RIVER

September 2024

Research Report

Why Business Bitcoin Adoption Grew by 30% in 1 Year

From Skepticism to Strategy

About River

Founded in 2019, River is a U.S.-based Bitcoin technology and financial services company. River offers bitcoin brokerage and full-reserve custody services for individuals and businesses in one easy-to-use mobile app and on River.com.

Purpose of the Report

Bitcoin was introduced in 2008 as the world's first and only incorruptible digital currency. Over its 15-year history, Bitcoin has proven there is a better way to store and transfer monetary value than today's fiat currencies.

Recently, businesses have started adopting bitcoin as a meaningful component of their treasuries. This report will clarify where business Bitcoin adoption stands today and can help businesses take their first steps in considering this asset.

Parts 1-4 of this report focus on bitcoin's role on a balance sheet. The adoption of Bitcoin as a payments mechanism is covered in Part 5.

Executive Summary

- Businesses represent a large and growing segment of Bitcoin users, accounting for 3.3% of Bitcoin's total supply, or 683,332 BTC as of August 18, 2024. This number has grown by 587% since June 30th, 2020, and by 30% in the past twelve months.
    - U.S.-domiciled companies account for 49.3% of business bitcoin holdings, totaling approximately $19.7 billion.
    - Private companies hold roughly 23,000 more BTC than public companies, according to publicly available information.
    - Five companies—MicroStrategy, Block.one, Tether, BitMEX, and Xapo—hold a total of 559,000 bitcoin, which accounts for 82% of all corporate holdings. MicroStrategy and Tether alone make up 85% of all publicly-reported business bitcoin purchases in the first half of 2024.

- Business bitcoin adoption has accelerated in 2024:
    - The number of publicly traded companies with bitcoin holdings grew by 40% from September 2023 to August 2024.
    - We estimate that business bitcoin holdings will grow at a rate of between 204 and 519 BTC per day until the year 2026, equivalent to a range of $12.2 million and $31.1 million per day at a $60,000 bitcoin price.
    - Despite the introduction of the Bitcoin ETFs, nearly all businesses hold real bitcoin so that they don't get designated as an "investment company".

- A survey among our business clients provides insights into their Bitcoin strategies:
    - Since August 2023, the number of businesses River serves has grown by 68%.
    - 70% of River's business clients have never sold bitcoin.
    - By a wide margin, their most cited concern before buying bitcoin was its accounting and tax treatment.
    - When asked about their treasury strategy, 95% of respondents plan on growing the size of their bitcoin holdings in the future.

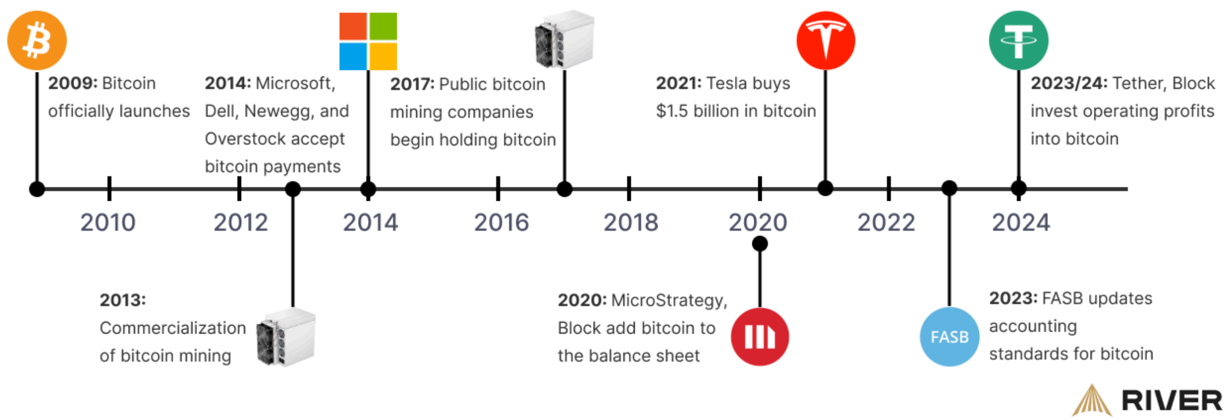
- We showcase eight companies that use Bitcoin as a core part of their strategy, with its role varying depending on each company's size, operational model, and business philosophy. We hope that by providing a spectrum of approaches, readers may have a more complete understanding of business Bitcoin adoption:
    - SummerPlace Homes: A family-owned land developer and home builder
    - Real Bedford F.C.: An English football club
    - Tahini's: A rapidly growing franchise of Middle Eastern restaurants
    - River: A Bitcoin-only financial institution
    - Block: A publicly traded financial services and technology company
    - Students for Liberty: A multi-national 501(c)3 nonprofit student organization
    - Atoms: A privately owned footwear designer and manufacturer
    - Peony Lane Vineyards: A small natural winemaker

- While Bitcoin's primary business use case is as a treasury holding, we detail three areas where bitcoin can serve as a payments solution for businesses:
    - Cross-border bitcoin payments add value for multinational corporations and non-profits who settle international contracts and process remittances.
    - Wages paid in bitcoin are a preferable payment method for many workers, particularly those residing in areas with high inflation and banking fees.
    - Commerce payments in bitcoin have grown in recent years, which can decrease the risk of fraud and reduce fees for merchants. However, the most proven model for using Bitcoin in commerce is catering to the Bitcoin community, which represents a large source of demand.

Table of Contents

1. The Past and Present State of Business Bitcoin Adoption

1.1 A History of Business Bitcoin Adoption



2009-2016: The first corporations to adopt bitcoin were miners, who earn bitcoin for securing the network. The industry was first commercialized in 2013 following the introduction of application-specific integrated circuits (ASICs) for advanced mining operations. Historically, Bitcoin miners have held some of these mining rewards on their balance sheets.

2017-2019: During Bitcoin's bull market of 2017-2018, bitcoin miners became the first publicly traded companies to hold bitcoin on their balance sheets. Today, publicly traded bitcoin mining companies currently have upwards of 50,000 BTC.

During this time, bitcoin's role as a treasury reserve asset first came into the public consciousness. The first few companies outside the mining space began using bitcoin as a treasury asset, including Block.one and Galaxy Digital—both cryptocurrency-related businesses.

2020-2022: A prelude to widespread business bitcoin adoption occurred in 2020 when MicroStrategy, a business intelligence and mobile software company, announced bitcoin as its primary treasury reserve asset. In August of that year, it converted a majority of its treasury—which consisted mainly of cash and cash equivalents—to bitcoin, purchasing 21,454 BTC for $250 million.

Not long after, other businesses followed suit. Square (now Block), a publicly traded payments provider, purchased $50 million in bitcoin in October 2020. Five months later, Tesla announced a bitcoin purchase of $1.5 billion, saying the move would give them "more flexibility to further diversify and maximize returns on our cash that is not required to maintain adequate operating liquidity." Tesla has sold more than half of its original purchase but remains one of the largest bitcoin holders among publicly traded companies.

2023-Present: Beginning in 2023, the strategy of investing a percentage of operating profits into bitcoin began to take hold. In May, Tether—the largest stablecoin provider with over $100 billion in assets—announced such a strategy. More recently in the spring of 2024, Block launched a product to allow millions of merchants to convert a percentage of their daily sales to bitcoin using Cash App, and committed to "investing 10% of its gross profit from bitcoin products into bitcoin."

2023 also marked a significant improvement in the accounting treatment of bitcoin, when the accounting standards-setting body FASB announced updated standards for bitcoin on corporate balance sheets. This topic will be further discussed later in this report.

The "Liftoff" Year for Business Bitcoin Adoption

Although bitcoin's adoption as a treasury asset hasn't yet gone mainstream, its use has rapidly accelerated in 2024. We believe four factors drive this adoption.

Business Bitcoin Adoption: 2020 vs 2024

	January 2020	August 2024
Liquidity	• Market cap as low as $90 billion • Minimal institutional liquidity via OTC desks, futures, & exchanges	• Market cap > $1 trillion • Ample institutional access to liquidity
Regulatory/ Accounting	• Bitcoin's accounting treatment understated corporate treasury values and added complexity	• Bitcoin accounted for at fair value
Institutional Acceptance	• Minimal inclusion of BTC in institutional portfolios • Minimal BTC product offerings by major financial institutions	• 60% of top U.S. hedge funds own BTC via ETFs • Bitcoin offerings by Blackrock, Fidelity, Invesco, and others
Precedent	• 13 public companies held BTC • Aggregate reported bitcoin in treasuries: 34,359	• 52 public companies hold BTC • Aggregate reported bitcoin in treasuries: 683,332

1. 24/7 Liquidity in the Billions

Liquidity refers to the ease with which an asset can be quickly bought or sold in the market without affecting its price. It's important for a business treasury to hold highly liquid assets to ensure they can be quickly converted to cash if needed.

Recently, bitcoin has reached levels of liquidity suitable for institutional and corporate involvement. Before 2018, the daily trading volume of bitcoin rarely exceeded $100 million; today, this number regularly surpasses $10 billion. This year, the amount of buy or sell pressure required to move bitcoin's price by 2% hasn't fallen below $250 million, according to Kaiko.

In 2024, bitcoin's high liquidity makes it a viable treasury asset for businesses of all sizes. Additionally, unlike cash and short-term investments, bitcoin can be bought and sold 24 hours a day, 7 days a week, allowing businesses to make financial decisions outside of regular business hours.

2. Bitcoin Holdings Recognized at Fair Value

Over the past 12 months, U.S. regulators and policymakers appear to have a greater understanding of Bitcoin and a willingness to provide clarity on its treatment from custodial, trading, and accounting perspectives.

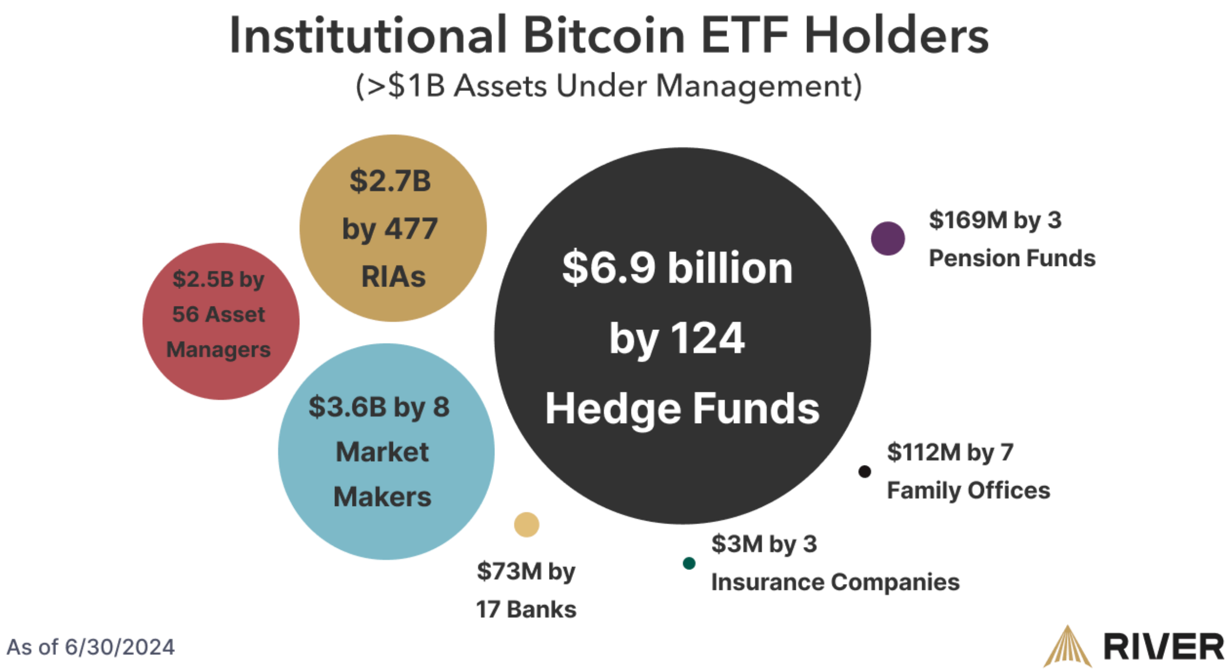
On December 13, 2023, the Financial Accounting Standards Board (FASB), a standard-setting body responsible for the Generally Accepted Accounting Principles (GAAP) within the United States, issued an update allowing companies to recognize bitcoin holdings at fair value. This standard will take effect in December 2024.

