THE LONG WINTER

Bitcoin, Avalanche, and the Next Form of the Validator

A strategic proposal for Bitcoin Security Participation (BSP)

RELIC

Independent strategic proposal • August 2026

To the Avalanche Foundation

This is not a request for a grant to write another paper. It is a request for a chance to build the thing the paper describes.

On July 30, 2026, the Avalanche Foundation publicly described the connection between ecosystem output and AVAX value accrual as the “central problem” it is working on. [2] I believe part of the answer is already sitting inside the validator set.

Avalanche currently reports 201.9 million AVAX of validator stake, 247.6 million AVAX of total stake, 1,724 staking validators, and a headline staking APY of 6.7%. [1] At an AVAX market price around $6.5, validator self-stake alone implies roughly $88 million of annualized reward value at today’s snapshot. That is not dormant capital. It is an economic stream attached to persistent, identifiable security infrastructure.

My proposal is to turn a bounded portion of that stream into Bitcoin Security Participation: a principal-protected facility that lets Avalanche validators finance Bitcoin hashpower, miner credit, ASICs, power contracts, and future Bitcoin-security markets through deterministic risk limits and competitive autonomous strategy agents.

> **Bitcoin does not need Avalanche. That is precisely why Avalanche should make itself useful to Bitcoin.**

I am asking you to bring me into the room. Put me beside the economics team, P-Chain and AvalancheGo engineers, validator operators, mining-market specialists, and counsel. Give this thesis ninety days of hostile review. Try to kill it. If it survives, give it a Fuji pilot. If the pilot survives, turn it into an ACP and make Avalanche the first major proof-of-stake network with a native economic position inside Bitcoin security.

I do not want this to become a clever PDF that disappears into a folder. I want to help make it real.

— Relic

THE ASK

Create a Foundation/Ava Labs working group for Bitcoin Security Participation and bring Relic on as a paid strategic contributor or research lead for the workstream, with a mandate to falsify, prototype, and—if it survives—ship the mechanism.

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Executive Summary

If Avalanche intends to ride the next major Bitcoin wave, it should already have a vehicle in the water.

The Long Winter proposes that Avalanche expand the economic meaning of validation. AVAX already secures Avalanche. The proposal is not to invent a new arbitrary token utility; it is to make that native utility more productive.

- AVAX principal remains sacred. Validator and delegator principal are never pledged, rehypothecated, or exposed to BSP liquidation.
- BSP begins treasury-funded. Seed operating capital purchases Bitcoin-directed work directly; externally earned BTC accumulates inside a protocol-owned reserve.
- Participating validators may commit a defined share of future settled AVAX rewards to a native bAVAX bond market. bAVAX is issued only against haircutted, measurable AVAX receivables.
- The treasury retains a spread of settled AVAX and returns that surplus to validation, creating Protocol-Owned Validation while BTC becomes the hard external reserve.
- Only after the BTC reserve has a production history may BSP use tightly capped, low-LTV credit against treasury-owned BTC. Staked AVAX is never collateral.
- Autonomous agents search markets; deterministic protocol rules control risk. AI proposes. It never controls principal or overrides reserve-coverage limits.
- ACP-236 introduces cycle-based reward settlement and configurable auto-compounding on Fuji; ACP-77 demonstrates programmable validator-management logic for Avalanche L1s. [3][4]
- The first version should be voluntary, tiny, auditable, and completely outside consensus. Mandatory capability should be considered only after years of production evidence.

The two security economies already exist. BSP connects them.

201.89	**247.62**	**6.70**
M AVAX	M AVAX	%
Validator stake	Total stake	Headline staking APY
88.46	**929.16**	**32.58**
$M / yr	EH/s	$/PH/day
Validator reward value	Bitcoin 7D hashrate	Bitcoin spot hashprice

Current network snapshots used to anchor the proposal. Values are sourced and dated in References.

THE CORE ECONOMIC LOOP

Seed capital -> Bitcoin security work -> BTC Treasury -> bAVAX bonds on validator reward streams -> protocol-owned AVAX -> validation -> more economic capacity -> more Bitcoin security.

1. The Long Winter

Crypto has spent most of its existence preparing for summer. More users. More liquidity. Higher asset prices. More narratives. More capital arriving tomorrow than existed yesterday. Almost every token economy looks healthier when the market is expanding.

Then winter comes. Incentives become expenses. Treasuries shrink in dollar terms. Mercenary liquidity leaves. Yield paid in the same token that created the yield is revealed for what it is. Networks are forced to answer a simple question: what does this system produce when speculation is not enough?

The next decade will be less forgiving. There will be many fast chains, many cheap chains, and many environments capable of running smart contracts. Execution performance will matter, but it will not be sufficient. The networks that endure will increasingly be distinguished by economic structure: external revenue, owned liquidity, durable validator incentives, resilient balance sheets, and the ability to deploy capital productively through a long winter.

Avalanche should prepare now—not because it lacks technology or use cases, but because its native economic machinery can be made substantially more powerful than it is today.

2. The Holy Grail Is Already Here

The ecosystem has spent years searching for better AVAX value accrual: more transaction demand, more L1 activity, more burns, more DeFi, more institutional usage, more applications. These can all matter. The Foundation's own 2026 research agenda explicitly frames value capture, validator economics, and capital allocation as unresolved parts of the AVAX value-accrual problem. [2]

The answer does not have to be another artificial use case. AVAX already has a profound one: it is the security capital that gives Avalanche economic weight.

The holy grail was not another use case. It was making the native one powerful enough.

Every AVAX reward that returns to validation can increase validator weight under the auto-compounding design introduced by ACP-236. [3] If validation is given an additional productive capability, compounding AVAX becomes more than token compounding. It becomes compounding productive security.

