significant amounts of bitcoin, especially when the funds are intended as an investment rather than for frequent transactions.

That being said, significant advances in user experience have been made in air-gapped cold storage wallets to make them more convenient to use for everyday transactions, particularly when combined with dedicated watch-only wallets on bitcoin-only software such as Sparrow Wallet.

In institutional environments, a blended approach is commonly employed, integrating hardware security with offline transaction signing. By relying on air-gapped devices—kept entirely offline—for signing transactions,

institutions can facilitate secure, multi-party coordination without risking exposure to internet-based threats. This method achieves a balance between stringent security standards and the operational needs of handling large asset transfers both safely and efficiently.

However, a significant issue persists: all the setups we've discussed so far rely on a single signature to move funds. This creates a single point of failure for your organization and places an enormous responsibility on whoever manages it.

While there are ways to mitigate this risk—such as setting up passwords or using Shamir's Secret Sharing—the gold standard for self custody remains **multi-signature wallets**.

## Singlesig vs. multisig wallets

Many professionals gravitate toward dedicated security devices as the premier solution for protecting cryptographic keys. However, the selection process encompasses more than hardware preferences; it demands a thorough evaluation of authentication frameworks, spanning from basic single-key protocols to sophisticated multi-signature arrangements, each governing how funds may be accessed.

The optimal choice between single-signature (singlesig) and multi-signature (multisig) architectures depends heavily on individual requirements, risk tolerance, and operational needs.

While these custody models demonstrate contrasting strengths, they need not be mutually exclusive. Indeed, a hybrid approach often proves optimal, implementing multi-signature security for substantial long-term holdings while deploying singlesig solutions for smaller, readily accessible balances, particularly through lightning-enabled mobile applications.

## Single-signature

Unchained	SINGLESIG	SINGLESIG WITH PASSPHRASE	SINGLESIG WITH SEED XOR	SINGLESIG WITH 2-OF-3 SHAMIR SECRET SHARE	2-OF-3 DO-IT-YOURSELF MULTISIG	2-OF-3 COLLABORATIVE MULTISIG
SINGLE POINT OF FAILURE IN STORAGE	YES	YES	YES	DEPENDS*	NO	NO
SINGLE POINT OF FAILURE WHILE SIGNING	YES	YES	YES	YES	NO	NO
VULNERABILITY TO LOSS	HIGH	HIGHEST**	HIGHEST	LOW	LOW	LOW
VULNERABILITY TO THEFT	HIGH	LOW**	LOW	LOW	LOWEST	LOWEST
DECOY WALLET CAPABILITY	NO***	YES**	YES	NO***	YES	YES
EASY ACCESS FOR BENEFICIARIES	YES	NO	NO	NO	NO	YES
NONTECHNICAL WALLET SETUP AND OPERATION	YES	YES	NO	NO	NO	EXPERT ASSISTANCE
SPENDING CONVENIENCE	HIGH	HIGH	DEPENDS*	DEPENDS*	LOWEST	LOW
AVERAGE TRANSACTION FEES	LOWER	LOWER	LOWER	LOWER	HIGHER****	HIGHER****
UPFRONT PRIVACY TRADEOFF	NO	NO	NO	NO	NO	YES

Source: Unchained

A single-signature wallet is the simplest and most widely used form of self custody bitcoin wallet. It involves just one master private key, which can generate addresses for receiving bitcoin. If bitcoin is sent to one of those addresses, the amount will be counted towards the wallet balance, and it can only be removed from the wallet after approval from someone who has the private key.

However, this simplicity comes with inherent vulnerabilities. Even the most methodical and conscientious individuals may find themselves confronting the loss of crucial items through inadvertent errors or circumstances beyond their control.