Previously, companies had to account for bitcoin under a complex and inefficient standard, requiring them to use bitcoin's lowest observable value within a reporting period. This often led to an underrepresentation of treasury assets and discouraged corporations from holding bitcoin.

With the new and improved standards for bitcoin accounting, corporations that choose to hold bitcoin will no longer be disadvantaged in their financial statements.

3. The Largest Investment Firms Now Offer Bitcoin Products

Mainstream financial institutions such as BlackRock, Fidelity, and Invesco now offer bitcoin products that have lowered the barrier to entry for large institutional investors. Since their launch in January, Bitcoin ETFs have gained over $19 billion in investments from the nation’s largest hedge funds, Registered Investment Advisors (RIAs), insurance companies, and pension funds as of August 2024.



Corporations with exposure to bitcoin typically hold real bitcoin instead of ETFs. Businesses are discouraged from holding ETFs due to their classification as "marketable securities", because they risk being designated as an "investment company" under the 1940 Act if marketable securities comprise over 40% of their total assets. Nonetheless, the launch of Bitcoin ETFs demonstrates a mainstream acceptance of Bitcoin among institutions, making a business bitcoin strategy an increasingly viable option.

4. 15 Years of Precedent

In its 15-year history, bitcoin has been among the best-performing assets with a compound annual growth rate of 61% over the past ten years. Its core value proposition as a digital store of value with a fixed supply sets it apart as a treasury holding. Companies holding bitcoin are better able to preserve capital over time, withstand business downturns, and widen their margins of safety, as will be explained later in this report.

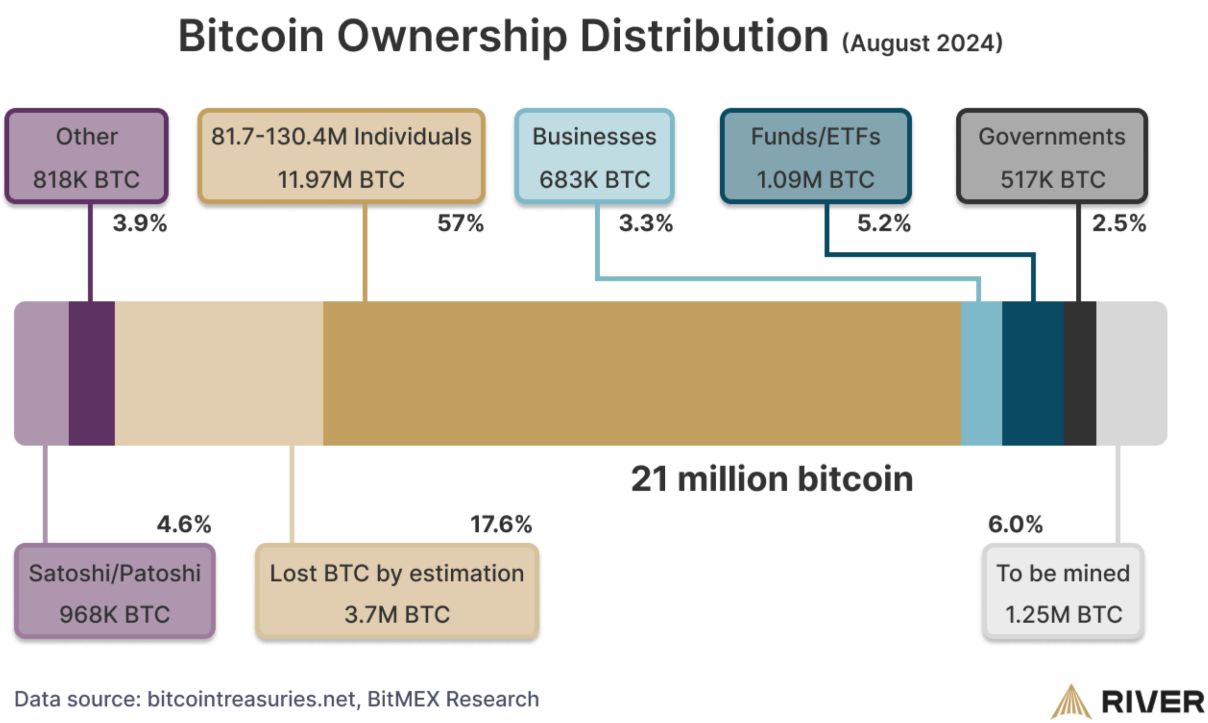
Today, the business use case for bitcoin is far more compelling than it was four years ago when bitcoin was a less mature asset with limited regulatory clarity and fewer established precedents.

1.2 The State of Business Bitcoin Adoption

In this chapter, we cover where business bitcoin adoption stands in 2024 across public data, proprietary data from River, and insights from a survey of River's business clients.

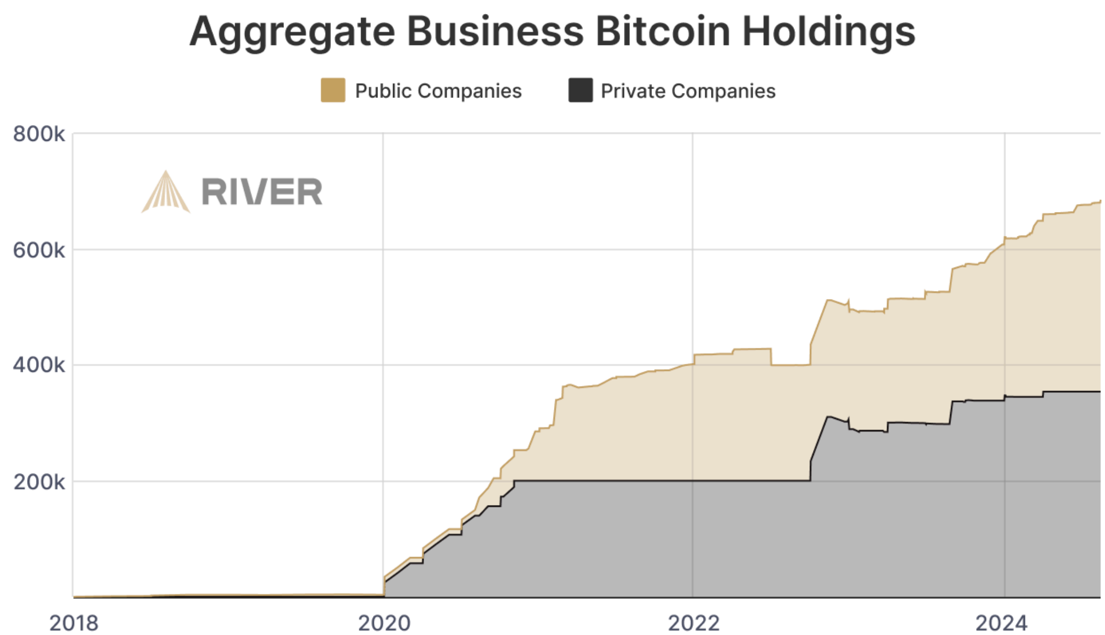
Public Data

As of August 18, 2024, businesses have publicly disclosed holding roughly 683,332 BTC, or 3.3% of Bitcoin's total supply[1]. This number has grown by 587% since June 30th, 2020.



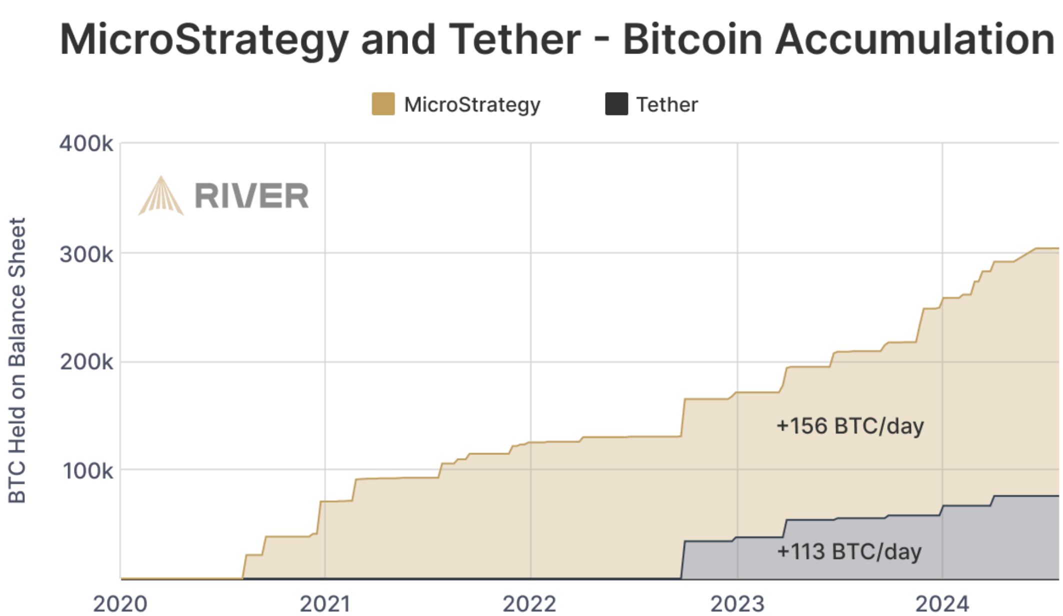
[1]This figure only includes publicly-reported bitcoin holdings, and notably does not include holdings by bankruptcy estates.

Private companies hold roughly 23,000 more BTC than public companies. This figure is understated as private companies are not required to disclose their treasury holdings.