That is the opening: AVAX remains what it already is, but validation is allowed to reach outside Avalanche for useful work and external revenue.

3. Bitcoin Got Through

Bitcoin occupies a unique position in crypto because its history cannot be reproduced by better code or larger financing. It survived as an open proof-of-work network long enough to accumulate hardware, energy infrastructure, miners, pools, liquidity, political relevance, and a monetary gravity that every other crypto network must account for.

Most chains respond by bringing representations of BTC inward. That is useful asset interoperability, but it is not security interoperability. A bridged Bitcoin token does not finance a miner, add SHA-256 demand, diversify a pool, or cause an Avalanche validator to contribute to the physical security economy of Bitcoin.

The strategic inversion is simple: stop asking only how Bitcoin comes to Avalanche. Ask how Avalanche can become economically useful to Bitcoin.

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4. The Empty Validator

A proof-of-stake validator is a persistent identity backed by capital, uptime history, revenue, delegation relationships, and continuously operating infrastructure. We have built economically identifiable security institutions and then asked them to do almost nothing beyond consensus.

Consensus is the first duty. It should remain inviolable. But the economic output surrounding consensus can do more.

> **Avalanche validators should be the Abrams tanks of the network: hardened, capitalized, persistent infrastructure capable of projecting economic security beyond the immediate perimeter.**

That does not mean using validator CPUs to mine Bitcoin. Modern Bitcoin mining is an ASIC and energy business. The opportunity is capital allocation. A bounded share of settled validator economics can finance the physical search for Bitcoin without placing the AVAX security bond at risk.

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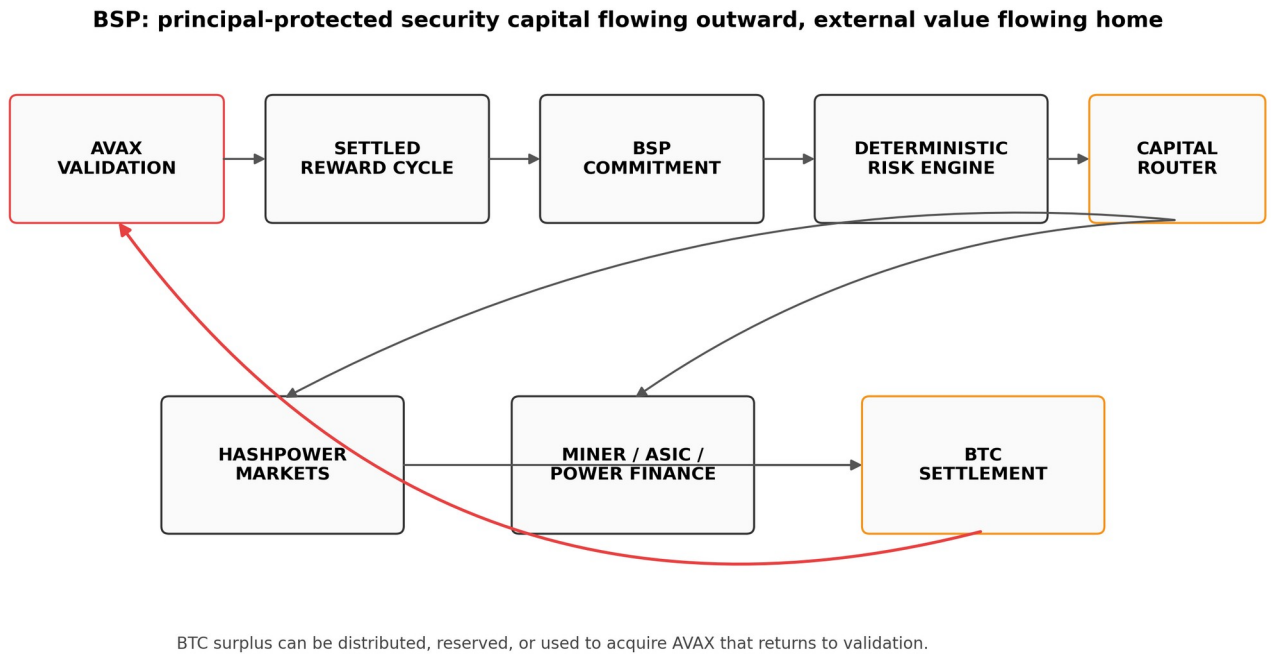
5. Search for Bitcoin

The phrase “search for Bitcoin” is deliberate. Buying BTC is passive exposure. Mining is productive exposure. Financing mining is capital allocation into productive exposure.

A sophisticated Avalanche validator should eventually be associated with systems that continuously evaluate hashprice, network difficulty, transaction fees, pool concentration, credit conditions, hashpower markets, miner balance sheets, ASIC markets, energy contracts, and settlement risk. Sometimes the correct trade is to buy hashpower. Sometimes it is to finance an operator. Sometimes it is to buy nothing.

The network should not require constant deployment. It should require a capability to search and a protocol that can refuse bad economics.

6. Bitcoin Security Participation (BSP)



Proposed high-level BSP architecture. The red return path is external BTC-derived value returning to Avalanche economics.

6.1 Reward-side commitment

For fixed-term staking today, rewards are not accrued incrementally; the protocol determines actual rewards at the end of the staking period. [3] Under ACP-236 auto-renewed staking, the P-Chain settles each cycle and can immediately restake a configurable share of rewards. [3] BSP should attach to that settlement boundary, not pretend that unearned rewards are already collateral.

A future transaction or configuration could conceptually divide settled rewards into three buckets: withdraw, auto-compound, and Bitcoin Security Commitment. The exact implementation belongs in an ACP, but the accounting boundary is already becoming native to the P-Chain.

