STACKS LABS · RESEARCH PAPER

THE STACKS OPPORTUNITY · 2026–2031

Growing Bitcoin with Stacks (STX)

The Case for Bitcoin-Native Finance, 2026–2031

1.26M BTC ON PUBLIC BALANCE SHEETS

<1% DEPLOYED AS PRODUCTIVE CAPITAL

THE GAP IS THE THESIS

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ABSTRACT

A research paper on Bitcoin's transition from reserve asset to productive capital, and the infrastructure being built to carry it.

SECTION 01

The Asset Race Is Over

Bitcoin won the question that dominated crypto's first fifteen years: which digital asset matters. The answer arrived through the actions institutions took on their balance sheets, and it shows in clear data.

As of mid-2026, 199 public companies hold over 1.26 million BTC on their balance sheets [1]. Tracked entities, including ETFs, corporations, and funds, collectively hold roughly 18.6% of the entire 21 million supply [2]. In the first quarter of 2026, corporate buyers purchased Bitcoin at 2.8 times the rate miners produced it, per Bitwise data [3]. Spot ETFs made Bitcoin a standard allocation line in traditional brokerage accounts, and the GENIUS Act gave the United States its first federal stablecoin law in July 2025 [4].

The pattern matches how prior reserve assets were absorbed into the global economy: first funds, then corporations, then sovereigns. Bitcoin sits somewhere between the second and third stage, and the direction is set. The view that Bitcoin becomes the neutral reserve asset of the digital economy is no longer a contrarian position. It is the working assumption of the largest asset managers in the world.

That absorption raises a separate question, one that has received far less attention than the asset itself.

SECTION 02

The Capital Markets Race Has Not Started

Every monetary asset of consequence eventually had capital markets built around it, because idle capital consistently loses to productive capital. Gold sat in vaults until vaults issued paper claims, and paper claims became lending markets. Dollars sat in accounts until the eurodollar system turned them into the deepest credit market in history. The sequence repeats across centuries: the asset establishes itself first, and the infrastructure that makes it productive develops afterward, capturing the next phase of value creation.

Bitcoin today is at the beginning of that second phase, the first time the pattern repeats for an asset class that is global and decentralized from the start. Only about 0.8% of all BTC by value is deployed in any decentralized finance context [5]. Alternative networks show what deployment looks like: Ethereum has roughly 30% of its supply working in financial applications; Bitcoin at even a fraction of that ratio would represent hundreds of billions of dollars in deployed capital [6]. a16z Crypto, writing on its own investment in Bitcoin collateral infrastructure, has described idle BTC as the largest source of untapped onchain capital in decentralized finance [7].

Institutional voices have begun framing this as a timeline instead of a possibility. Jason Urban, Galaxy Digital's global head of trading, described the shift toward productive Bitcoin as the next evolution in

the asset's journey, in remarks accompanying the firm's investment in Bitcoin yield infrastructure [8]. Function CEO Thomas Chen was more specific: “By 2026, treating bitcoin as a passive treasury asset may no longer be enough” [9].

The thesis this paper examines: Bitcoin is becoming the one asset the global economy adds to its balance sheet, and the infrastructure that turns idle Bitcoin into productive capital, institutionally and economically, represents the largest unbuilt market in finance. Stacks is one of the networks building that infrastructure, and its position is the subject of the remainder of this document.