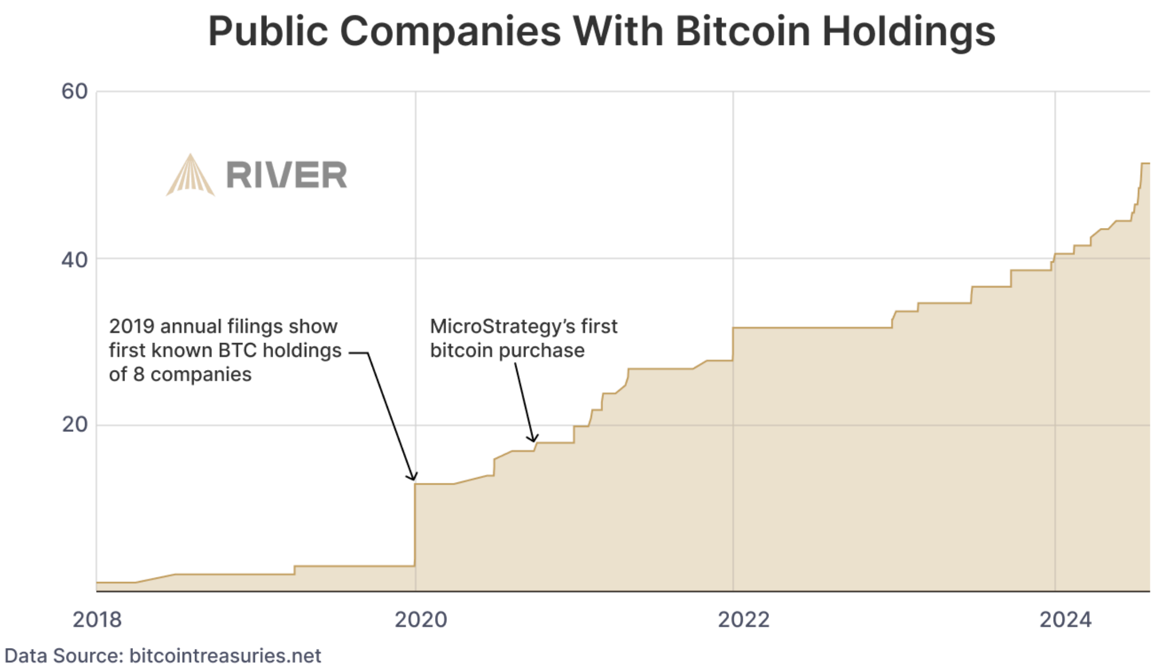
Data Source: bitcointreasuries.net

Notably, business bitcoin ownership is concentrated among the largest holders. Five companies—MicroStrategy, Block.one, Tether, BitMEX, and Xapo—hold a total of 559,000 bitcoin, which accounts for 82% of all business holdings. MicroStrategy and Tether alone make up 85% of all publicly-reported business bitcoin purchases in the first half of 2024. These two companies have collectively purchased an average of 269 bitcoin per day since late 2022.



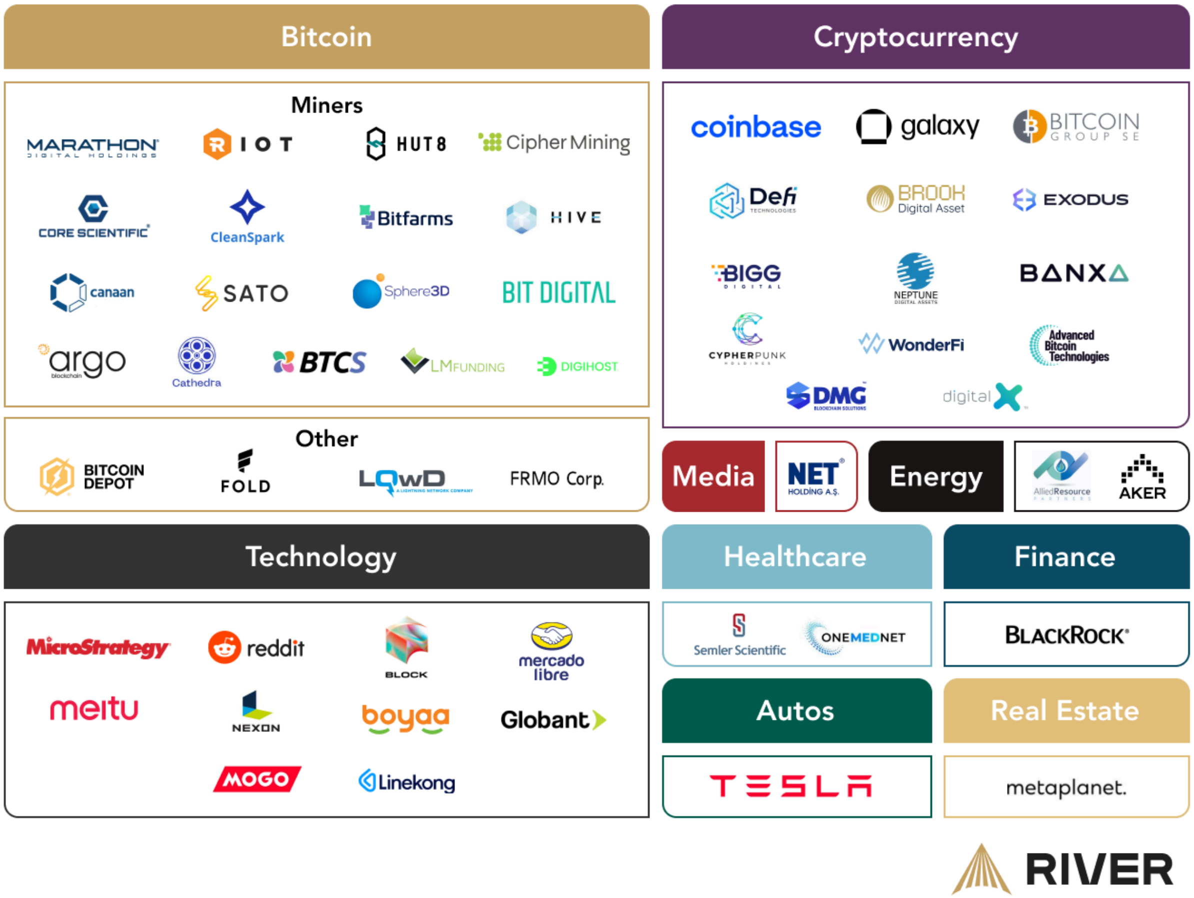
U.S.-domiciled companies account for 49.3% of business bitcoin holdings, totaling approximately $19.7 billion. To put this into context, U.S. businesses hold $6.9 trillion in cash.

The level of bitcoin adoption among publicly traded companies is low, but steadily increasing at a rate of 40% over the past twelve months.



Of the 52 publicly traded companies with bitcoin holdings, 67% have core operations in the bitcoin mining or broader cryptocurrency industry.

Public Companies with Bitcoin Holdings

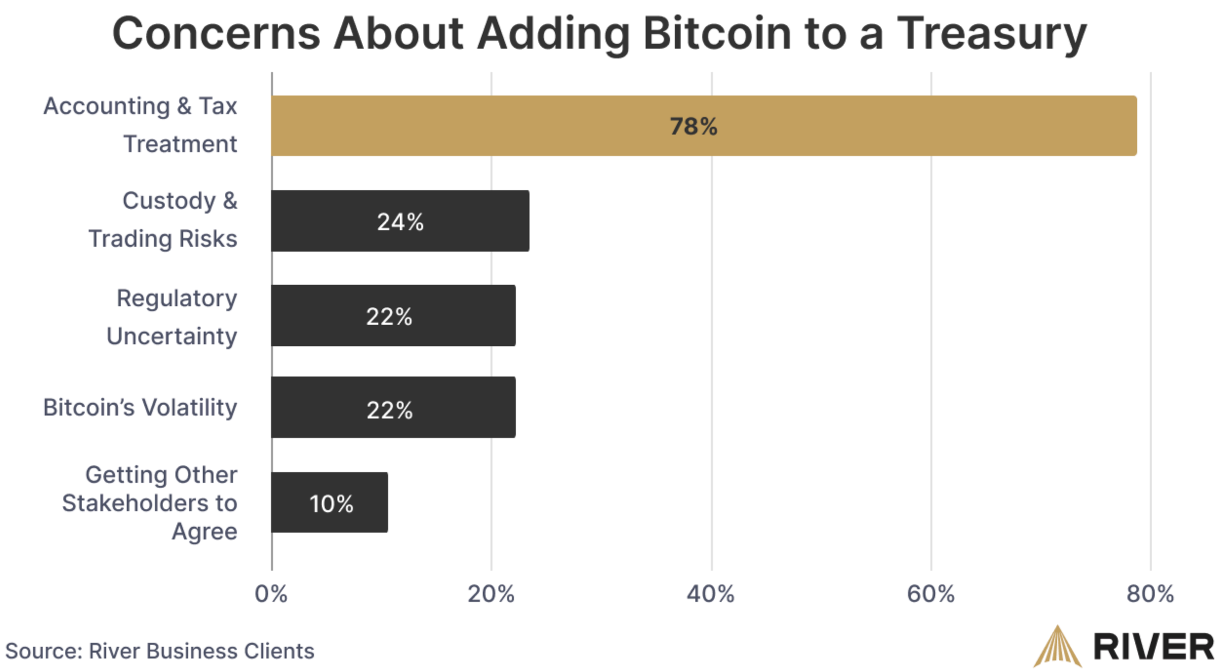


Insights Into Bitcoin Business Adoption on River

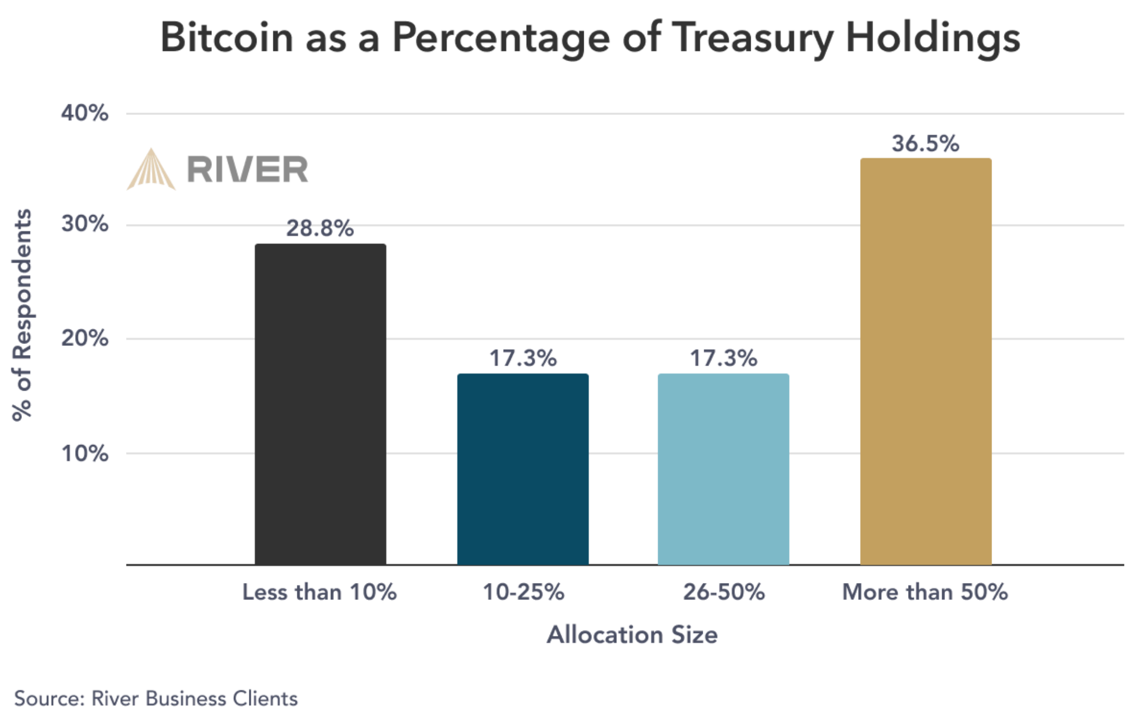
River serves over 1,000 businesses, helping them purchase, sell, and store bitcoin safely and effectively. This position gives us a unique vantage point into the state of bitcoin adoption.