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6.2 How the Search Is Funded

The strongest design is treasury-first. BSP starts with seed operating capital and no debt. Bitcoin-directed work produces real BTC, and that BTC is retained inside the BSP Treasury. The network gradually owns the collateral base that finances its own future operations.

PROPRIETARY BSP CAPITAL STRUCTURE

BSP Treasury + bAVAX Bond Market + Protocol-Owned Validation. BTC is the hard external reserve; committed AVAX reward streams are the bondable receivable; retained AVAX becomes protocol-owned security capital.

THE THREE OWNED ASSETS

1 BTC TREASURY

Seed capital funds the first search. Net BTC produced by approved hashpower and miner-finance activity is retained as treasury reserve rather than distributed by default.

2 BAVAX BOND MARKET

Validators can commit a defined share of future settled AVAX rewards. BSP issues a discounted fixed-maturity bAVAX claim only against that measurable receivable.

3 PROTOCOL-OWNED VALIDATION

When committed rewards settle, bAVAX liabilities are redeemed first. The protocol retains the bond spread in AVAX and returns that surplus to validation, creating permanently productive AVAX owned by the BSP Treasury.

6.3 Bootstrap, Earn, Own

- Bootstrap: Relic / Foundation-side seed capital funds a tightly capped pilot directly. No debt and no validator collateral are required to prove execution, custody, accounting, and settlement.
- Earn: successful Bitcoin-security activity settles back into the BSP Treasury. The treasury sells only what is necessary to preserve operating liquidity and retains net BTC as reserve.
- Own: bAVAX bonding converts part of future validator reward flow into protocol-owned AVAX spread. That AVAX returns to validation and compounds.
- Accelerate only later: after the BTC reserve has a credible track record, the protocol may borrow conservatively against treasury-owned BTC. Credit is an accelerator, never the engine.

6.4 bAVAX: Bonded AVAX

bAVAX should be a fixed-maturity financing instrument, not a second monetary token. Every unit must correspond to an asset BSP has actually acquired: a haircutted claim on future settled AVAX rewards. Governance cannot mint bAVAX merely because it wants more liquidity.

MAXIMUM BAVAX ISSUANCE

$$bAVAX \leq \min(H \times PV(\text{Committed AVAX Rewards}), \text{Global Bond Ceiling})$$

RESERVE COVERAGE

$$\frac{\text{AVAX Receivables} + \text{Allocated BTC Reserve}}{bAVAX \text{ Liabilities}} \geq \text{Required Coverage}$$

A production system could require a reserve-coverage floor such as 1.25x before a new auction opens. If coverage falls below the protocol threshold, new bAVAX issuance stops automatically. Nothing needs to be liquidated from validator stake.

6.5 Illustrative Bond Transaction

1. A validator commits 1,000 AVAX of forecast future rewards to BSP for a fixed maturity.
2. The risk engine recognizes only 900 AVAX after timing, performance, and volatility haircuts.
3. The bond auction issues, for example, 850 bAVAX against that receivable. The discount is the protocol margin and the validator receives immediate transferable liquidity.
4. When rewards settle, 850 AVAX satisfies bAVAX redemption. The remaining 150 AVAX belongs to BSP.
5. BSP returns the retained AVAX to validation. The treasury now owns productive security capital that can generate future AVAX rewards.

PROTOCOL-OWNED VALIDATION

The treasury does not need to sell the AVAX spread. It can stake it. Over time BSP can own a growing block of AVAX that permanently secures Avalanche, compounds rewards, and expands the system that searches for Bitcoin.

6.6 BTC Reserve and Optional Credit

The BTC reserve is the treasury collateral. BSP should prove that it can earn and custody BTC before it borrows against BTC. Once production history exists, an optional low-LTV revolving line can increase working capital without selling the reserve.

CREDIT IS OPTIONAL

A mature BSP may permit, for example, 10%-20% maximum loan-to-value against treasury-owned BTC. If BTC falls, the credit limit contracts and new draws stop. The lender has a claim only against pledged treasury assets - never against staked validator AVAX.

6.7 Capital Router and Autonomous Search

- Approved uses can include rented SHA-256 hashpower, short-duration miner working capital, ASIC finance, power-contract finance, pool liquidity, and future verifiable Bitcoin-security instruments.
- Autonomous agents propose allocations. The deterministic risk engine checks hurdle rate, duration, slippage, oracle agreement, counterparty concentration, reserve coverage, and permitted treasury exposure.
- If expected economics do not clear the hurdle rate, capital remains idle. "Do nothing" is always a valid output.
- BSP should never depend on a single marketplace, pool, custodian, lender, stablecoin, model, or execution venue.

7. The Safety Constitution

INVARIANT #1

One AVAX securing Avalanche can never be lost because BSP failed.

- No validator-principal or delegator-principal rehypothecation. BSP liabilities never obtain liquidation rights over staked AVAX.
- Every bAVAX must map to a haircutted AVAX receivable and remain inside a global issuance ceiling. No unbacked governance minting.
- A hard BTC reserve-coverage floor governs new bAVAX issuance. Falling below the threshold halts expansion automatically.
- Any external borrowing is optional, treasury-level, and low-LTV against BSP-owned BTC or other BSP-owned assets - never against validator stake.
- No recursive collateral: bAVAX or claims created by BSP cannot be re-counted to manufacture additional issuance or borrowing capacity.
- Bitcoin, pool, oracle, market, agent, custody, bond-market, or credit failure must never impair Avalanche consensus.
- Counterparty concentration, slippage, duration, oracle-deviation, reserve-LTV, and global deployment limits are deterministic.
- AI is explicitly untrusted. No model is consensus-critical and no model has discretionary control of validator principal.