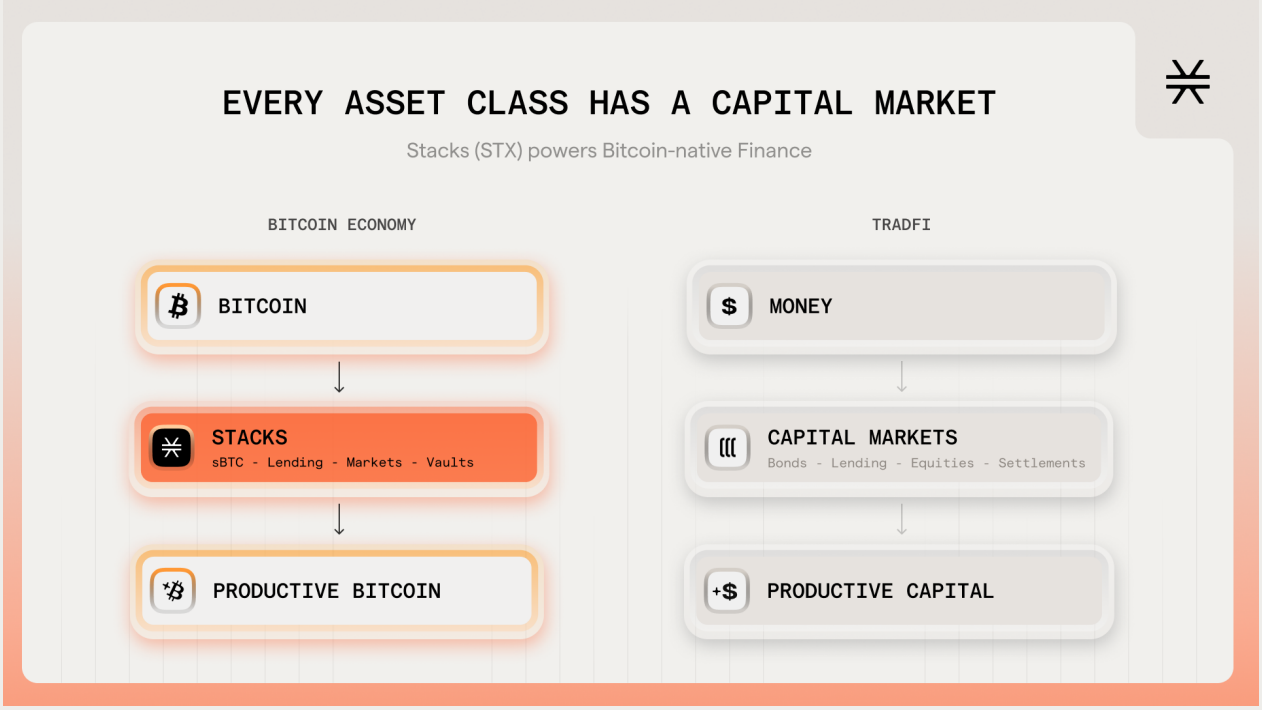

FIGURE 1 · EVERY ASSET CLASS DEVELOPS A CAPITAL MARKET. THE BITCOIN ECONOMY FOLLOWS THE SAME SEQUENCE AS TRADITIONAL FINANCE.

SECTION 03

What Is Stacks

STACKS IN BRIEF

Stacks is a network anchored to Bitcoin as a layer 2. Its blocks settle to Bitcoin through a consensus mechanism called Proof of Transfer, in which miners spend BTC to mine Stacks blocks, so that finalized activity is secured by 100% of Bitcoin's security budget. Its smart contract language, Clarity, reads the Bitcoin state directly, with no oracle or trusted relay in between. Bitcoin moves between the base layer and the network through sBTC, a 1:1 Bitcoin-backed protocol secured by a decentralized set of signers, with no single custodian holding keys. Stacks runs its own blocks every few seconds, enabling fast transactions with BTC and Bitcoin-backed assets in between Bitcoin's roughly 10-minute block intervals.

With the technical brief covered in the box above, a reader evaluating the network's position in a Bitcoin capital market can turn to the track record: five facts, each verifiable onchain or in public filings.

01 **It has paid out real Bitcoin for five years.** Over 4,200 BTC, more than $500 million at current values, has been distributed to participants since January 2021, onchain and verifiable [10].

02 **It is the longest running Bitcoin-settled smart contract network.** Proof of Transfer has run live for over five years at 99.9% uptime, with transactions becoming as irreversible as Bitcoin transactions once confirmed [10].

03 **It moves real BTC without a custodian.** sBTC peaked at over 5,000 BTC deployed this year, and the deposit cap has been fully removed, leaving no ceiling on how much Bitcoin can flow into the network [11].

04 **Institutions can already access it.** Stacks (STX) conducted the first SEC-qualified token offering in the United States under Reg-A [10]. The Grayscale Stacks Trust trades publicly on OTCQB, the 21Shares ETP trades on European exchanges, BitGo provides custody for BTC and sBTC, and Fireblocks supports the network with SOC 2 Type II infrastructure [12].