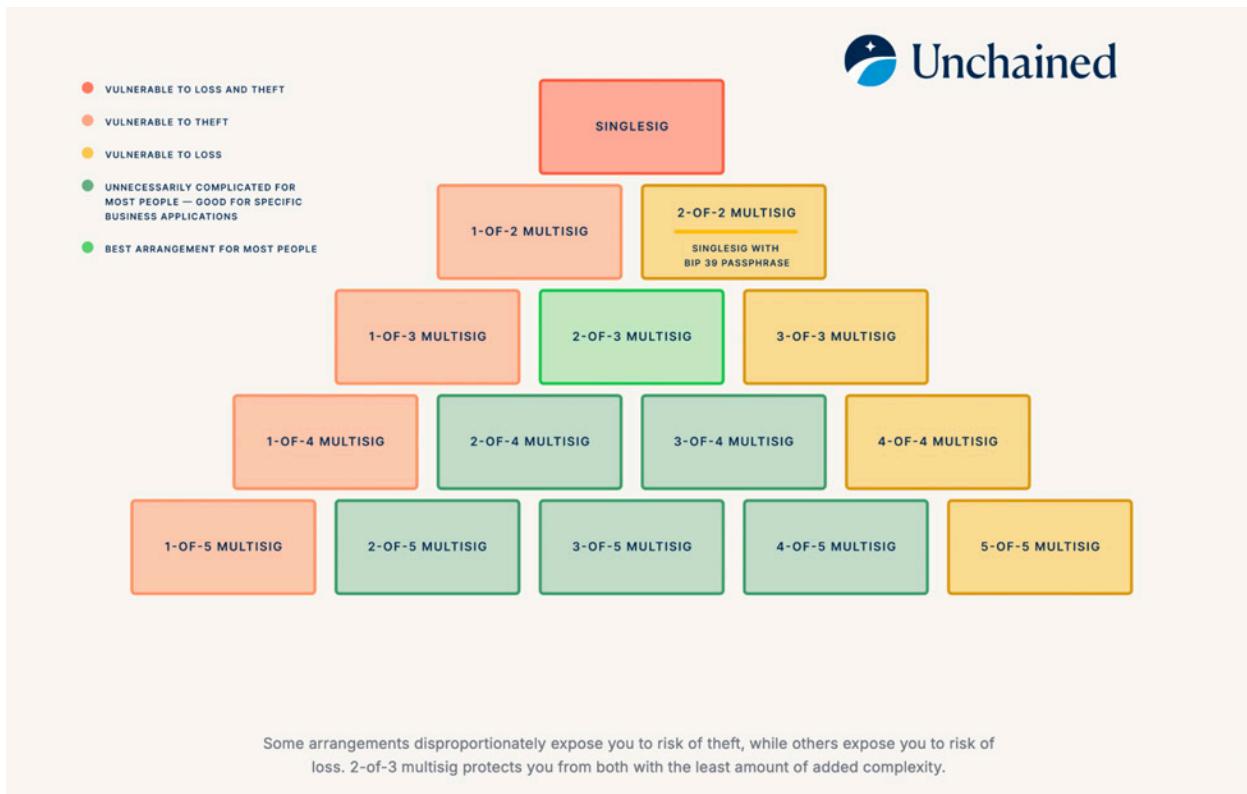
For individuals using a singlesig bitcoin wallet, basic security measures can provide effective protection without advanced technology. Common strategies include duplicating seed phrases, fragmenting them, employing different encoding methods, or spreading assets across multiple wallets.

A bitcoin seed phrase (or recovery phrase) is a set of 12 to 24 randomly generated words that serve as a backup for a bitcoin wallet. It allows the user to recover their private keys and access their bitcoin if the wallet is lost, damaged, or deleted. The seed phrase is generated when creating a new wallet and must be kept secret and secure, as anyone with access to it can control the bitcoin in the wallet.

However, these methods come with hidden risks. Duplicating seed phrases can protect against loss but also increase vulnerability. If any copy is compromised, all bitcoin holdings are at risk.

To enhance security, users can implement a BIP-39 passphrase, which adds an extra layer by requiring a user-created word in addition to the seed phrase. This means the seed words alone are not sufficient to access the wallet. While using a passphrase is simpler than creating a multisig wallet, it also requires secure storage, as losing it can lead to permanent access loss.

## Multi-signature



*Source: Unchained*

Multi-signature (multisig) wallets address the biggest flaws of self custody. Instead of relying on a single point of failure, you create a quorum of keys, requiring multiple signatures to execute a transaction. This setup is structured as an M-of-N quorum, where N represents the total number of keys involved in the wallet, and M denotes the number of keys needed to produce a valid authorization. This is commonly configured as a 2-of-3 or 3-of-5 multi-signature setup.

A multisig wallet represents an advanced security system that requires multiple digital signatures to authorize transactions. Like a vault with several locks, a multisig setup demands a predetermined number of keys from a larger set to access funds. Picture a 2-of-3 arrangement: any two keys from a set of three must work together to move bitcoin, similar to how a safety deposit box might require two keys to open. This approach vastly improves upon traditional single-signature security by removing any single point of vulnerability.

What makes multisig particularly elegant is its flexibility: key holders can authorize transactions independently, from different locations, at different times. Unlike other security schemes, the keys never need to be in the same place, even during wallet creation. This feature makes multisig especially valuable for group treasury management, where different stakeholders can securely control shared funds while maintaining their independence.

While multi-signature arrangements provide enhanced security, implementing them independently presents notable challenges due to their inherent complexity and limited availability of expert guidance. Proper management requires diligent record-keeping of multiple authentication keys alongside crucial configuration data, such as wallet descriptors and setup parameters. For newcomers, navigating these technical intricacies can prove daunting.