- Since August 2023, the number of businesses on our platform has grown by 68%, more than any other 12-month period since River's founding in 2019.
- 70% of River's business clients have never sold bitcoin.
- The majority of these companies are small and medium enterprises (SMEs) with less than 15 employees.
- For 97% of River's business clients, the decision to add bitcoin to the balance sheet required approval from at most 5 stakeholders.

We surveyed our business clients to better understand their bitcoin strategy. We asked businesses what concerns they had before adding bitcoin to their balance sheet. By a wide margin, the most cited concern was bitcoin's accounting and tax treatment. Given the favorable bitcoin accounting updates going into place in December 2024, we anticipate this area will be of less concern in the future.



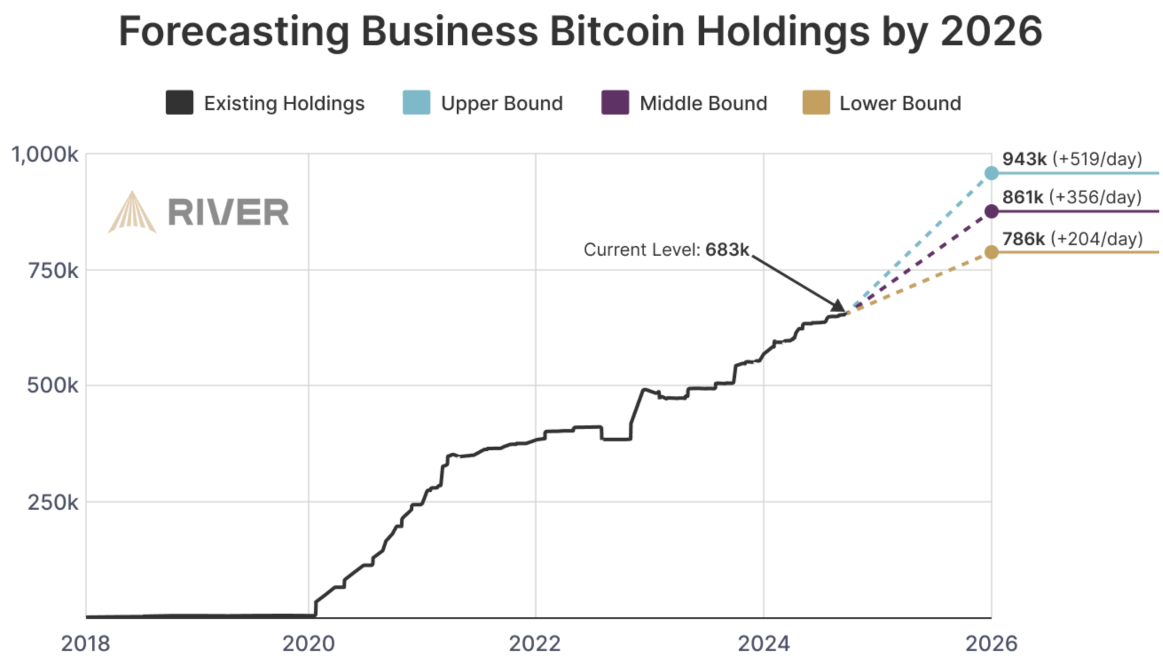
Among River's business clients, allocation sizes to bitcoin vary significantly.



Lastly, when asked about their treasury strategy, 95% of respondents plan on growing the size of their bitcoin holdings in the future.

Where Does Business Adoption Go From Here?

Broadly speaking, the rate of bitcoin adoption is unpredictable in nature. Nonetheless, we forecast cumulative bitcoin holdings by the beginning of 2026 in three ways:



Our methodology:

- **Lower bound:** MicroStrategy, Tether, Coinbase, and Square maintain publicly disclosed strategies for acquiring bitcoin, allowing for a somewhat predictable forecasting of their future holdings. Tether, Coinbase, and Square acquire bitcoin based on a percentage of operating profits; we estimate that their rate of purchases over the last year will remain the same. MicroStrategy primarily acquires bitcoin by raising capital from public investors. We estimate that their rate of purchases until 2026 will be half of that in the first half of 2024. Our lower bound estimation only accounts for these four companies' projected purchases, resulting in a rate of 204 BTC/day, or 37% less than the year-to-date bitcoin purchases by businesses in 2024.
- **Middle bound:** In the first half of 2024, businesses purchased an aggregate of 64,886 bitcoin, amounting to 356 bitcoin per day. Our middle bound estimate extrapolates this rate of purchases until 2026.
- **Upper bound:** In the most optimistic scenario, we estimate that 10% of U.S. companies will convert 1.5% of their cash, or $10.35 billion, to bitcoin over the next 18 months, amounting to aggregate purchases of 315 bitcoin per day. Our upper bound forecast combines this rate of purchases with the forecasted lower bound rate from MicroStrategy, Tether, Coinbase, and Square. In sum, this amounts to purchases of 519 bitcoin per day.

2. Why Business Treasuries Lose Value

Business treasuries often fail to preserve value due to the poor performance of cash and short-term investments. Before we dive into how Bitcoin can improve a business treasury, it helps to first understand why most businesses are losing money on their treasury holdings.

2.1 Businesses Treasuries Prioritize Cash and Highly Liquid Assets

A typical business treasury today consists of cash, cash equivalents, and marketable securities. These assets are highly liquid, meaning they can be converted to cash quickly, and usually maintain a stable value as priced in dollars. For example, money market funds can be converted to cash daily and provide modest, yet stable returns.

Anatomy of a Typical Business Treasury

Cash	Cash Equivalents	Marketable Securities
• US Dollars • Foreign Currencies	• Money Market Funds • Short-Term Treasury Bills • Certificates of Deposit	• U.S. Treasury Securities • Commercial Paper • Corporate, Municipal, & Asset-Backed Securities

Treasury assets are used to meet the operational needs of a business, and ideally generate a return high enough to preserve value over time. As a general rule of thumb, businesses should hold enough cash to meet three to six months of operational expenses, at a minimum. However, businesses of all sizes typically hold treasury assets well above this minimum threshold for a variety of reasons:

- Startups are often in an unprofitable state for years after their inception. To meet expenses, startups maintain a large treasury position for long periods to provide a “runway” to profitability.

- Small and midsize enterprises lack the same access to credit as large companies. As a result, maintaining a large treasury provides a buffer against economic uncertainty.

- Large public companies benefit from sitting on excess cash, allowing them to engage in mergers and acquisitions.

- Tech companies, such as Google and Meta, often derive most of their book value from intellectual property (IP) and invest heavily into research and development. Securing favorable loans based on the value of their IP alone is difficult. Therefore, holding excess cash is often necessary to fund new projects or acquisitions.

- Companies of all sizes may decide to hold on to profits instead of distributing them, which postpones the tax liabilities for shareholders.

Regardless of why businesses end up holding a lot of cash, they all result in the same outcome: a loss in value.

2.2 Common Treasury Assets Consistently Underperform Inflation

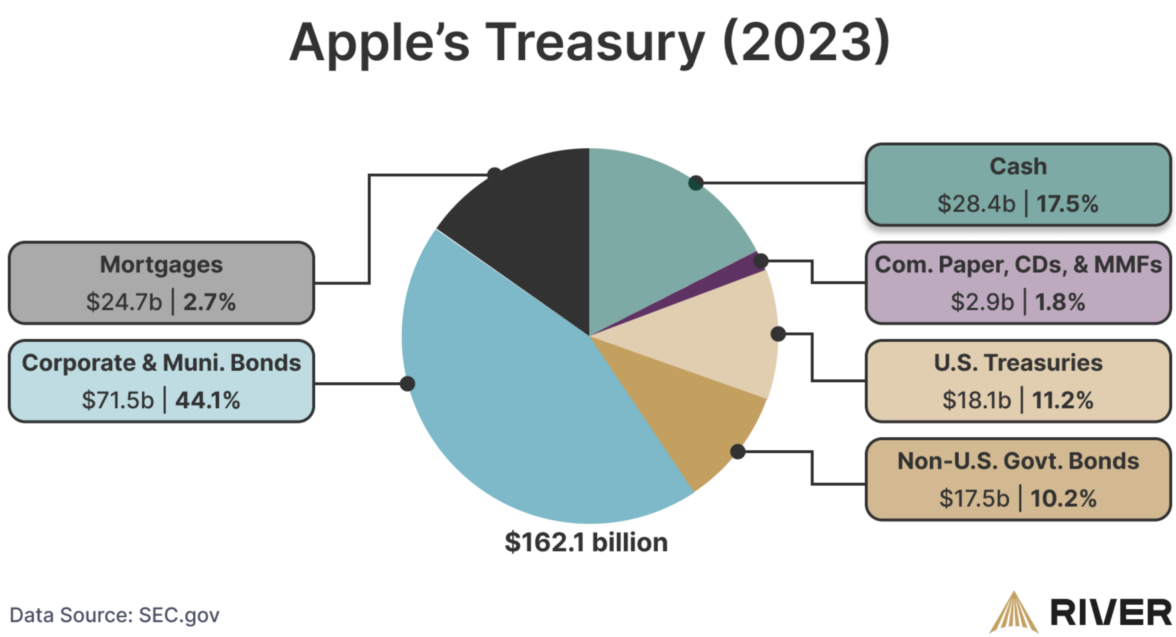
According to Harvard Business Review, U.S. businesses now sit on nearly $7 trillion in cash, 400% higher than in 2000. This represents 20% of their total assets. While a large treasury can benefit a business's flexibility, too much cash often diminishes long-term returns for shareholders.

Businesses expecting to hold a large cash treasury for long periods typically diversify these holdings into other highly liquid, cash-like investments, such as money market funds, treasury bills, and certificates of deposit. These investments can generate modest returns near the federal funds rate (currently over 5%). However, even these short-term investments often fail to outperform the rate of inflation, diminishing the value of a treasury.

Below we cover an example of how Apple's treasury lost billions as a result of holding large cash reserves.