05 **Bitcoin-native by design.** The network's products inherit Bitcoin's requirements instead of working around them: staking is self-custodial with BTC remaining on L1 under the holder's keys, sBTC's backing is decentralized and verifiable, and positions across the network are denominated in BTC. There is no slashing and no counterparty; the worst case is missed rewards, never lost principal [10].

With the network described, the analysis turns to what a Bitcoin capital market requires and where Stacks sits within each requirement.

SECTION 04

The Functions of a Bitcoin Capital Market

The earlier historical pattern implies a structural claim: for Bitcoin to complete the transition from reserve asset to productive capital, it needs the same set of functions every capital market is built from. These functions reinforce one another. Yield attracts capital, trading prices it, credit multiplies it, settlement moves it, and each function deepens the liquidity available to the others. A market with only one of them stays shallow; a market with all of them compounds.

This section examines each function on its own terms, then describes how it is currently expressed on Stacks.

- **Yield.** Yield is the entry point of any capital market, the mechanism that gives idle capital a reason to move at all. For Bitcoin, the demand side is well documented: Matt Hougan, CIO at Bitwise, noted that “Even a 3% yield on Bitcoin is attractive” given the asset's history as an unproductive holding [5]. On Stacks, yield is expressed through the Bitcoin staking pilot product, which attracted over $100 million in participation since its late 2025 launch, with a full self-custodial Bitcoin staking product in active development [11].
- **Trading.** Price discovery and liquid exchange are what allow capital to enter and exit positions without moving the market against itself. On Stacks, Bitflow operates decentralized BTC and USDC markets, giving Bitcoin a native trading venue that settles to Bitcoin, with no separate chain in between. Bitflow has already processed over $5 billion in cumulative trading volume [18].

- **Credit.** Credit is where capital markets compound, since deposited assets become collateral, collateral becomes loans, and loans finance new economic activity, multiplying the working capital in the system. On Stacks, Zest Protocol runs Bitcoin-native lending and borrowing, reaching $41 million in TVL within two days of its V2 launch and holding $75.9 million as of the Q1 2026 snapshot [11].
- **Structured products.** Mature markets package strategies into instruments that allocators can hold without managing the underlying positions; in traditional finance, structured product desks manage trillions on this model. On Stacks, Hermetica's vaults package Bitcoin yield strategies into single products [11].
- **Payments.** Payments turn an asset from a position into money. A capital market whose asset cannot circulate remains only an investment vehicle. On Stacks, sBTC makes Bitcoin spendable in seconds instead of ten-minute intervals, with Leather as the consumer-facing wallet [10].
- **Dollar settlement.** Every functioning capital market carries a cash leg, since trades, loans, and invoices settle against a stable unit of account. On Stacks, Circle's USDC is live natively, and Stacks is the only Bitcoin layer in Circle's xReserve program, placing regulated dollars directly alongside BTC [12].
- **Autonomous agents.** A newer function, specific to this cycle of technology: software agents acting as economic actors need programmable money and rails they can transact on without human intervention, and Bitcoin is the asset such agents are most likely to hold. On Stacks, AIBTC brings BTC-denominated payments to AI agents operating onchain [11].

Privacy is the newest workstream on this list, with a recently approved grant funding confidential transaction research. Institutional participants require confidentiality for positions and flows, and this work extends the same rails to capital that cannot operate in full public view.

There is not a single function that carries a Bitcoin capital market thesis on its own. The observation is that the full set is being assembled in one place, on Bitcoin settlement, and that each function that matures increases the value of the others. Where those functions must live to count as Bitcoin-native is the subject of the next section.

SECTION 05

The Parameters of a Bitcoin-Native Capital Market

The functions above can be built on any programmable network, and several were, during the first wave of Bitcoin DeFi. What determines where Bitcoin's capital markets ultimately settle is a second test: whether the market is Bitcoin-native, where native means of Bitcoin: the asset is real BTC, the activity settles on Bitcoin, the security comes from Bitcoin, and the system respects Bitcoin's self-custody ethos. Four parameters make that testable.

01 SECURITY

The activity settles on Bitcoin and inherits its hash power, with no reliance on a separate validator set. On Stacks, every transaction settles on Bitcoin through Proof of Transfer, so reversing one would require reorging Bitcoin itself.