However, an alternative exists in the form of supervised custody solutions—a framework that maintains the essence of self custody while offering professional oversight. Under this arrangement, although certain wallet details are shared with a trusted partner, ultimate control over asset disposition remains exclusively yours. This hybrid approach streamlines the setup process by minimizing personal administrative responsibilities while delivering valuable auxiliary benefits: dedicated technical assistance, inheritance planning support, and seamless integration with various financial instruments, including trading platforms and lending facilities.

## How multisig works

In a multisig setup, private keys are generated and distributed across different parties or stored in separate, secure locations. To authorize a transaction, a specified number of these keys (like 2 out of 3) must provide their signatures. This setup builds in redundancy: if one key is lost or

compromised, the remaining keys can still authorize transactions, ensuring continued access to funds.

## Why multisig can be superior to singlesig

Multi-signature arrangements eliminate single points of failure, reducing the risks associated with losing or having a single key stolen. This structure enhances security, as an attacker would need to compromise multiple keys, ideally kept in different locations, to gain access to the funds. Additionally, it fosters shared responsibility by requiring multiple approvals for each transaction, creating a built-in system of checks and balances.

## Why multisig makes sense for a business

For businesses, multi-signature aligns well with corporate governance practices, mirroring traditional financial controls where significant transactions require multiple sign-offs. It also serves as a risk mitigation tool, distributing control among trusted team members or departments to reduce the chances of internal fraud or human error.

While powerful, these kinds of setups also have limitations in flexibility and policy enforcement. In traditional schemes, all keys are treated equally, with the only policy being how many must sign to authorize a transaction. This simplicity works for basic use cases, but for a business, there's often a need for more robust structures with layered policies, role hierarchies, and contingencies for complex operational needs.

With a layered architecture, businesses can implement a stack of multi-signature schemes with distinct roles for each key. These layers use time delays and conditional activation, enabling dynamic, policy-driven control over the custody setup. This addresses critical scenarios such as key loss, staff turnover, or emergency access.

## Collaborative multisig setup

This hybrid approach divides custody between the client and a trusted entity, using a 2-of-3 multisig setup. The custodian may control one or two keys, while the client manages the rest. An exciting new tool now available is Theya's Business Advisory Vault. In this system, the business retains two keys, while Theya holds a third as a backup.

Businesses can access a dashboard to manage their holdings, and if they partner with a company like Sovreign for custody support, they can benefit from additional management assistance. This setup provides the advantages of both Theya's key holding for redundancy and the expertise of a bitcoin advisor.

This model reduces the client's burden by delegating some responsibilities to a third party. However, when choosing collaborative custody, it is important to keep the majority of the keys held privately; otherwise, the custodian becomes a single point of failure.

## Multi-institutional arbitrage

New products have emerged that allow keys to be held by different institutions to provide security and redundancy.

This collaborative model requires a quorum of these agents to authorize any transaction, significantly enhancing security compared to traditional single-custodian systems. By distributing the risk across several institutions, businesses can protect their assets from potential breaches or mismanagement. With multi-institution custody, a single failure—such as a key loss or a hacking incident—will not compromise the entire system, making it orders of magnitude more difficult for attackers to gain control over the client's bitcoin.

For businesses, the benefits of multi-institution custody are substantial. It allows for greater control over assets while minimizing counterparty risk, as no single institution can unilaterally access or move the bitcoin.

When evaluating whether or not to outsource your custody, a few things have to be considered.

### Benefits of collaborative custody:

- **Optionality:** Professional custodians can offer secure storage solutions, regulatory compliance, and insurance coverage.
- **Shared accountability:** Liability is distributed among custodians, reducing the risk of negligence or fraud by any single party. Legal agreements can enforce mutual oversight, incentivizing custodians to

act in the client's best interest.

- **Customizable security models:** Clients can mix and match custodians with varying security practices (e.g., one institution uses hardware security modules, another uses air-gapped cold storage), creating a tailored defense against threats.

### **Trade-offs of collaborative custody:**

- **Complex coordination:** Managing multiple custodians requires robust communication and governance frameworks. Disagreements between institutions could delay critical transactions.
- **Higher costs:** Fees for multiple custodians, legal agreements, and auditing processes may exceed the cost of a single-custodian solution.
- **Technical overhead:** Businesses must ensure compatibility between custodians' systems (e.g., signing software, hardware wallets), which may require additional IT resources.
- **Slower transaction speed:** Collecting signatures from geographically dispersed parties or institutions with varying approval workflows can slow execution times compared to self custody.
- **Dependency on custodian policies:** Changes to a custodian's terms (e.g., withdrawal limits, jurisdiction-specific freezes) could unexpectedly restrict access to funds, even with multisig setups.