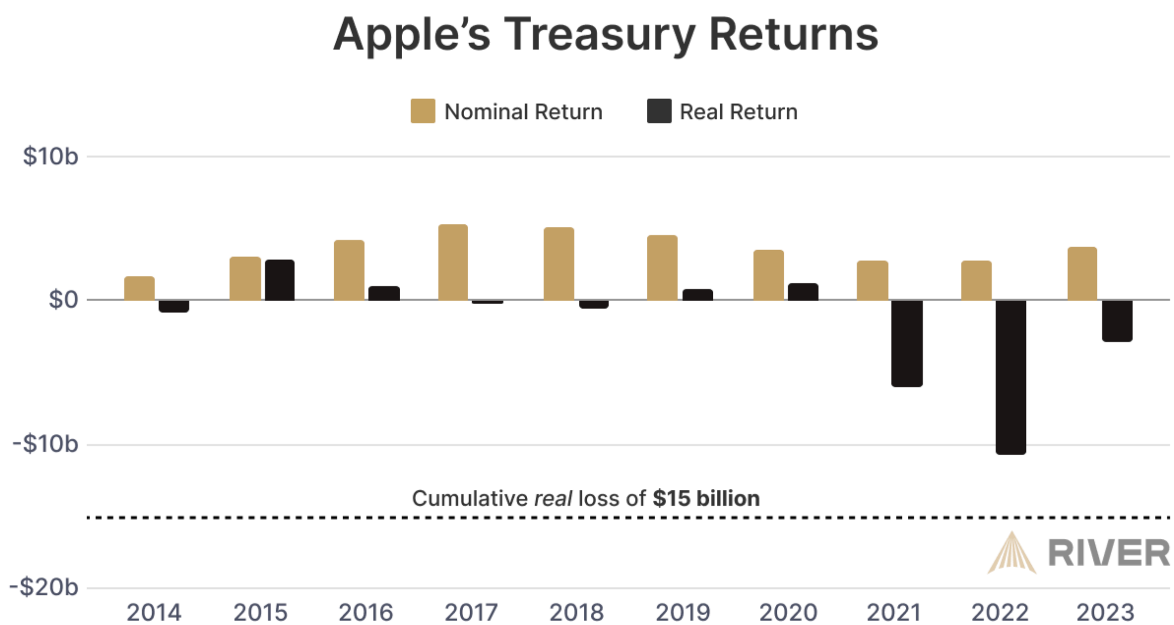
2.3 Apple's Treasury Has Lost $15 Billion in 10 Years

Apple is a notable example of a company that maintains a large treasury, exceeding $150 billion over the past decade. While highly diversified across various securities and foreign currencies, Apple's treasury remains vulnerable to inflation due to the nature of its holdings.



Since 2014, Apple's shareholders have seen enormous returns from the company's operating performance, with share prices increasing by over 1,000%. However, little to none of this value has come from its treasury activities.

Apple has seldom leveraged its balance sheet, spending less than $5 billion on acquisitions over the past decade. During the same period, its treasury lost the company over $15 billion in real terms—or after adjusting for inflation.



Apple's poor treasury performance is not unique—any business maintaining a treasury primarily consisting of cash and short-term securities has performed similarly. Furthermore, distributing too much cash to shareholders via dividends or share buybacks is not a viable solution, as it increases risk for the company during economic downturns.

In an environment where inflation consistently outpaces the rate of return on cash and cash equivalents, businesses can benefit from diversifying into an inflation-resistant asset.

3. How Bitcoin Can Augment a Business Treasury

From a business perspective, bitcoin serves two primary roles in a treasury:

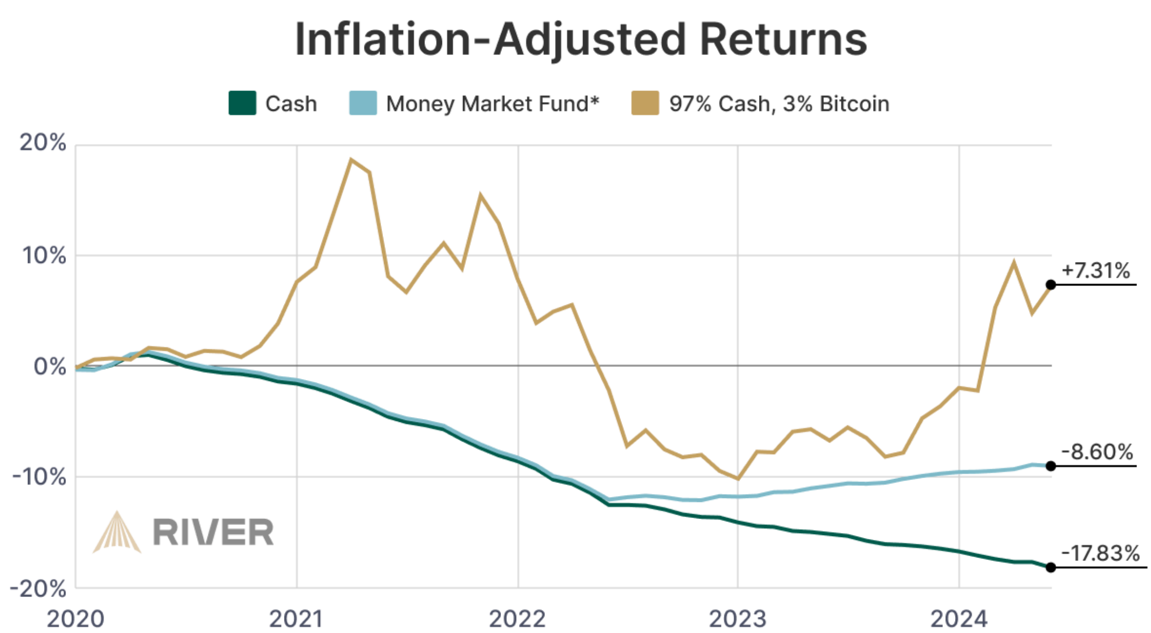
1. To protect against inflation, counterparty risk, and liquidity constraints.
2. To gain a strategic advantage over competitors that do not hold bitcoin.

3.1 Bitcoin Protects Businesses From Risk

One of the most important objectives for a business treasury is risk mitigation. While bitcoin is sometimes perceived as risky due to its volatility, it can help mitigate some risks that apply to businesses.

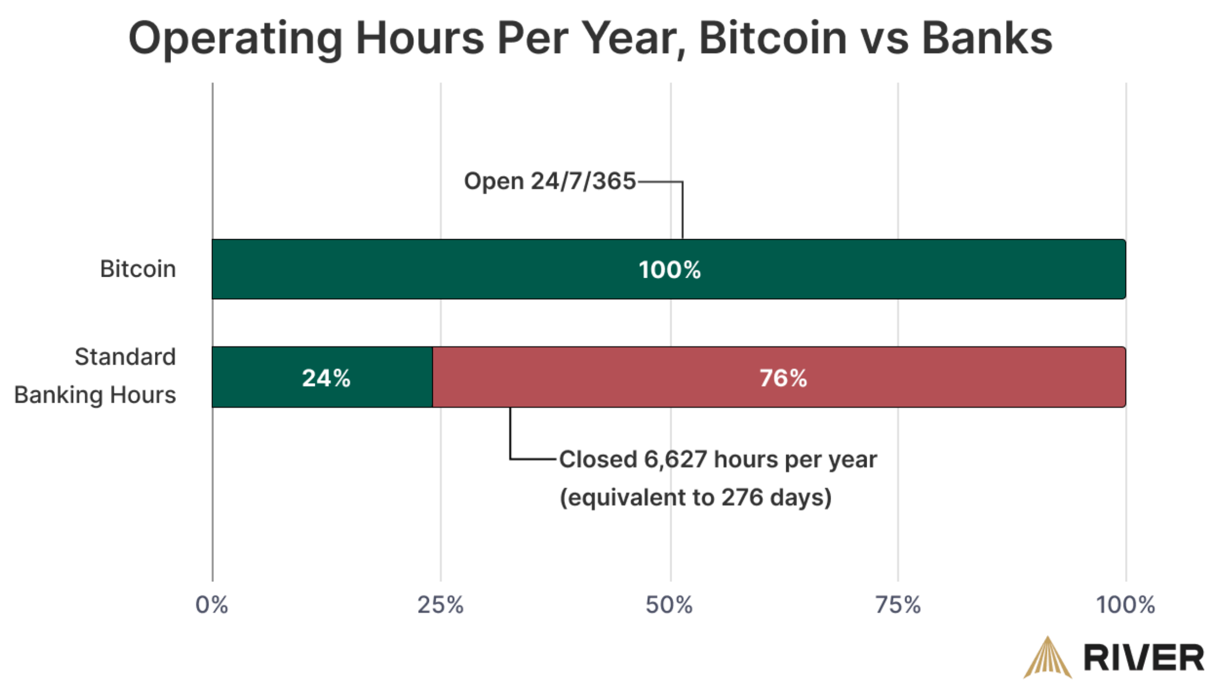
Resistance to Inflation:
Because businesses usually maintain a large cash position, treasurers are at an immediate disadvantage due to the effects of inflation. While bitcoin is not a direct hedge against inflation, it is digitally scarce. Bitcoin has a fixed supply of 21 million coins, making it more scarce than traditional safe-haven assets such as gold and real estate. As a result, bitcoin has historically outperformed the rate of inflation. Common treasury assets such as cash and money market funds do not possess such qualities.

As shown in the chart below, an all-cash treasury supplemented with a 3% allocation to bitcoin would have protected against the inflationary effects since 2020.



*Vanguard Federal Money Market Fund (VMFXX)

24/7/365 Access to Liquidity:
Many businesses have constraints on their cash liquidity. Standard banking hours limit the ability to use dollars during non-business hours, such as weekends. This presents a risk for businesses that rapidly turn over their capital or rely on short-term credit to fund operations. Banks are accessible for less than one-quarter of all hours in a year, while Bitcoin confirms new transactions every 10 minutes, 365 days a year. By holding an allocation to bitcoin, businesses have reliable and immediate access to liquidity whenever the need arises.



Hedge Against Bank-Failures:
Following the multi-day collapse of Silicon Valley Bank in March 2023, corporate treasurers were forced to consider an often-overlooked danger—that counterparties are not always able to pay their bills.

Unlike dollars or other fiat currencies, bitcoin gives treasurers the unique ability to self-custody a portion of their assets. In doing so, businesses can protect themselves from counterparty risk, particularly during periods of financial turmoil or in jurisdictions with high geopolitical risk.

The following page highlights one such company that uses bitcoin to reduce its counterparty risk and diversify its treasury.

Case Study: SummerPlace Homes

Company Story

SummerPlace Homes (SPH) is a land developer and home builder based in Washington state. Founded in 1985, SPH has been family-owned and operated for three generations. The company consistently generates eight-figure annual revenues and employs 12 full-time staff.

Bitcoin Strategy

The home building and land development business is inherently cyclical and capital-intensive. Revenues vary significantly based on both the season and the overall state of the economy. Home building requires large upfront capital expenditures, with revenues typically realized 18-24 months later. To finance these costs, home builders often rely on lines of credit from banks. SPH maintains a high percentage of its liquid capital with banking partners, serving as collateral for these loans.

SPH has survived multiple recessions that severely impacted the homebuilding industry, thanks largely to its conservative approach to growth and treasury management.

While much of SPH's treasury remains in cash-like assets, the company has historically diversified a portion of its treasury into other asset classes uncorrelated with its core business. This strategy has helped them remain resilient through the great financial crisis of 2008 and other periods of weak demand.

In the fall of 2023, SummerPlace decided to move a portion of its excess cash into bitcoin for several reasons:

- Bitcoin's performance is uncorrelated with SPH's business, providing a hedge against cyclical downturns.
- Bitcoin can mitigate the high counterparty risk inherent in the home building industry, where exposure to banking partners is elevated.
- Similar to other stores of value, Bitcoin can serve as a way to pass wealth across generations, which is particularly attractive for family-owned businesses like SPH.

Moving forward, SPH plans to convert a portion of its free cash flows into bitcoin. Under this strategy the company will build up its treasury during cyclical upswings to protect itself from distress during downturns.