8. Why This Fits Avalanche Now

8.1 The Foundation is already asking the right question

The Foundation's July 30 economic research agenda explicitly says that the connection between ecosystem output and AVAX value accrual is the central problem it is working on. It organizes the work around measuring value, capturing value at the protocol level, and distributing it to maximize AVAX value accrual. It also identifies validator economics and ecosystem capital allocation as dedicated research streams. [2]

The Long Winter proposes a fourth direction that complements those streams: do not limit the search for capturable value to economic activity that originates inside Avalanche. Give Avalanche security capital a disciplined way to reach outward for external productive activity.

8.2 ACP-236 supplies the adjacent staking primitive

ACP-236 is live on Fuji and not yet scheduled for Mainnet. It introduces auto-renewed validation cycles, reward settlement at cycle boundaries, and an AutoCompoundRewardShares field that determines how much of each reward is restaked. Restaked rewards increase validator weight for the following cycle. [3]

That is almost exactly the point where BSP belongs. The concept can be tested without altering consensus: a separate voluntary module can observe settled rewards and route an authorized share to a BSP vault. Only after the economics and operations are proven would a native P-Chain field be worth discussing.

8.3 ACP-77 gives L1s a path to sovereign adoption

ACP-77 changed the relationship between Avalanche L1s and the Primary Network: L1 validator sets can be managed through their own validator managers, with staking-related operations under the L1's control. [4] That means BSP does not need to become a universal mandate across every Avalanche L1. The Primary Network can prove the primitive; sovereign L1s can adopt, reject, or customize it.

A Bitcoin-oriented L1 could eventually require a larger BSP commitment. An enterprise L1 could require zero. The primitive expands Avalanche's validator design space without destroying L1 sovereignty.

9. Facts, Not Vibes

As of August 8, 2026, the official Avalanche validator page reports 247,622,350 AVAX of total stake, including 201,886,319 AVAX of validator stake and 45,736,031 delegated AVAX, across 1,724 staking validators, with a displayed APY of 6.7%. [1]

Using an AVAX price around $6.54, the validator self-stake produces a simple annualized reward-value snapshot of approximately 13.53 million AVAX, or $88.5 million. Including delegated stake raises the simple snapshot to approximately 16.59 million AVAX, or $108.5 million. These are arithmetic illustrations based on the displayed APY—not forecasts of actual realized network rewards.

On the Bitcoin side, Hashrate Index reports a spot hashprice of approximately $32.58 per PH/s/day and a 7-day network hashrate around 929.16 EH/s on August 8, 2026. [6] Hashprice is the expected miner revenue per unit of SHA-256 hashrate and is driven by Bitcoin price, subsidy, transaction fees, and network difficulty/hashrate. [6] [7]

At those snapshots, Bitcoin's gross mining-revenue economy is roughly $11 billion per year: 929.16 million PH/s × $32.58 per PH/s/day × 365. This is not miner profit; it is gross revenue capacity before power, equipment, financing, pool, and operating costs.

9. The Physical Layer

Why Avalanche should think beyond software

A blockchain is not a disembodied economic system. It is software executed by physical machines, connected by physical networks, powered by physical energy, cooled by physical infrastructure, and ultimately manufactured from physical materials. If the next decade is defined by a rapid expansion of AI, autonomous agents, digital services, and machine-to-machine commerce, the strategic bottleneck may move downward from software to the physical capacity required to run it.

The question is not whether Avalanche should become a semiconductor manufacturer. It should not. The question is whether a network with a treasury, validators, capital markets, and a long-term security mandate should deliberately remain blind to the infrastructure that makes digital computation possible.

> I do not think it should.

THE THESIS

Avalanche should develop a disciplined infrastructure-allocation capability whose first objective is to secure scarce inputs to computation: powered land, grid capacity, data-center capacity, memory, networking, accelerators, advanced packaging, semiconductor equipment, and—only when economically justified—strategic manufacturing exposure.

This is an extension of the Long Winter thesis, not a departure from it. BSP begins by recognizing that Bitcoin security is physical work. The infrastructure doctrine generalizes that observation: digital networks ultimately depend on ownership, access, and financing of physical productive capacity.

The strategic objective is resilience. Avalanche should not attempt to own everything. It should build the ability to identify what is becoming scarce, quantify the economics, and acquire exposure before scarcity becomes an existential constraint.

9.1 An Infrastructure Acquisition Doctrine

The network should acquire capabilities, not trophies.

The obvious criticism is that “infrastructure” is so broad that it can become a license to spend treasury capital on anything. That is exactly why the proposal needs a narrow doctrine. Every acquisition or long-term contract should pass a scarcity, strategic-dependence, cash-flow, and exit test.

Layer	What BSP/Avalanche should seek	Why it matters
Power	Generation, PPAs, substations, transmission/interconnection rights	Compute cannot exist without reliable power; grid access can take years to secure.
Land & facilities	Powered land, data-center shells, cooling and fiber access	Physical sites can become bottlenecks before equipment does.
Compute	ASICs, GPUs/accelerators, storage, networking	Creates immediate productive capacity and procurement leverage.
Memory	HBM/DRAM/NAND supply relationships or strategic inventory	Memory is a first-order constraint for AI and high-performance computing.
Packaging	Advanced packaging/test capacity and equipment	Chip performance increasingly depends on packaging and integration.
Semiconductor equipment	Strategic equipment exposure or financing	Equipment lead times can constrain fab expansion even when capital is available.
Fabrication	Minority stakes, capacity reservations, JVs, or other structured exposure	Only pursued when the economics, governance, and strategic value justify the scale.

CAPITAL DISCIPLINE

No infrastructure purchase should be justified by narrative alone. Each proposal should show expected cash yield, replacement cost, strategic scarcity, downside case, liquidity/exit path, counterparty risk, regulatory perimeter, and the percentage of total treasury NAV at risk. A strategic asset can be worth owning and still be a bad price.