02 TRUST MINIMIZATION

Self-custody is the default and backing is verifiable. On Stacks, sBTC's underlying BTC is held 1:1 by a decentralized signer set, and Clarity contracts are verifiable before they execute.

03 USER EXPERIENCE

Speed and cost match modern chains, and BTC moves natively. Stacks blocks confirm in seconds, and assets can move through a Bitcoin L1 transaction directly.

04 BITCOIN DENOMINATION

Positions and yield are measured in BTC. Bitcoin in, Bitcoin out: staking yield, vault returns, and lending income on Stacks are all paid in BTC terms.

These four parameters form the moat, because while the functions of a capital market can be replicated on any chain, the parameters cannot; they depend on settlement to Bitcoin itself. A market that meets all four is one that Bitcoin holders and institutions can enter without changing what they hold or how they hold it. Whether that market forms now or later is the timing question, which the next section examines.

SECTION 06

Why Now: Five Signals

This section examines the signals suggesting the market segment is forming now instead of at some indefinite future point. Each is independently checkable, and readers can weigh them on their own terms.

01 **Bitcoin changed hands, permanently.** The marginal holder of BTC is now a balance sheet instead of an individual wallet. Public companies, ETFs, and funds absorbed multiples of new supply through 2025 and 2026, and tracked entities now hold nearly a fifth of all Bitcoin that will ever exist [2][3]. Balance sheets carry fiduciary duties, and fiduciary duties historically push assets toward productive deployment.

02 **Passive holding stopped paying, visibly, this year.** Through 2024 and 2025, Bitcoin treasury companies could trade above the value of their coins, issue shares at the premium, and buy more BTC. By mid-2026 that premium had compressed across nearly the entire sector, with Strategy's multiple falling from a peak near 3 to 4x to roughly 1.16x [1]. Sector analysts now describe a "Treasury 2.0" phase of active balance sheet management, in which holding Bitcoin is table stakes and generating yield on it becomes the differentiator [13]. Hundreds of public companies now face this pressure.

03 **The productive share of Bitcoin remains below one percent.** The gap between Bitcoin's monetary weight and its financial utilization is among the largest such gaps in any asset class [5][6]. The first wave of Bitcoin DeFi, built by porting Ethereum systems onto Bitcoin infrastructure, contracted sharply through 2025, and the contraction clarified the segment more than it closed it. Institutions and holders proved willing to bridge BTC but unwilling to deploy it: capital parked in networks that did not feel Bitcoin-native enough to trust with productive use, applications on top went untouched, and locked value without usage or revenue proved unsustainable once the incentive subsidies ended [14]. The lesson is about deployment, and Bitcoin's capital markets will form where holders trust the rails enough to put BTC to work, which is what the parameters in section five describe.

04 **The plumbing is finished, on both sides.** In 2021, an institution convinced of this thesis had no compliant way to act on it. In 2026, the stablecoin law is signed [4], custody is institutional-grade, regulated wrappers exist through Grayscale and 21Shares [12], USDC settles natively on Stacks [12], and the network's deposit cap and capacity ceilings have been removed, with the SIP-034 upgrade delivering up to 30x more throughput as reported by The Block [11]. The historical blockers between institutional capital and Bitcoin-native finance have been dismantled.

05 **The next expansion window points to 2027–2028.** Analyst views on Bitcoin's cycle currently split into two camps. Bernstein's Gautam Chhugani argues the four-year cycle has ended, replaced by a longer institutional accumulation pattern extending into 2027 [15]. The traditional camp points to the next halving, projected for 2028 [16]. Standard Chartered's research holds that the structural drivers (institutional infrastructure, ETF adoption, supply dynamics) remain intact through the current consolidation, maintaining its long-term outlook with a revised horizon of 2030 [17], and post-ETF drawdowns have compressed from the historical 70 to 85% range to roughly 30 to 40% [15]. Both camps place the next major capital inflow within roughly 12 to 24 months. Infrastructure that is live, audited, and integrated before that inflow arrives is positioned to receive it.

SECTION 07

2026–2031: How Bitcoin-Native Finance Plays Out

The following is a scenario, presented as the milestones a reader can measure the network against over the coming five years.