### **Key considerations for implementation**

When implementing a collaborative custody model, businesses must prioritize clear governance protocols to outline roles, establish response timelines, and formalize dispute-resolution processes in contractual agreements.

This ensures accountability and minimizes ambiguity during critical operations. Geographic diversity is another vital factor: distributing custodians across multiple regions helps mitigate localized risks, such as political instability, regulatory crackdowns, or natural disasters, which could compromise access to keys if concentrated in a single jurisdiction.

Additionally, regular independent audits of custodians' key management practices are essential to verify compliance with agreed-upon security

standards, ensuring that all parties adhere to protocols and maintain the integrity of the custody arrangement.

## Bitcoin ETFs

Bitcoin ETFs provide businesses with exposure to bitcoin's price movement without the need to directly buy and store the asset. While ETFs may be a low-overhead option, they introduce counterparty risk, come with management fees, and prevent businesses from converting their holdings into real bitcoin without incurring trading costs and triggering a taxable event. It's a tradeoff between convenience, access to different products, and ultimately the value propositions that bitcoin provides.

## Insurance

Regardless of how you choose to store your bitcoin—whether through self custody, collaborative custody, or institutional solutions—securing comprehensive insurance should be a non-negotiable priority. Insurance acts as a safeguard against both internal and external threats, covering scenarios like theft, accidental loss, or physical damage to storage infrastructure.

Coverage options vary depending on whether assets are held in hot wallets or cold storage. For instance, Crime insurance typically protects against digital theft or loss across both hot and cold storage environments, while Specie insurance is narrower, often limited to offline assets stored in designated physical locations, and may exclude certain insider threats.

When vetting custodians and insurance, here are key questions to ask:

- What is the total coverage limit of the custodian's policy?
- Are client wallets segregated from the custodian's own assets to prevent commingling risks?
- Who are the insurers underwriting the policy, and what are their AM Best ratings? (AM Best is a benchmark for assessing insurer financial strength.)
- Does the policy cover external threats like hacking?

- Does the policy cover internal risks such as insider theft, including misconduct by executives?
- Does the policy include coverage for natural disasters (e.g., fires, floods, earthquakes) that could destroy private keys?
- What is the scope of coverage? Does it apply to custody wallets, self-managed hot wallets, or both?
- Do the legal entities named in the policy match those in your service agreement?
- Does the custodian allow clients to purchase supplemental insurance for added security?
- What is the financial structure of the policy? Does it include coinsurance (shared cost percentages after a deductible) or self-insurance (the custodian assumes partial risk)?
- What are the specific terms for deductibles and payout thresholds?

By addressing these questions, you can ensure alignment between your risk management strategy and the custodian's safeguards.

## You have plenty of options

There are a few areas that a business needs to familiarize itself with when it comes to bitcoin custody. However, most of these topics are outside the scope of this book. If you are looking for comprehensive training and advice on bitcoin custody implementation, please reach out to us, and our experts will be able to help you.

These topics include proper risk management and insurance, governance structures and private key management, backups, regulatory considerations, accounting and tax practices, etc.

## VII – Using bitcoin to attract Gen Z talent

No matter your industry, as an employer, attracting Gen Z talent is crucial for your company's success in the decades to come. This is often easier said than done, especially for businesses in industries that don't seem exciting to young workers.

By accepting bitcoin payments, paying employees in BTC, and adding the asset to your corporate balance sheet, you can signal to this digitally-native generation that your company is prepared for the future. This can help attract Gen Z employees who often seek employment in companies that demonstrate longevity and forward-thinking.

## Why care about Gen Z talent?

Whether you're a tech company or HVAP repair, young talent is key to successful growth. While more seasoned employees bring experience, Gen Z employees bring many advantages to the workplace:

- Native fluency with digital tools and platforms
- Quick adaptation to new technologies
- Strong digital communication skills
- Fresh perspectives and energy
- Advocacy for diverse perspectives that can differentiate your company

Overall, Gen Z workers bring an entrepreneurial mindset to the workplace that can't necessarily be taught to previous generations who have spent decades mired deep in the corporate world. Therefore, companies that can attract top-tier Gen Z talent may have a leg up in their competition.

## The next generation is bitcoin first-movers

Gen Zers are already literate in digital assets and even prefer them to traditional asset classes. Recent surveys have found that Gen Z is more likely to own crypto than stocks, with another showing that the same demographic is just as likely to own cryptocurrency as real estate.

Gen Z bitcoin adoption is projected to grow not just because of their digital-first mindset, but also due to their increase in amassed wealth. Merrill Lynch estimates that Gen Z will inherit \$11 trillion over the next two decades from their baby boomer parents and/or grandparents.