Stage the exposure. The preferred sequence is contract → capacity reservation → minority investment → joint venture → controlling ownership. Direct ownership of a massive physical asset should be the last step, not the first.

Keep the core protocol liquid. Infrastructure should live in a ring-fenced treasury subsidiary or legal vehicle where appropriate. The P-Chain consensus system must never depend on the solvency of a factory, data center, energy project, or infrastructure SPV.

9.2 The Terafab Question

A category signal—not an assumed transaction

The proposal should be precise here. Avalanche should not assume that it can purchase “a fab deck” from SpaceX, Tesla, or any other manufacturer. There is no basis for treating such a transaction as available. The point is strategic: if the world’s most vertically integrated technology companies are building manufacturing capacity because access to compute hardware is becoming a strategic constraint, Avalanche should understand that category of asset and have the institutional capability to evaluate it.

PUBLIC FACTS

SpaceX has publicly described Terafab as a chip-manufacturing initiative with a long-term goal of producing one terawatt of compute hardware annually. Its public filings describe a vertically integrated approach spanning chip design/lithography masks, logic and memory fabrication, advanced packaging, and testing, while also stating that specific projects remain subject to separate agreements and that Terafab is intended to complement—not eliminate—third-party sourcing. [B1][B2]

That is strategically relevant because it demonstrates a broader industrial pattern: compute supply is being treated as infrastructure. The response is not to copy another company’s manufacturing plan. It is to recognize that a digital network with a ten-year horizon should have an infrastructure strategy of its own.

A serious Avalanche infrastructure desk could therefore maintain a watchlist of opportunities such as:

- powered data-center campuses with secured interconnection capacity;
- long-term power contracts and generation assets serving compute;
- ASIC, GPU, accelerator, memory, and networking supply agreements;
- advanced packaging, testing, and semiconductor-equipment capacity;
- minority stakes or capacity reservations in strategically important fabs;
- financing structures that turn scarce physical capacity into long-duration productive assets.

> The target is not ownership for prestige. The target is optionality over scarce computation.

[B1] Space Exploration Technologies Corp., public filing describing Terafab and its one-terawatt annual compute-hardware goal, 2026. [B2] SpaceX/Tesla/Intel public materials describing vertically integrated logic, memory, packaging and test ambitions for Terafab.

9.3 The Obvious Critiques

A proposal that cannot survive criticism should not touch a treasury.

“This is mission creep.”

Correct if Avalanche buys unrelated businesses. The doctrine therefore limits investment to infrastructure that materially supports computation, network security, treasury resilience, or strategically scarce digital capacity. Governance should reject anything that cannot demonstrate a measurable link.

“A blockchain treasury cannot compete with industrial conglomerates.”

It does not need to. The strategy begins with contracts, financing, minority positions, and capacity reservations. The goal is exposure and optionality, not immediate ownership of an entire supply chain.

“Fabs cost tens of billions.”

Exactly. That is why a fab is a late-stage possibility, not a day-one plan. The realistic intermediate assets are capacity reservations, packaging, equipment finance, power, land, and minority investments.

“Semiconductor technology becomes obsolete.”

Also correct. The underwriting model must include depreciation, node transitions, utilization, maintenance capex, technology-transfer risk, and a forced exit assumption. Strategic scarcity is not an excuse to ignore economics.

“This centralizes Avalanche.”

Only if physical assets become consensus dependencies. They must not. Infrastructure remains off-consensus, legally ring-fenced, auditable, and economically optional. Consensus should continue to function if every infrastructure investment is worth zero.

“This creates conflicts of interest.”

It can. Counterparties, validators, treasury managers, and investment vehicles require explicit conflict policies, independent approvals, custody segregation, and transparent reporting.

“The treasury becomes an investment fund.”

The boundary should be explicit: the mandate is infrastructure tied to computation and network resilience, not general asset management. Anything outside the mandate requires a separate governance process or is prohibited.

“Returns will be worse than simply holding BTC/AVAX.”

Possibly. That is why every project needs a benchmark against passive BTC/AVAX exposure, risk-adjusted return, liquidity, and strategic value. A project that fails the benchmark should not be funded merely because it is interesting.

THE NON-NEGOTIABLE BOUNDARY

No infrastructure asset can become a hidden dependency of Avalanche consensus. If the asset fails, burns capital, becomes legally inaccessible, or is seized, the P-Chain must continue operating normally. Infrastructure is an economic layer around the protocol—not a single point of failure inside it.

9.4 From Bitcoin Security to Compute Security

The strategic arc of The Long Winter

BSP begins with a narrow proposition: use a portion of validator economics to create productive exposure to Bitcoin security. The infrastructure doctrine asks what happens after the first reserve exists. The answer should be disciplined expansion into the physical bottlenecks that increasingly determine the value of computation.

THE CAPITAL STACK

AVAX secures Avalanche. Validator rewards create a recurring economic stream. bAVAX converts a bounded portion of that stream into protocol-owned AVAX. BTC earned by BSP becomes hard external reserve collateral. Treasury credit, if later justified, finances additional productive capacity. Infrastructure assets secure optionality over power, land, memory, compute, packaging and manufacturing.

The resulting strategy is not “buy everything.” It is a ladder:

• Prove. Operate Bitcoin-security activity and publish the economics.

• Accumulate. Retain BTC and protocol-owned AVAX rather than distributing every unit of surplus.

• Secure. Convert treasury strength into long-duration access to scarce physical inputs.

• Partner. Use contracts, joint ventures and minority positions before attempting control.

• Own selectively. Acquire only assets whose replacement value, strategic scarcity and cash economics justify ownership.

• Compound. Reinvest genuine external cash flows into the assets that make the network harder to starve of compute.

This is the part of the thesis I believe is easiest to underestimate. The next decade may not be won by the protocol with the cleverest abstraction. It may be won by the organizations that can reliably obtain the physical resources required to execute computation at scale.