3.2 Bitcoin Provides a Strategic Advantage

When performed successfully, a business treasury strikes a balance between risk mitigation and the preservation—or even accumulation—of wealth. While common treasury assets today offer short-term stability, they often erode value over the long term, as shown in the case of Apple. Bitcoin can benefit businesses by both mitigating certain risks and, when properly allocated, preserving value over time.

Even a small (1-5%) allocation of bitcoin in a business treasury plays a significant role in both diversification and combatting the effects of inflation. Over the past 5 years, bitcoin has generated superior returns compared to the S&P 500, gold, and bonds, and is no more risky than the S&P 500 after adjusting for its volatility. This is evident through the Sharpe Ratio, which measures the performance of an asset relative to its volatility.

5 Year Performance

Asset	Annualized Returns	Sharpe Ratio
Bitcoin	43.2%	1.19
S&P 500	13.9%	1.23
Gold	10.3%	0.76
Bonds*	-7.4%	-0.36

*iShares 20+ Year Treasury Bond ETF
Data source: Yahoo Finance

RIVER

Case Study: Real Bedford F.C.

Company Story

Real Bedford is a football club based in Bedford, England, owned by Peter McCormack since 2021. When McCormack acquired Real Bedford, the men's team was in the lowest tier of the English football system. Thanks in part to its Bitcoin strategy, the team has rapidly grown its fanbase and moved from the 10th tier of English football to the 8th tier. Real Bedford's mission is to elevate both its men's and women's teams to the top tiers, which would bring significant economic benefits to the Bedford community.

Bitcoin Strategy

Bitcoin serves multiple purposes for Real Bedford. As the club's primary reserve asset, bitcoin makes up the majority of its treasury, serving as a long-term investment to fund infrastructure projects as the club grows.

Bitcoin is also central to Real Bedford's brand identity. As the first football club to fully embrace Bitcoin, Real Bedford's fanbase now reaches far beyond Bedford, with thousands of global supporters tuning into live-streamed games. As a result, revenues are now diversified beyond ticket sales, which typically only occur during the season. The bulk of Real Bedford's revenues now come from sponsorships from companies within the Bitcoin industry and online merchandise sales. Bitcoin payments now make up more than 10% of the team's revenues.

This strategy has driven record-breaking attendance at Real Bedford games for two consecutive years. Average attendance for the men's team has increased by over 500% between 2021 and 2023. McCormack shares how Bitcoin has improved Real Bedford:

"While Bitcoin has carved out a place within a dedicated niche community, there's a significant opportunity to integrate it into traditional business models, where sound money can accelerate existing success. In the world of football, financial pressures are often overwhelming, with many teams struggling to stay afloat. By positioning Real Bedford as the Bitcoin team, we gained two key advantages:

1. Access to the global Bitcoin community, allowing us to build a dedicated fanbase.
2. The ability to build a Bitcoin treasury, ensuring long-term sustainability.

The project has already seen tremendous success, and we've secured investment from Winklevoss Capital to further strengthen our treasury."

Company Story

Tahini's is a rapidly growing franchise of restaurants serving authentic Middle Eastern cuisine. Founded by Ali and Omar Hamam in 2012, the company now boasts 44 locations across Canada, with plans to expand further across Canada and the United States.

Bitcoin Strategy

The restaurant industry is notorious for thin profit margins, with many businesses failing within a few years. Inflation has hit the industry particularly hard, as the costs of food and labor have risen faster than average inflation since 2020. Despite this, Tahini's remains profitable and continues to expand.

Successful franchise restaurants often rely on more than core-business cash flows. For instance, McDonald's owes much of its success to real estate ownership, now making up 80% of its assets. Inspired by this model, Tahini's has adopted a treasury strategy that invests 100% of its profits into digital real estate in the form of bitcoin.

In August 2020, Tahini's adopted bitcoin as a primary reserve asset, with a high conviction in its ability to preserve value over time. Now, Tahini's keeps six months of cash on hand for payroll and inventory, with the rest held in bitcoin. By purchasing bitcoin at regular intervals, Tahini's has protected itself from bitcoin's volatility, such as the 74% drop in the twelve months following November 2021.

Tahini's bitcoin holdings are self-custodied using a multi-signature wallet, removing counterparty risk with exchanges and reducing the risk of losing funds. Additionally, Tahini's views bitcoin as a long-term investment, believing that any bitcoin position should be held for at least four years before expecting any returns.

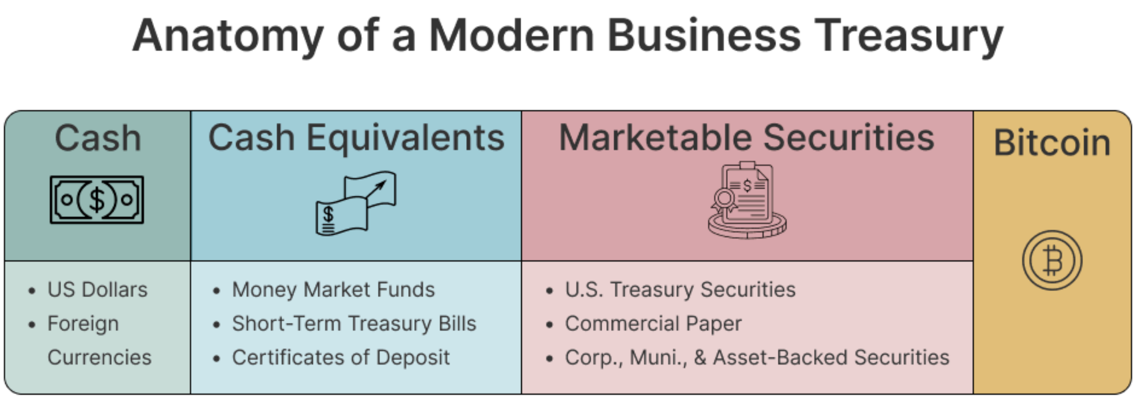
Co-founder Ali Hamam stresses that its bitcoin strategy is not for all businesses, and depends on a company's financial position and conviction in bitcoin. Nonetheless, Tahini's has greatly benefited from bitcoin, allowing it to compound the value of its retained earnings. As Ali explained, **"Business owners and entrepreneurs don't have a pension plan. Bitcoin is our pension plan."**

Image source: The London Free Press

4. Implementing Bitcoin as a Treasury Asset

Most treasury assets today exist within the established financial system: Cash, cash equivalents, and marketable securities can be easily traded and held at most banks. The accounting standards and legal frameworks governing these assets are well-established and widely understood.

In contrast, bitcoin is a relatively new asset operating on a decentralized protocol that runs parallel to our traditional financial system. Its custodial and accounting treatment differ significantly from traditional financial assets, requiring a thorough understanding of Bitcoin's complexities.



Leadership & Governance

Adopting a Bitcoin strategy is a forward-thinking decision. Business leaders who embrace Bitcoin now are positioning their companies at the forefront of financial innovation, potentially gaining a strategic advantage.

However, because Bitcoin is not yet a mainstream component of business strategies, adding it to a business treasury often requires additional governance procedures. Key considerations include:

- **Strategy:** Clearly define the purpose of a bitcoin investment for all company stakeholders. Develop a formalized strategy that addresses the purchase and sale of bitcoin, timeline, and potential impact on the company's financial statements.

- **Internal Alignment:** For large corporations, approval from the company's board is typically required, in addition to agreement from the C-suite.

- **Working groups:** Establish internal teams to define action steps involving trading, accounting, custody, security, authorizations, reporting, regulatory compliance, and potential conflicts of interest.

- **Third-Party Service Providers:** Select vendors to facilitate, at minimum, the trading, custody, and compliance functions of purchasing and storing bitcoin.

Deciding How Much Bitcoin to Put in a Treasury

As with any treasury asset, there is no "one size fits all" strategy for a business's bitcoin allocation. An appropriate bitcoin strategy depends on a business's size, operating model, existing treasury size, and understanding of the asset. We have a more detailed article examining how much bitcoin a business should hold. In summary, Bitcoin treasury strategies can be broadly categorized into four types:

1. **Percentage-Based Allocation:** Under this strategy, a business maintains a bitcoin position equivalent to a certain percentage of its overall treasury. This approach is similar to many institutional investment portfolios, which maintain stable allocations across various asset classes. Given bitcoin's price volatility and changes in a business's treasury size, this strategy requires regular treasury rebalancing.

2. **Cash Flows-Based Allocation:** Some businesses prefer to view bitcoin as a long-term holding not meant to be sold. Investing a predefined amount of operating cash flows or net income into bitcoin is a long-term approach to building a substantial treasury stockpile. Well-known companies using this strategy include Block, Coinbase, and Tether.

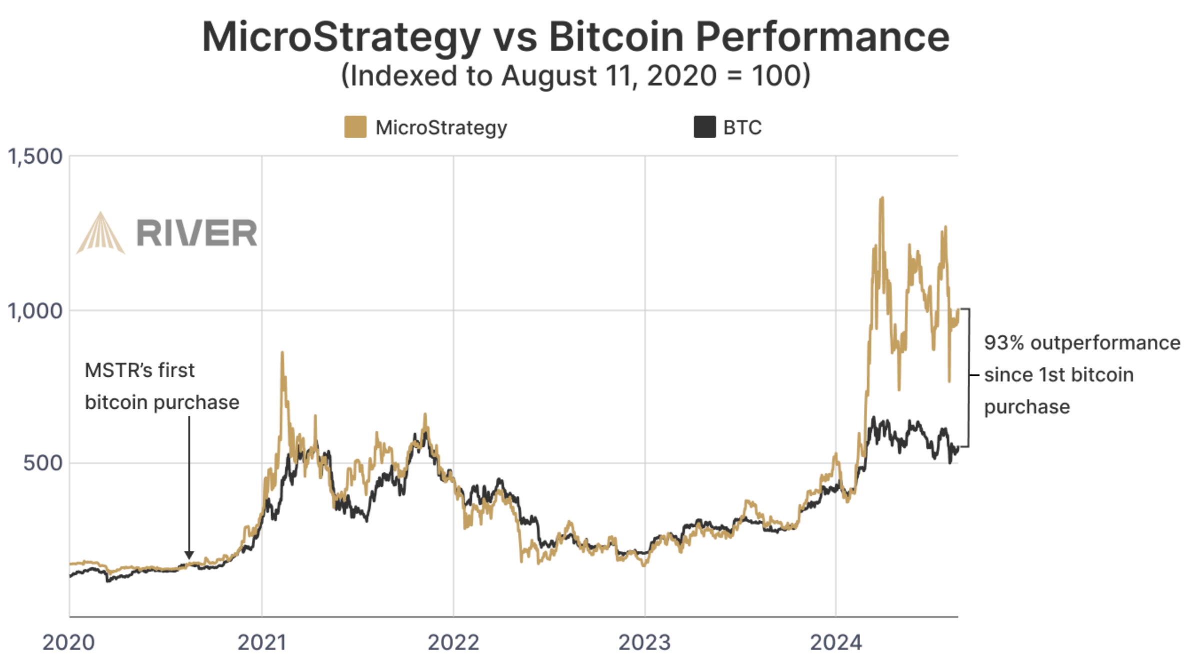
3. **Treasury Buffer:** Businesses planning to maintain excess reserves for an extended period, such as startups, tech companies, and family-owned enterprises, may opt to allocate a portion of their excess cash to bitcoin as a long-term investment. Tesla is a well-known company using this strategy.