## The alignment of Gen Z values and bitcoin

Gen Z also cares deeply about the impact of their work and strives to be part of something bigger than themselves. While critics often dismiss bitcoin as an energy-intensive speculation vehicle, the evidence demonstrates its substantial positive impact on both society and the environment. Bitcoin has proven to:

- **Mitigate methane emissions** and help combat global warming by capturing and utilizing flare gas for mining operations.
- **Enable renewable energy development** by providing baseline demand for remote solar and wind installations, making previously unviable green energy projects economically feasible.
- **Serve as a lifeboat** for citizens in high-inflation countries and economic instability.
- **Democratize financial access** in developing nations through its permissionless, borderless network.

Bitcoin's growing adoption in emerging markets demonstrates its vital role in promoting financial inclusion and economic freedom. From Argentina to Zimbabwe, communities are using bitcoin to preserve wealth, conduct commerce, and resist currency devaluation. This real-world impact aligns perfectly with Gen Z's desire for purposeful work and social change.

By integrating bitcoin into your business operations, you signal to potential Gen Z employees that your company understands and supports their values. Even if your core business isn't explicitly focused on social impact, bitcoin adoption connects your organization to a broader movement for financial inclusion, environmental sustainability, and economic freedom.

## Bitcoin as a hiring competitive advantage

The traditional employer-employee relationship often creates tension, with both sides trying to maximize value extraction. This is compounded by today's remote-first environment, where employees have unprecedented job mobility and companies must find new ways to create lasting alignment that retains young talent.

Bitcoin offers a unique solution by providing compensation that aligns long-term interests. Unlike traditional equity, which ties employees solely to company performance, bitcoin compensation gives employees exposure to a global digital asset that preserves purchasing power over time. When you offer bitcoin payment options or maintain it in your corporate treasury, you demonstrate both financial innovation and a commitment to employee wealth preservation.

This alignment extends beyond compensation. By adopting bitcoin, incorporating bitcoin payments, or offering employee compensation in bitcoin, companies signal their openness to challenging traditional systems and embracing technological evolution—values that resonate strongly with Gen Z workers. This creates a stronger foundation for lasting professional relationships and shows potential employees that you understand their vision of the future.

Attribute	BTC Company	Non-BTC Company
Future-oriented	Demonstrates a commitment to emerging technologies	Limited to conventional technology stack
Purchasing power	Protected against inflation through Bitcoin holdings	Subject to traditional inflation and currency devaluation
Employee benefits	Traditional benefits plus Bitcoin payment options and potential appreciation	Standard benefits package only
Innovation mindset	Proven through Bitcoin adoption, integration, and forward-thinking policies	Confined to conventional business practices
Global reach	Enhanced through borderless Bitcoin transactions and international accessibility	Restricted by traditional banking and payment systems
Talent attraction	Appeals to tech-savvy Gen Z workforce and innovation-minded professionals	Limited appeal to digitally native generations
Growth potential	Enhanced through early adoption of transformative technology	Limited to traditional business growth vectors

## Your pathway to younger, more talented employees

As the workplace continues to evolve and Gen Z becomes an increasingly important part of the talent pool, companies must adapt their strategies to attract and retain top performers. Incorporating bitcoin into your business model isn't just about adding a new, trendy technology; it's about positioning your company at the forefront of financial innovation and demonstrating your commitment to the future.

## VIII – The benefits of a bitcoin-only approach

The phrase “bitcoin-only” serves as a guiding principle for those who genuinely comprehend the cryptocurrency landscape. While crypto promoters enthusiastically promote buzzwords such as NFTs, Web3, and blockchain, it is crucial to discern the hype from substance.

These concepts are merely distractions, ingenious marketing strategies intended to attract the uninformed. While it may be tempting to believe that there is a hidden gem among the multitude of tokens, it is essential to consider the potential risks involved.

Fundamentally, the issue can be understood as follows: bitcoin is a genuine innovation that solved a problem humanity has contended with since time immemorial. Cryptocurrencies at large are an imitation of this success and have mostly served as a distraction, delaying our progress toward sound money.

Bitcoin stands out as a unique cryptocurrency, lacking an issuing entity or central authority. Its operational model sets it apart from other cryptocurrencies, providing a level of trust and stability that is unparalleled in the digital asset realm. Bitcoin was specifically designed to mitigate counterparty risk. No CEO can mismanage it, no board can alter it, no management team can err, no politician can influence it, no insider or foundation can modify it—and the list continues.

The regulatory crackdown on cryptocurrency exchanges has clarified the distinction between cryptocurrencies and other assets. The collapse of firms like FTX and Celsius exposed widespread fraud and mismanagement in the cryptocurrency industry. However, bitcoin remained unaffected because these issues didn't affect bitcoin itself; they were products of a fraudulent cryptocurrency ecosystem. Unfortunately, since the crypto industry at large tries to purposefully conflate the two, bitcoin's reputation is damaged by the shenanigans of crypto fraudsters.