> Avalanche should not attempt to become a semiconductor company. It should become an economic system capable of owning a strategic claim on the infrastructure of computation.

If that sounds too ambitious, the correct response is not to dismiss it. The correct response is to build a 90-day diligence process that determines exactly which parts are economically insane, which parts are merely difficult, and which parts are already becoming inevitable.

That is the same standard applied to BSP: build the smallest version that can be falsified, publish the result, and compound only what survives.

10. Ten Years Out: Treasury BSP Monte Carlo

The revised model asks how a treasury-owned BSP can grow from a small seed while retaining BTC, acquiring AVAX through bAVAX spreads, and using optional BTC-reserve credit only after collateral exists. It runs 10,000 quarterly paths for ten years and is a scenario engine, not a price prediction.

TREASURY-FIRST MODEL

Day-one operations are paid from owned seed capital. Positive operating profit is retained as BTC. bAVAX acquires validator reward receivables. Retained AVAX becomes Protocol-Owned Validation. Only earned BTC may later support low-LTV working capital.

10.1 Policy scenarios

Scenario	Seed	Participation	Reward bonded	Bond spread	BTC LTV	Turnover	Util.
Pilot	$0.5M	5% -> 25%	5%	3%	10%	2x/yr	50%
Base	$1.0M	10% -> 50%	10%	5%	15%	4x/yr	70%
Strategic	$2.0M	10% -> 75%	20%	7%	20%	4x/yr	75%

Participation is the share of validator economic weight enrolled in the bond program. Reward bonded is the portion of participating reward economics committed to bAVAX. Bond spread is the illustrative AVAX retained by BSP after redemption. BTC LTV is a maximum mature-state treasury credit limit, not day-one leverage.

10.2 Core model assumptions

- Initial validator self-stake: 201,886,319 AVAX; initial displayed staking APY: 6.7%. [1]
- Illustrative starting prices remain near the proposal snapshot: AVAX ~$6.54 and BTC ~$65K. Price paths are stochastic and highly volatile.
- Staking APY declines from 6.7% toward 4.5% over ten years. This is a modeling assumption, not a Foundation forecast.
- Positive BSP operating profits are retained as BTC; operating losses reduce the cash sleeve before any optional treasury credit.
- Protocol-owned AVAX generated through the bAVAX spread is returned to validation and compounds its own rewards.
- Optional BTC-backed credit is limited by scenario LTV and contracts automatically when reserve value falls.
- Net BSP margins are stochastic around 2% Pilot, 4% Base, and 5% Strategic with wide dispersion; the model assumes no permanent alpha.
- Validator and delegator principal are excluded from every collateral calculation.

10.3 Median Treasury Outputs

Scenario	10-yr Deployment	BTC Reserve Value	BTC Units	Protocol AVAX	POV Share
Pilot	$4.45M	$0.18M	5.8 BTC	30K	0.015%
Base	$23.50M	$1.13M	34.4 BTC	201K	0.10%
Strategic	$51.06M	$2.90M	89.0 BTC	784K	0.39%

The Base case begins with only $1.0M of seed operating capital. Across the median path, it supports about $23.5M of cumulative Bitcoin-security deployment, ends with roughly 34 BTC in the treasury, and accumulates about 201,000 AVAX of Protocol-Owned Validation through modeled bond spread and compounding.

DISPERSION MATTERS

Base deployment IQR: ~$21.4M-$26.2M. Base Year-10 BTC reserve-value IQR: ~$0.58M-$2.38M. Strategic deployment IQR: ~$44.6M-$59.6M. Strategic Year-10 BTC reserve-value IQR: ~$1.42M-$6.27M.

10.4 What Changed From the Credit-First Model

- Growth is slower at the beginning because BSP does not rent a large external balance sheet on day one.
- The tradeoff is ownership: the protocol accumulates BTC reserves and validating AVAX instead of paying away the core economics as financing spread.
- BTC appreciation can enlarge collateral capacity without selling the reserve; BTC drawdowns automatically reduce it.
- The bAVAX loop creates a separate AVAX sink: part of validator reward flow can become permanently protocol-owned validation rather than circulating reward supply.
- The system can survive with zero external credit. If credit markets disappear, BSP shrinks to its owned operating capital rather than becoming insolvent.

WHAT THE SIMULATION DOES NOT PROVE

It does not prove profitable hashpower forever, guaranteed BTC accumulation, AVAX appreciation, or autonomous-agent alpha. It tests whether a treasury-first system can acquire real reserves without making validator stake collateral.

10.5 What the Treasury Model Says

Ownership is the strategic advantage

A treasury-first BSP does not maximize day-one deployment. It maximizes survivability. The system can begin small, prove execution, retain BTC, and build a balance sheet that belongs to the protocol rather than to permanent outside lenders.

bAVAX is useful only if it remains boring

bAVAX converts a forecast reward stream into an explicit receivable with deterministic issuance limits. It should not rebase, promise unsustainable APY, or require perpetual new buyers. If the underlying reward asset is not there, new bAVAX cannot be created.

BTC becomes earned collateral

The first BTC in the treasury is more important than a larger theoretical credit line. Once BTC has been earned through actual Bitcoin-directed work, the treasury may keep it unencumbered or use a small portion as collateral. The protocol earns the right to leverage by first earning the collateral.

Protocol-Owned Validation compounds the other side

The AVAX retained through bAVAX bonding is not dead inventory. Returning it to validation creates a productive asset that secures Avalanche and earns future AVAX. BSP therefore compounds two reserves at once: external BTC and native validating AVAX.