4. **Primary Reserve Asset:** Companies with high conviction in bitcoin as a store of value and a long-term time horizon may choose to use bitcoin as a primary reserve asset. This approach usually involves a full allocation of a company's treasury to bitcoin, except for cash needed to meet short-term expenses. While this strategy has been successful for some companies, it requires strong alignment among stakeholders and may lead to the company's success being more dependent on bitcoin's performance than its underlying business model.

MicroStrategy's Bitcoin Playbook

Since its first bitcoin purchase in August 2020, MicroStrategy (ticker: MSTR) is now the most well-known business with a bitcoin treasury strategy. Over the past four years, the company used a strategy of tapping into U.S. capital markets to expand its bitcoin holdings, with methods such as share issuance, convertible note sales, and corporate bond offerings. During this period, MSTR's market capitalization has grown from $1.3 billion to $29 billion, while its share price has risen roughly 900%.

By opportunistically timing its capital raises—capitalizing on low interest rates or high demand for its shares—MicroStrategy has outperformed bitcoin's price by 93% since its initial purchase.



MicroStrategy considers bitcoin as its primary reserve asset, making up 80% of balance sheet assets. Its core business—business intelligence software—provides a steady stream of cash flows allowing the company to service existing debts and grow its treasury.

While MicroStrategy's bitcoin playbook has been highly successful, it may not be easily replicable by other companies. The strategy heavily depends on the liquidity of U.S. capital markets, with reliable funding sources from bond and stock investors. Some companies, such as Japan-based Metaplanet, have adopted similar strategies by leveraging foreign capital markets.

Nonetheless, using bitcoin as a primary reserve asset is a viable option for companies of all sizes. The following page highlights River's story and bitcoin strategy as a startup.

Case Study: River

Company Story

Founded in 2019, River is a Bitcoin-only financial institution committed to empowering the long-term investor. River serves individuals, high-net-worth clients, and businesses. With River, clients can buy and sell bitcoin, transact on-chain or via Lightning, and store their bitcoin with full-reserve, cold storage custody. We are headquartered in Columbus, Ohio with offices in New York City and San Francisco.

As a startup, River has experienced high growth since its founding, helping tens of thousands of individuals and over 1,000 businesses invest in Bitcoin. We have raised $52.7 million across three investment rounds.

Bitcoin Strategy

River has taken a risk-managed, long-term approach to growth, following a few guiding principles:

1. **Maintain a sizeable, diversified treasury with a large bitcoin allocation**
2. **Increase efficiency and keep costs low to weather extended bear markets**

Given the majority of expenses are dollar-denominated, we ensure a minimum of two years of cash on hand. Additionally, we maintain over 50% of our treasury in bitcoin. The rationale behind the decision to hold a substantial allocation of bitcoin is straightforward:

- We deeply believe in bitcoin's potential as an asset in the treasury of any business.
- As a Bitcoin company, the success of River is uniquely tied to the success of Bitcoin. Therefore, adding a large bitcoin allocation to the balance sheet doesn't add an incremental risk to our company performance, so long as we retain sufficient cash reserves.
- Holding large amounts of bitcoin improves the client experience. By holding some of our own bitcoin in hot wallets to handle daily operations, all client assets can be kept safely in cold storage. Additionally, holding bitcoin enables us to run two of the largest nodes on the Lightning Network, enabling fast and low-cost withdrawals for users.

The high performance of our treasury as a result of our bitcoin position has significantly improved our financial position. Moving forward, we plan to continue building our bitcoin position, making additional bitcoin purchases strategically.

Should a Business Buy Real Bitcoin or a Bitcoin ETF

From a legal perspective, real bitcoin is classified as a commodity, whereas ETFs of any kind are classified as a security. Under the Investment Company Act of 1940, businesses that own securities making up more than 40% of their balance sheet assets are regulated as investment companies. For most businesses, being designated as an investment company introduces significant costs and reporting requirements. Therefore, most businesses with bitcoin exposure prefer to hold real bitcoin instead of bitcoin ETFs.

Bitcoin Custody Options for Businesses

Businesses have a variety of options for the custody of bitcoin. Each custody arrangement has trade-offs, such as that between ease-of-use and reducing counterparty risk:

1. **Institutional Custody:** Businesses and institutional investors often prefer outsourcing custody to third parties. Many established firms provide institutional-grade bitcoin custody services. Before choosing a custodian, it's important to thoroughly understand their custody model, security audits (such as SOC-2), and history of any security breaches or fund losses. While outsourcing bitcoin custody to an institutional provider is a relatively safe and established practice, it does come with counterparty risk.

2. **Self-Custody:** Tech-savvy businesses may opt to self-custody their bitcoin holdings. The main risk inherent in self-custody is losing the keys, which can lead to permanent loss of bitcoin. To mitigate this risk, businesses can use strategies such as multi-signature setups to distribute key ownership and remove single points of failure.

3. **Collaborative Custody:** Multisignature custody setups allow for the distribution of key ownership across various entities, mitigating the risks inherent in both fully outsourced and self-custody models. In collaborative custody, a business retains ownership of a controlling share of keys within a multi-signature setup while outsourcing the remaining keys to one or more institutional custodian(s).

4. **Exchange-Traded Funds (ETFs):** Bitcoin ETFs provide businesses exposure to bitcoin's price movement without needing 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.

For readers seeking a more thorough exploration of this topic, we have a dedicated article on our website.

Bitcoin's Accounting Standards for Businesses

From an accounting perspective, bitcoin is classified as an indefinite-lived intangible asset. Bitcoin holdings are accounted for under FASB ASC 350, Intangibles — Goodwill and Other, according to the American Institute of Certified Public Accountants (AICPA).

Historically, bitcoin purchases were initially recorded at cost and subject to losses if the fair value fell below the value previously recorded by a company. Even if the fair value of bitcoin increased, these losses could only be reversed once a sale is made.

In December 2023, the Financial Accounting Standards Board (FASB) updated the accounting standards for bitcoin, allowing companies to recognize their holdings at fair value. This update is effective for all fiscal years beginning after December 15, 2024, but may be adopted earlier for annual and interim financial statements that have not yet been issued. According to FASB:

> "In addition to better reflecting the economics of [bitcoin], measuring [bitcoin] at fair value will likely reduce cost and complexity associated with applying the current cost-less-impairment accounting model for many entities."

For readers seeking a more comprehensive understanding of Bitcoin's accounting treatment, please refer to our article on Bitcoin accounting and taxes for businesses, as well as the following resources:

Publisher	Title	Description	Publication Date
KPMG	Crypto Intangible Assets - Issues In-Depth, Accounting by investment companies	A guide to assist investment companies in accounting for and reporting for 'crypto intangible assets'.	6/2024
AICPA	Accounting for and auditing of Digital Assets practice aid	Guidance on how to account for and audit digital assets	6/5/2024
FASB	Intangibles—Goodwill and Other—Crypto Assets (Subtopic 350-60)	An overview of FASB's amendment to Bitcoin's accounting treatment, now allowing it to be measured at fair value.	12/13/2023

Considering Bitcoin's Risks

Adding bitcoin to a business's balance sheet brings with it a variety of risks that need to be carefully considered:

- **Legal**: Businesses must comply with Money Transmission Laws (MTL) and Anti-Money Laundering (AML) regulations. Failure to adhere to these regulations can result in significant legal penalties, reputational damage, and operational disruptions. While this is less important for businesses simply holding bitcoin, it is important to keep in mind when considering where and how your business will be receiving bitcoin. Blockchain forensic firms are often used by institutional bitcoin holders in complying with these laws.

- **Price:** Bitcoin's volatility can lead to fluctuations in a business's net income, as changes in its value are reflected on a business's earnings. Companies that hold a large amount of bitcoin as a percentage of their balance sheet may see their financial statements more tied to the price of bitcoin than their core business.

- **Potential loss of funds:** Businesses risk losing funds due to security breaches, which can occur through hacking, phishing attacks, or internal fraud. Establishing robust cybersecurity measures, institutional-grade custody arrangements, and proper governance over the control of bitcoin is essential to protect it from unauthorized access and loss.

The following page highlights a company that has successfully integrated bitcoin into its business model at scale:

BLOCK

Case Study: Block

Company Story

Block, formerly known as Square, is a publicly traded financial services and technology company with a market capitalization of $37 billion. Block has a variety of services, including Square, a Point of Sale system that allows more than 200,000 stores in the U.S. to accept credit card payments using a mobile device; and Cash App, a mobile payments application with more than 57 million monthly active users.

Bitcoin Strategy

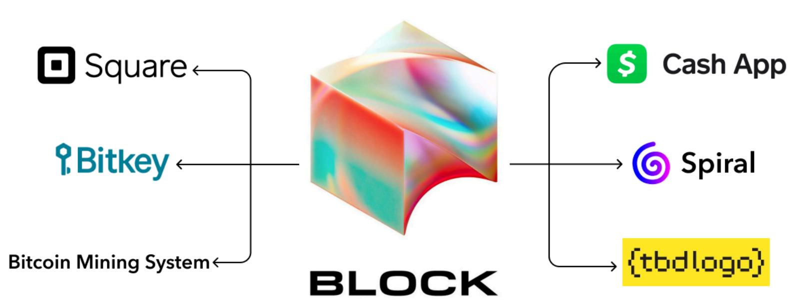
Block has invested significantly in products to advance the Bitcoin ecosystem including:

- Cash App, allowing customers to buy, sell, and withdraw bitcoin
- TBD, an open developer platform focused on making the decentralized financial world accessible for everyone
- Bitcoin hardware projects, including Bitkey, a self-custody bitcoin wallet, and a bitcoin mining system
- Spiral, an independent team focused on contributing to bitcoin open-source work.

Block first acquired bitcoin as a treasury asset in October 2020 with a $50 million investment. More recently, the firm announced a plan to regularly invest 10% of its gross profit from Bitcoin products into bitcoin. At the same time it launched a product to enable all Square vendors to convert a percentage of their revenues into bitcoin. As of Q2’2024, roughly 6% of Block’s treasury is held in bitcoin. According to Block’s Head of Treasury, Allison Rossi, Block’s bitcoin holdings are seen as a “long-term investment” that serves to align the company with its mission and products.

Given the size of Block’s bitcoin position, the company has taken steps to ensure the safety of its holdings. Block takes a self-custody approach to its bitcoin, and maintains insurance policies to protect against theft.

Block’s Bitcoin Ecosystem



5. Bitcoin as a Payments Solution for Businesses

Today, bitcoin primarily serves as a treasury asset for businesses, with limited practical use as a medium of exchange for both businesses and individuals. The low consumer demand for spending bitcoin is driven by the desire to hold it as a store of value, coupled with the fact that spending bitcoin in the U.S. triggers a taxable event.

Additional challenges for bitcoin's use as a medium of exchange include operational frictions associated with converting in and out of bitcoin, inconsistent settlement times, and a limited number of merchants accepting bitcoin as payment. However, Bitcoin's borderless nature, appeal as a form of income, and strong community support have enabled various niche payments use cases where it shines.