As these crypto firms collapse, capital flows into bitcoin. Investors recognize bitcoin's foundational role as a **digital commodity** poised to play a global role as new money, independent of any issuer or regulatory body. This distinction has significant implications. As capital flows from untrustworthy ventures into bitcoin, it becomes evident that bitcoin's unique characteristics—decentralization, absence of a central issuer, and best monetary properties—make it the safest and most intelligent choice for long-term value.

## IX – Conclusion

Bitcoin's value to your company extends far beyond its practical benefits as a boost to your balance sheet and brand differentiation.

Fully embracing the Bitcoin Business Standard can overhaul your business from the bottom up, offering a newfound level of security and longevity that extends your time horizon and makes profitability easier to attain and maintain. Bitcoin can reshape your company's culture and cultivate new interest from untapped corners of the globe. Whether you're looking for new employees or new customers, bitcoin is the bridge that connects your business to them.

A thoughtfully planned bitcoin strategy aligns your business with the future, better positioning your company to overcome challenges before they arise, rather than letting inflation keep you stuck, fighting harder and harder against a decaying dollar that forever raises the operational expenses for companies still denominated in fiat money.

If you're struggling to find a niche for your business, bitcoin can help. If you have a defined niche but can't secure stable profitability, bitcoin can help. If costs are putting you under pressure, bitcoin can help. Whatever it is that your business currently lacks, bitcoin can help you find it.

Bitcoin is not another option; it's a necessity for staying competitive in the 21st century. The sooner you realize this, the greater the distance your business can set itself apart from competitors.

*"If you and everyone you knew spent your entire lives sick from parasites, an antiparasitic pill will seem like a magic pill. If parasites could write your textbooks and newspapers, they'd call the anti-parasitic pill an unworkable utopian fantasy." – Saifedean Ammous*

The next breakthrough for your business could be bitcoin. Don't pass up on a good thing because it seems too good to be true. Take advantage of the tools that other businesses have yet to understand. Lean into the rapidly changing world we live in. The future will only be kinder to those who did.

## X – Answering your questions

### Do you need a license to hold bitcoin?

The short answer: No, you don't need a special license to hold bitcoin.

Bitcoin is legal to own for businesses in most jurisdictions, but you should be aware of any local regulations related to reporting, taxes, or anti-money laundering (AML) compliance.

## What about political and jurisdictional risks?

Bitcoin is decentralized, but that doesn't eliminate potential political risks. Governments may impose regulations or taxes on its usage.

Some countries (e.g., El Salvador) have fully embraced bitcoin, while others (e.g., China) have restricted its use, making it important to understand local legal environments.

Different countries may have different stances on bitcoin, affecting how businesses operate. For example, some may treat it as a currency, others as a commodity, and some may impose capital controls.

For multinational businesses, this means understanding the rules in each jurisdiction where they operate and where they hold bitcoin.

## Is bitcoin a commodity or a security?

In most jurisdictions, bitcoin is considered a commodity, not a security. This is especially true in the US, where the Commodity Futures Trading Commission (CFTC) classifies bitcoin as a commodity.

This classification is key as it avoids some of the heavier regulatory burdens that come with securities (like stocks or bonds).

Unlike some cryptocurrencies that might be classified as securities (due to their issuance methods), bitcoin's decentralized nature exempts it from security laws.

## How secure is bitcoin?

Bitcoin uses a “proof-of-work” consensus mechanism to ensure the protocol’s durability.

Much like gold, bitcoin requires a mining process that releases new tokens into circulation, which helps to secure the network by making it expensive

to participate in. Bitcoin mining is available to anyone, assuming they have the resources to start.

However, unlike gold, you can know exactly how much bitcoin is in circulation, as well as when new coins enter circulation. Despite gold's relative scarcity as compared to dollars, gold miners cannot guarantee predictability or reliability, especially as technology becomes more efficient at producing more gold.

Miners engrave all transactions happening on the blockchain, batched together as "blocks," into the ledger by expending computational power. By providing "proof" that the miner who mined the next block provided sufficient "work" to generate the block, the digitally native bitcoin network actually taps into real-world energy to uphold its integrity. Manipulating the ledger is too costly, as one bad actor's computational efforts are competing with a globally distributed computer network working to prevent manipulation.

With each new block mined, the network becomes stronger and prevents double-spending by the fact that transactions are non-reversible. Anyone can look back in the ledger's history to verify a transaction's validity. The larger that ledger becomes, the greater the dataset there is to verify its authenticity.