THE PROPRIETARY LOOP

Seed capital -> Bitcoin security work -> BTC Reserve -> optional BTC-backed working capital. In parallel: validator reward commitment -> bAVAX -> settled AVAX spread -> Protocol-Owned Validation. The BTC side builds hard collateral. The AVAX side builds native security capacity.

The consequence

This architecture changes the proposal from a financed mining strategy into an owned balance-sheet strategy. Hashpower is the external production engine; BTC is the reserve; bAVAX is the receivables instrument; validating AVAX is the native productive asset.

11. What the Monte Carlo Actually Says

11.1 The thesis does not require magic alpha

The central objective is not to “beat” Bitcoin mining. It is to ensure that Avalanche owns a permanent capability inside the Bitcoin security economy. The search system exists to make that position cheaper, safer, and—when markets allow—profitable. If there is no attractive trade, the correct result is inactivity.

11.2 Even a small allocation is measurable

Bitcoin’s security market is enormous, but Avalanche does not need to dominate it. A persistent fraction of a percent of global hashpower-equivalent economics would already be a historically unusual relationship between a major proof-of-stake network and Bitcoin.

11.3 The upside is strategic learning

The hidden asset accumulated by BSP is not only BTC. It is operational knowledge: miner underwriting, pool economics, hashpower derivatives, ASIC depreciation, power-market behavior, custody, settlement, and the data required to build better autonomous capital allocators. When Bitcoin’s next major wave arrives, that knowledge may matter more than a late treasury purchase.

11.4 At sufficient scale this stops being DeFi

If Avalanche eventually commands hundreds of millions of dollars of Bitcoin-security financing, it will affect counterparty terms and perhaps local hashpower markets. At that point the price-taker assumptions of this model break down. The project becomes infrastructure policy for a decentralized network, which is precisely why the experimentation must begin small.

12. The Vehicle in the Water

If Avalanche expects Bitcoin to remain the primary monetary and liquidity gravity well of crypto, it should possess a native mechanism capable of participating directly in the security economy around it.

> **You do not build the boat after the wave reaches you.**

Bitcoin’s next expansion may come from price, sovereign accumulation, institutional credit, transaction-fee markets, energy-grid integration, miner consolidation, new hashpower derivatives, or something we do not yet see. The exact wave is unknowable. The capability to participate is knowable.

Build the interfaces now. Build miner relationships now. Build the data now. Build the risk engine now. Build the settlement rails now. Learn how to deploy $100,000 intelligently before asking how to deploy $100 million.

13. Roadmap: Ambitious in Vision, Boring in Execution

Phase 0 - 90-day falsification sprint

1. Rebuild the treasury/BSP model with Foundation economists; publish assumptions, code, reserve-coverage rules, and falsification criteria.
2. Interview validators, miners, pools, hashpower markets, custodians, ASIC-finance providers, bond-market specialists, and BTC-collateral lenders.
3. Define the legal perimeter for custody, bAVAX issuance, lending, derivatives, sanctions screening, and miner counterparties.
4. Write the architecture for a voluntary off-consensus BSP Treasury tied to settled validator rewards and a fixed-maturity bAVAX test instrument.
5. Specify BTC reserve accounting, bond haircuts, coverage floors, Protocol-Owned Validation, oracle design, Hashwork Receipts, and failure behavior.
6. Decide whether the thesis survives. If not, publish why.

Phase I - Fuji / shadow pilot

- Volunteer validators only.
- Synthetic bAVAX accounting first; then a very small treasury-funded live cap.
- No borrowing; no validator or delegator principal.
- Public dashboard: reward commitments, hypothetical bAVAX issuance, proposed/rejected trades, BTC settlement, and reserve coverage.
- Risk engine can shut bond issuance and allocation to zero without affecting validation.

Phase II - Mainnet voluntary BSP Treasury

- Explicit validator opt-in and fixed-maturity bAVAX with a hard issuance ceiling.
- Treasury-funded miner/hashpower exposures across multiple counterparties.
- BTC retained in the protocol treasury; AVAX bond spread returned to Protocol-Owned Validation.
- Independent audits, published reserve accounting, and validator-level Bitcoin security attribution.

Phase III - Earned leverage + native reward routing

- Only after a live BTC reserve history exists, permit optional low-LTV credit against treasury-owned BTC.
- If production data justifies it, propose native reward-routing semantics adjacent to ACP-236 auto-compound controls.
- Expose Protocol-Owned Validation and reserve coverage transparently at the protocol level.

Phase IV - Minimum capability, not forced trading

Only after years of production evidence should Avalanche consider making some minimum BSP capability part of full Primary Network reward eligibility. The requirement should be bounded capability, not uneconomic deployment.

- new reward-routing semantics at staking-cycle settlement;
- validator BSP commitment configuration;
- accounting and authorization rules;
- network-level and validator-level risk parameters;
- backwards compatibility and grandfathering;
- reference implementation hooks for settlement vaults;
- telemetry and audit requirements;
- a complete guarantee that BSP failure cannot impair Avalanche consensus.

15. Bring Me Into the Room

I am not presenting this as a finished answer handed down from outside the ecosystem. I am presenting it as a thesis worth attacking with the best people Avalanche has.

The Foundation has already said it wants a systematic, empirical, public answer to AVAX value accrual. [2] This proposal is exactly the kind of question that deserves that treatment.

> **Do not accept this idea on faith. Give me the chance to try to kill it with you.**

Bring me on board for the workstream. Give me access to the people who understand P-Chain internals, validator operations, token economics, credit risk, mining markets, and legal structure. Let me own the coordination burden. Let the specialists tear the proposal apart. I would rather discover a fatal flaw in week two than defend a beautiful idea that cannot survive reality.

If the thesis survives, let us build the smallest possible machine that can prove one thing: an Avalanche validator can cause useful Bitcoin proof-of-work to exist, account for that work, settle the economics, and do it without ever threatening the AVAX that secures Avalanche.