> **Phase one, 2026 to 2027: capital onboarding.** The foundation phase centers on moving idle BTC onto productive rails. Self-custodial Bitcoin staking ships as the flagship yield primitive. sBTC, freed of its deposit cap, absorbs Bitcoin from treasuries and funds that need auditable deployment without a single custodian, with institutional treasury onboarding expanding through the second half of 2026. The first Bitcoin treasury companies begin reporting yield on their BTC positions the way they report interest on cash. The measure of this phase is deployed BTC growing by a multiple, into the billions of dollars.

> **Phase two, 2028 to 2029: credit and depth.** With capital onboard, the market deepens. Bitcoin-native lending grows from tens of millions into the billions as BTC becomes standard collateral. Structured products mature into instruments institutional desks can allocate to. If the traditional cycle holds, the 2028 halving resets supply dynamics as the credit infrastructure reaches scale. In this phase, Bitcoin's productive share climbs from below 1% toward the low single digits, with each percentage point representing tens of billions in newly deployed capital.

> **Phase three, 2030 to 2031: default rails.** In the mature phase, Bitcoin-native finance stops being a category and becomes an assumption. BTC functions as productive collateral across the economy: staked for yield, borrowed against for liquidity, spent through payment rails, and held by autonomous agents transacting without human intervention. The question “where does Bitcoin earn” acquires a default answer, in the way “where do dollars clear” has one.

Each phase in this scenario funds the one that follows: yield attracts the capital that credit multiplies, and credit creates the activity that makes the rails indispensable. The sequencing matters less than the direction, and the direction follows the same force that carried Bitcoin itself: capital flows to where it is treated best.

SECTION 08

The STX Position

STX is the native asset powering the rails described above, and its relationship to the thesis runs through two measurable channels.

The first channel is staking capacity. BTC staked for yield consumes STX as staking capacity, tying STX demand directly to the volume of Bitcoin seeking productive deployment. The second channel is network activity. Every function described in this paper, from trading to credit to agent payments, generates economic activity on the network, and activity generates fees. Growth in productive Bitcoin drives demand for STX through both channels simultaneously.

FIGURE 2 · STACKS POWERS BITCOIN-NATIVE FINANCE. IDLE BITCOIN FLOWS INTO STAKING, sBTC, STABLECOINS, CREDIT, AND VAULT PRODUCTS.

An STX position functions as an option on the buildout of Bitcoin-native finance as a whole. If yield leads adoption, staking capacity carries the demand. If credit, payments, or agent activity leads instead, network activity carries it. A holder does not need to predict which function reaches scale first. The assessment reduces to two questions: whether Bitcoin is an idle store of value or an economic good to be made productive within the economy, and whether Stacks is the venue where that production takes place.

On the second question, the network's history is the evidence: five years of Bitcoin settlement and over $500 million in BTC distributed [10] place Stacks' record of Bitcoin-native innovation at the front of the trend it was built for.

SECTION 09

What Would Falsify This

The thesis fails if Bitcoin stops absorbing capital: if the institutional adoption curve of the past three years reverses and BTC returns to being a retail speculation. It fails if Bitcoin holders permanently decline productive deployment, keeping the productive share below 1% indefinitely despite available yield. And it fails if Bitcoin's capital markets form somewhere else entirely, on rails that capture the institutional flows described here.

The thesis also fails if the infrastructure stops evolving with what the economy asks of Bitcoin. The requirements of 2027 will not be those of 2026; confidentiality and agent-driven activity are already visible on that path, and rails that do not absorb each new requirement lose flows to rails that do.

The thesis does not fail if any single product stalls. A staking product iterating, a lending protocol pivoting, or an application finding fit slower than expected are the normal texture of an infrastructure buildout, and the network is assembling seven functions precisely so that no single one determines the outcome. The 2025 contraction in Bitcoin DeFi already sorted the field once, separating emission-subsidized approaches from those built on Bitcoin settlement, and the surviving architecture is the one described in this paper [14].

For a reader tracking the thesis over time, three numbers summarize it: the share of Bitcoin held by institutions, the share of Bitcoin deployed productively, and the share of that deployment settling on Bitcoin through Stacks. The thesis predicts all three rise together, and each is publicly observable.

Bitcoin spent fifteen years earning its place on the world's balance sheet. The next five years determine where that Bitcoin is deployed. The record of that transition will be onchain, verifiable by anyone, as it should be for the asset that made verification the point.

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