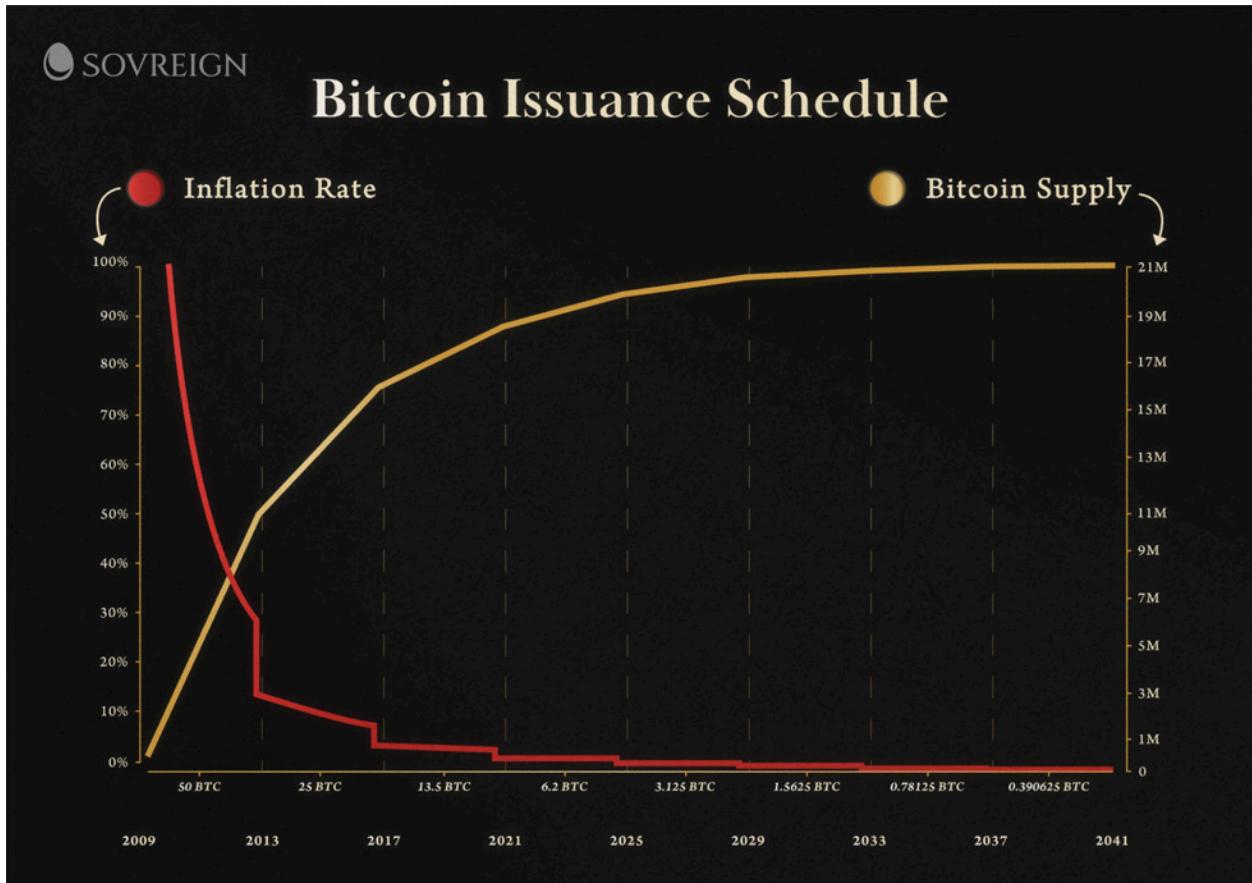
About every 10 minutes, one miner successfully validates the most recent block of transactions and receives newly created bitcoin as a reward. This system removes the need for a central bank since miners handle both creating new bitcoin and processing transactions. Bitcoin's "difficulty adjustment" is a mechanism that automatically adjusts how difficult the mining process is, ensuring new blocks of transactions are added roughly every 10 minutes.

The difficulty adjustment is a profound technological breakthrough. Instead of placing the difficulty of mining in physical space, like how gold needs to be uprooted from the ground, the difficulty of bitcoin mining is placed in time. This way, no matter how powerful computers become, no one can unfairly outwork someone else to mine new bitcoin. It will always take 10 minutes (on average) to mine new bitcoin.

Every four years, the system cuts the daily issuance of new bitcoin in half; a process known as the "halving." This halving process will continue until there are 21 million bitcoin in total, which should happen around the year

2140. Because fewer and fewer bitcoin are made over time, the currency naturally increases in value (assuming steady demand over time).