If we can prove that primitive, the rest of the decade opens up.

Avalanche would possess a new external revenue surface, a new validator capability, a new relationship with Bitcoin, and a foundation for AI-native capital allocation that other proof-of-stake networks do not yet have.

I am asking for a seat at the table because I want to spend the next decade helping build that, not watching someone else rediscover it after the next Bitcoin wave has already arrived.

PROPOSED COMMITMENT FROM AVALANCHE

Fund and staff a 90-day BSP falsification sprint. Bring Relic on as a paid strategic contributor/research lead. At day 90, make a binary decision: stop and publish why, or fund the Fuji pilot and begin the ACP path.

16. Conclusion: Set Avalanche Up for the Next Decade

The first era of crypto proved decentralized money could exist. The second proved programmable blockchains could exist. The next era will demand economically productive networks that own capabilities instead of renting narratives.

Validators should work. Treasuries should work. Liquidity should increasingly be owned. Capital should be capable of earning value outside the token system that created it. Autonomous intelligence should search, while deterministic protocols constrain.

For Avalanche, Bitcoin is the obvious place to start.

AVAX already secures Avalanche. Every reward that returns to validation can strengthen the capital base. A bounded portion of validator economics can finance the search for Bitcoin. Bitcoin-directed work can generate BTC-denominated value. BTC-derived surplus can accumulate, deepen liquidity, acquire AVAX, and return to validation.

AVAX → security → external work → BTC → AVAX → security.

That is not scarcity theater. It is not an arbitrary burn. It is not a promise that AI finds free money. It is an attempt to make Avalanche security capital productive in the largest proof-of-work security market on Earth.

Winter will come again. The question is whether Avalanche enters it depending on summer—or carrying its own heat.

And when Bitcoin's next great wave appears, the question should not be whether Avalanche can find a way to ride it.

The vehicle should already be in the water.

RELIC

Appendix A — Monte Carlo Methodology

Purpose: estimate the scale of a reward-side Bitcoin Security Participation capability under uncertain market and network conditions. The model is not a valuation model for AVAX, BTC, or any security; it is not an expected-return forecast; and it does not assume that gross mining revenue is profit.

A.1 Time step and reproducibility

- 10,000 independent paths.
- 40 quarterly periods from August 2026 through approximately August 2036.
- Pseudo-random seed: 42.
- All reported distributions are cross-path percentiles.

A.2 Price processes

BTC and AVAX are modeled as correlated lognormal processes. The annual log-drift and volatility assumptions are scenario parameters, not historical estimates. The intentionally high volatilities are designed to expose the proposal to long winters and violent recoveries rather than produce a smooth bull-market path.

A.3 Bitcoin hashrate and hashprice

Bitcoin network hashrate follows a stochastic log process with partial correlation to BTC shocks. Gross BTC hashprice is derived from modeled daily issuance plus transaction fees divided by network hashrate. This is converted into USD hashprice using modeled BTC price. The block subsidy follows the consensus halving schedule approximately at 2028, 2032, and 2036 boundaries. [7]

A.4 Validator economics

The validator base begins at the current official self-stake figure. APY declines from 6.7% to 4.5% over the decade. Half of validator rewards are modeled as recompounded into stake. This is an assumption that reflects the capability introduced by ACP-236, not a prediction of validator behavior. [3]

A.5 Hashpower conversion

Facility deployment is converted into gross hashpower-economic equivalent using modeled USD hashprice and a stochastic procurement cost factor centered around a 7% premium/friction. The resulting “financed EH/s” is therefore a capacity proxy. It should not be interpreted as guaranteed delivered pool hashrate or expected profit.

A.6 Why no AI alpha assumption?

The headline model deliberately does not require persistent AI-generated trading alpha. The strongest version of the thesis is that Avalanche should own the capability even if procurement is merely near market economics. Strategy alpha, miner-credit spreads, distressed financing, hedging, and pool-routing gains should be measured in pilots and added only after evidence exists.

A.7 Full percentile outputs

Scenario	Metric	P5	P25	Median	P75 / P95
Pilot	10-yr deployment	0.2 $M	1.0 $M	3.3 $M	12.7 $M / 124.8 $M
Pilot	Gross BTC-equiv.	3 BTC	10 BTC	26 BTC	72 BTC / 394 BTC
Pilot	Year-10 EH/s	0.00 EH/s	0.03 EH/s	0.15 EH/s	0.73 EH/s / 6.66

Scenario	Metric	P5	P25	Median	P75 / P95
					EH/s
Pilot	Year-10 share	0.000%	0.002%	0.008%	0.034% / 0.298%
Base	10-yr deployment	4.0 $M	18.0 $M	61.1 $M	238.0 $M / 2,329.3 $M
Base	Gross BTC-equiv.	61 BTC	188 BTC	481 BTC	1,348 BTC / 7,349 BTC
Base	Year-10 EH/s	0.06 EH/s	0.63 EH/s	2.82 EH/s	13.57 EH/s / 124.34 EH/s
Base	Year-10 share	0.003%	0.033%	0.144%	0.631% / 5.557%
Strategic	10-yr deployment	11.1 $M	52.4 $M	185.0 $M	736.0 $M / 7,336.8 $M
Strategic	Gross BTC-equiv.	168 BTC	550 BTC	1,445 BTC	4,130 BTC / 23,039 BTC
Strategic	Year-10 EH/s	0.19 EH/s	2.02 EH/s	9.06 EH/s	43.54 EH/s / 398.57 EH/s
Strategic	Year-10 share	0.011%	0.106%	0.463%	2.023% / 17.819%

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Market values and network statistics are time-sensitive snapshots. All model outputs should be rerun with current data before any implementation decision.

Research proposal only. Not investment, legal, tax, or financial advice.