As mentioned in River's 2023 Payments Report, using Bitcoin for payments transcends all concerns and hurdles in the following environments:

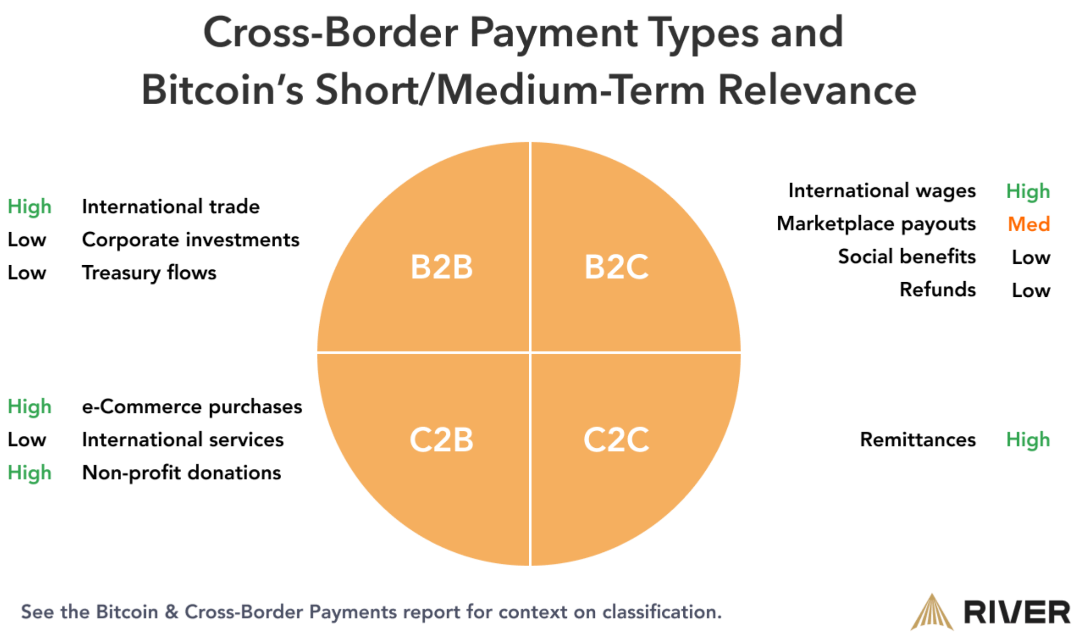
1. When there are no alternatives due to restrictions, costs, or business hours.
2. Dissidents in authoritarian regimes who need money to operate.
3. Capital controls make it difficult for businesses and consumers to maintain their purchasing power or do international business.
4. Fixed exchange rates that make international business unfeasible.

Given this context, Bitcoin has demonstrated practicality as a medium of exchange in the following business scenarios:

Cross Border Payments

By design, Bitcoin does not care about crossing borders, with no differentiation in time or cost based on the number of countries a transaction travels through.

In our 2023 Payments Report, we analyzed various types of cross-border payments and assessed Bitcoin's relevance as a solution for each.



Businesses have found value in niche use cases for cross-border transactions, such as companies paying multinational contracts or processing remittances in bitcoin. Non-profit organizations particularly benefit from Bitcoin's cross-border capabilities, allowing them to reach an international market without being restricted by their payment processor or risk having their funds frozen by a government. For example, the Human Rights Foundation [provides their grants in bitcoin]() out of convenience.

Wages

For many workers, receiving a portion of one's salary in bitcoin is preferable to their local currency. This is largely due to the high inflation rates seen in many parts of the world, as well as banking fees on international wages of around 3-4%. According to NYDIG's Bitcoin Benefits 2022 survey, 36% of employees under 30 are interested in receiving a portion of their pay in bitcoin. The following case study highlights an organization that has embraced this approach.

Case Study: Students For Liberty

Company Story

Students For Liberty (SFL) is the largest international pro-liberty student organization in the world. As a 501(c)3 nonprofit organization, its mission is to educate, develop, and empower the next generation of leaders of liberty. Last year, its volunteers organized 3,801 events and trainings with 229,471 attendees covering topics like free speech, free markets, philosophy, economics, Bitcoin, and more. SFL has a current operating budget of $5.9M and has used bitcoin as part of its operations since 2015.

SFL currently has a staff of roughly 80 individuals. While some of those individuals are U.S.-based employees, the vast majority of its staff are international contractors located all over the world. The list of locations includes Brazil, India, Czech Republic, Nigeria and many more. This creates unique challenges in getting money to these individuals, which is where Bitcoin has provided the biggest value for the organization.

Bitcoin Strategy

A spokesperson for the organization shared:

> "Bitcoin has been a cheaper and faster way to get payments to staff and students to support the mission of the organization.
>
> We process over $60,000 in bitcoin payments every single month. We hold funds in cash at a trusted exchange and only purchase bitcoin when we're ready to release payments. SFL also runs its own node through BTCPay Server and is currently looking at ways to better utilize that node for increased security of our month to month bitcoin activity. As of June 2024, over 40% of our international staff receive their monthly pay via bitcoin. We are also currently working on a system that would allow us to offer reimbursements to our thousands of volunteers via the Lightning network."

For SFL, Bitcoin is important for its business, mission, and vision. Its CEO, Dr. Wolf von Laer, states **"Bitcoin is the single best shot at achieving liberty in our lifetime. Therefore, we both use Bitcoin in the business as well as proliferate Bitcoin and the ideas behind the technology to our audience around the world."**

Commerce

From a business standpoint, accepting bitcoin payments can offer advantages for e-commerce merchants. It decreases the risk of fraud since chargebacks are impossible and reduces the time spent resolving fraud cases. However, consumers have less protection from merchants selling defective products. Instead of incurring high fees from credit card companies, Bitcoin transactions can be handled by a service provider for a fee of 1% or less, allowing merchants the flexibility to either increase their profit margins or lower prices to attract more customers.

Bitcoin-powered e-commerce activity has picked up with the adoption of the Lightning Network, which can improve the payments experience with lower latency and fees. An estimated 11,600 physical stores are accepting bitcoin as of August 2024 on BTCMap.org.

The most proven model for using bitcoin in commerce is tapping into the demand from the Bitcoin community. The Nakamoto Project estimates that 14% of Americans hold bitcoin. Many of these holders are eager to support businesses that accept bitcoin as payment. The following pages highlight two companies that have found success with this approach.

Case Study: Atoms

Company Story

Atoms is a privately owned footwear brand based in Brooklyn, New York, founded in 2018 by Sidra Qasim and Waqas Ali. The company employs around 20 people.

Like many brands, Atoms has to pay for the design and manufacturing of its products in advance, which makes it a capital-intensive business. It maintains a significant balance sheet of both inventory and treasury assets.

Atoms reached a state of profitability in 2023 and now retains all earnings on its balance sheet. This aligns with its venture capital-backed ownership, which typically avoids dividends.

In 2020, Atoms diversified a portion of its treasury, primarily consisting of cash and high-yield savings accounts, into bitcoin. It also began accepting bitcoin payments for shoe sales. In 2021, Atoms launched a Bitcoin-themed shoe.

Bitcoin Strategy

The decision to accept bitcoin as payment has unlocked significant value for Atoms. Instead of converting bitcoin sales into dollars, Atoms has retained its bitcoin-denominated revenues for long-term investment. The company also discovered that accepting bitcoin could boost revenue, with the average order value for bitcoin purchases being more than twice that of dollar-denominated orders.

In the spring of 2023, the collapse of Silicon Valley Bank posed an existential threat to many businesses, including Atoms. With restricted access to liquidity, many of the bank's clients struggled to meet payroll and operating expenses. During this crisis, Atoms considered significantly increasing its bitcoin holdings to mitigate potential liquidity issues.

Moving forward, Atoms plans to implement a cash flow-based allocation strategy for bitcoin purchases, investing a percentage of its net income into bitcoin. Additionally, the company intends to opportunistically purchase bitcoin based on its current business conditions and bitcoin's price.

Case Study: Peony Lane Vineyards

Company Story

Ben Justman is a second-generation winemaker based in western Colorado. His company, Peony Lane Vineyards, started selling wine in 2021 with the mission of bringing natural wine to the U.S.

Peony Lane initially sold its wine locally at farmers' markets and stores. After noticing interest from customers asking if they could buy wine with bitcoin, Ben began accepting bitcoin payments and shifted the business to an online presence.

Bitcoin Strategy

Ben viewed this move as a mark of quality, stating, **"If I'm going to convince someone to sell their bitcoin to buy my product, my product better be damn good."** To cater to the Bitcoin community, Ben created "Satoshi's Reserve," a collection of 210 bottles from the best barrel of the 2021 vintage.

Today, the Bitcoin community comprises a significant portion of Peony Lane's customers. Online sales now account for 75% of Peony Lane's revenue, up from 50% in 2023. Whether paying in bitcoin or U.S. dollars, most of these customers are Bitcoiners.

In addition to accepting bitcoin as payment, Peony Lane has been using Square's Point-of-Sale terminal to convert 1% of revenues into bitcoin for the past three years. This strategy has helped retain and grow the company's earnings, which is especially valuable in the winemaking industry, where it takes 2 to 3 years to see a return on investment after the initial capital outlay on grapes.

Today, Peony Lane is fully transitioning to cater to the Bitcoin community, recognizing that Bitcoiners are willing to pay a premium for products made by pro-Bitcoin companies.

Conclusion

Much attention has been given to the growing adoption of Bitcoin by individuals, investment firms, and large corporations that make headlines with multimillion-dollar bitcoin purchases. Beneath the surface are businesses of all sizes, quietly contributing to an already meaningful subset of bitcoin holders. Businesses today hold over 3% of all bitcoin in circulation, an increase of over 500% in just a few years.

As business adoption continues over the coming years, countless bitcoin strategies will be tested in the global marketplace. For many companies, the risk-reward of implementing even a modest bitcoin strategy points to significant potential value creation. Companies demonstrating successful strategies will become benchmarks for the future business community, gaining a sudden strategic advantage in their respective industries.

Meanwhile, Bitcoin continues to emerge as a core component of our financial system and economy. As individuals increasingly view bitcoin as a form of savings and financial institutions integrate it into their core services, businesses, too, must grapple with the implications of this transformative technology.

River For Businesses

Over 1,000 businesses trust River with their bitcoin strategies. We serve corporations, startups, non-profits, and more, helping them buy and hold bitcoin for their treasuries.

River is SOC-2 certified, with our custody systems built in-house to maximize security for our clients. We maintain all client assets in cold storage in a full-reserve custody model.

If your business is interested in pursuing a Bitcoin strategy, River can get you onboarded in as little as one business day, where you will have a dedicated, U.S.-based Relationship Manager to provide personalized support.

Please visit our business page to get started.

Credits

Report created by: Sam Baker
Review by: Sam Wouters, Alex Leishman, Julia Duzon, Harsh Jhaveri, Dylan Seago, Philip Serrano, Ben Baker
Cover design by: Jason Benjamin

Disclaimer

This report was prepared for informational purposes only and does not represent investment advice of any kind.

River Financial Inc. does not provide tax, legal, investment, or accounting advice, and this report should not be relied on or construed as such. We recommend performing your own analysis and seeking professional advice before making any financial decisions.

Information contained in the report is based on either our own data or external sources we consider to be reliable. We cannot guarantee the accuracy or completeness of all data.

River Financial Inc. shall have no liability whatsoever for any actions taken or decisions made as a consequence of the information in this report, including any expenses, losses, or damages, whether direct or indirect.

RIVER

(888) 801-2586 River.com

NMLS ID#1906809