## Why are there 21 million coins?



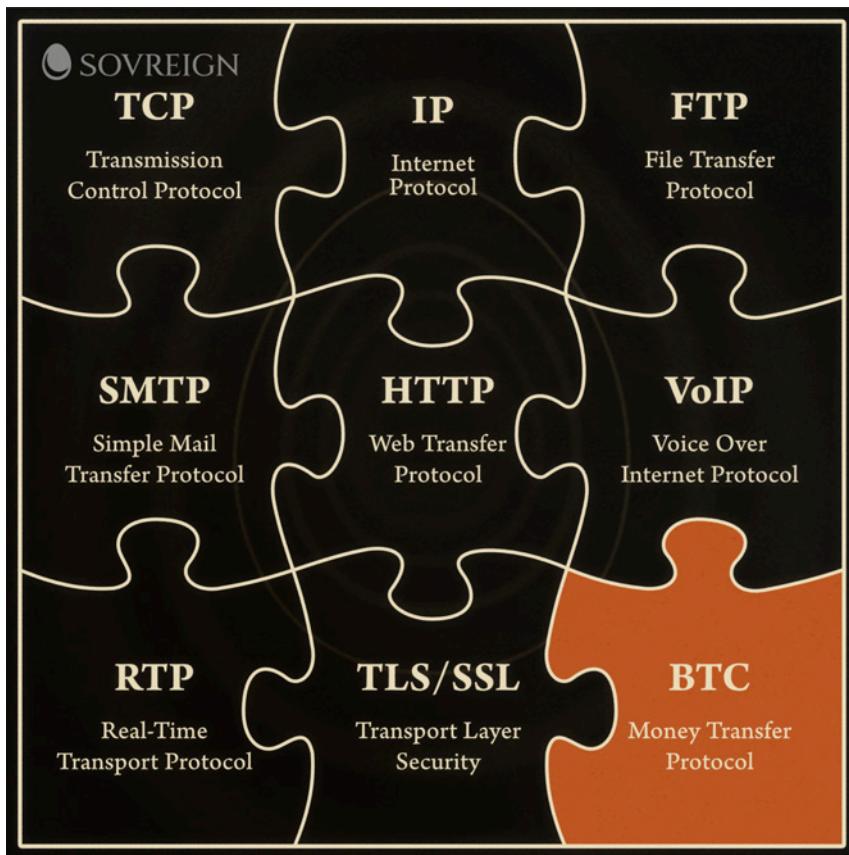
The actual total number of bitcoin is more or less irrelevant. Since bitcoin is entirely digital, you can divide bitcoin into infinitely small fractions to accommodate every user. The world could theoretically operate on just one bitcoin.

What's critical is that this number never changes, thus upholding bitcoin's core ethos of remaining trustless.

The fact that the Federal Reserve arbitrarily prints fiat currency at will makes it impossible to forecast economic growth and requires citizens to place trust in these institutions to responsibly manage the money supply. But as already explained, this trust has long been broken, time and time again.

Bitcoin's capped inflation schedule is drastically opposed to the unlimited supply of money in a fiat system. Thanks to its fixed, predetermined, and programmed supply issuance, bitcoin's scarcity is predictable, reliable, and unalterable. Installing a maximum supply establishes bitcoin's scarcity and its perception as a deflationary currency. The holders of such assets can rely on the near-zero probability that more of the asset is ever created and therefore gain confidence in using bitcoin as a savings vehicle. This fixed supply also implies that as demand increases over time, bitcoin's value appreciates, growing the holders' purchasing power.

## Why is bitcoin the best form of money?



Bitcoin is the first-ever “triple point asset.” It perfected the three functions of money: store of value, medium of exchange, and unit of account.

Just as water can exist simultaneously as solid, liquid, and gas at its triple point, bitcoin maintains these three fundamental monetary properties in perfect equilibrium. This phenomenon is unprecedented in financial

history, as traditional assets typically excel in one or two of these functions but rarely all three simultaneously.

As a store of value, bitcoin's 15-year history has proven its ability to preserve wealth. A programmed limitation of 21 million coins means that it offers absolute scarcity, a feat no precious metal or other wealth-preserving assets can guarantee.

At the same time, its digital architecture means that, also unlike precious metals and previous forms of money, bitcoin offers infinite divisibility and limitless transferability. It transcends the physical limitations of previous stores of value, enabling it to serve as a practical medium of exchange and unit of account. Since its distributed ledger keeps a perfect, immutable record of all transactions, bitcoin is rapidly monetizing to become the premier form of money and the de facto standard measure of value for global wealth moving forward in the 21st century.

 SOVREIGN

*"Bitcoin is currently transitioning from the first stage of monetization to the second stage. No one alive has seen the real-time monetization of a good (as is taking place with Bitcoin), so there is precious little experience regarding the path this monetization will take."*

-VIJAY BOYAPATI



Collectible → Store of Value → Medium of Exchange → Unit of Account