

#### **September 25, 2025**

| DAT Companies – Key Me      | trics          |
|-----------------------------|----------------|
| Strategy Inc. (MSTR)        |                |
| BTC Holdings (\$-Mn)        | \$74,636       |
| Token Yield (YTD)           | 25.4%          |
| mNAV                        | 1.27x          |
| Semler Scientific Inc. (SML | R)*            |
| BTC Holdings (\$-Mn)        | \$587          |
| Token Yield (YTD)           | 31.3%          |
| mNAV                        | 0.74x          |
| Metaplanet (TYO: 3350)      |                |
| BTC Holdings (\$-Mn)        | \$2,354        |
| Token Yield (YTD)           | 465.7%         |
| mNAV                        | 1.75x          |
| DeFi Development Corp. (    | DFDV)          |
| SOL Holdings (\$-Mn)        | \$494          |
| SOL Yield (3-Mth)           | 10.0%          |
| mNAV                        | 0.90x          |
| SOL Strategies Inc. (STKE   | ≣)             |
| SOL Holdings (C\$-Mn)       | \$106          |
| Staking Yield (APY)         | 10.0%          |
| mNAV                        | 1.40x          |
| Upexi Inc. (UPXI)           |                |
| SOL Holdings (\$-Mn)        | \$492          |
| Staking Yield (APY)         | 8.0%           |
| mNAV                        | 0.78x          |
| BTCS Inc. (BTCS)            |                |
| ETH Holdings (\$-Mn)        | \$327          |
| Staking Yield (APY)         | 4.2%           |
| mNAV                        | 0.70x          |
| Source: Exec Edge Research  | n, TIKR. Stock |

Source: Exec Edge Research, TIKR. Stock price data as of 9/12. Token yield for MSTR, SMLR, and TYO: 3350 are on YTD basis, for DFDV, STKE, UPXI, BTCS token yield reflects APY staking yields. \*Semler is set to be acquired by Strive (ASST) for \$1.3 billion.

#### CONTACT

#### **Exec Edge Research**

research@executives-edge.com

Please refer to the Disclaimer at the end of this report.

# **Charting the DAT Terrain: A Field Guide for Discerning Investors**

- In our June 2025 report, <u>HODL On Tight The Rise of Public Market Crypto Treasuries</u>, we discussed the emergence of Digital Asset Treasury (DAT) companies that are treating token accumulation as the centerpiece of value creation. In this update, we outline the key KPIs that investors should monitor while evaluating such companies and the differentiators factors that will create long-term DAT winners.
- DAT companies are blending crypto holdings with the structure and transparency of listed equities. These firms give investors regulated, liquid access to blockchain-based value creation while managing diversified holdings across major tokens and yield-generating assets. The approach offers investors amplified digital asset exposure, for those willing to accept elevated volatility in exchange for potential equity value expansion.
- DAT strategies are expanding. And expanding fast. MSTR's 2020 move to channel excess cash, and subsequently raised capital, into Bitcoin set the template for others. The model has since spread internationally, with new players adapting it to span multiple blockchains and asset types. While Bitcoin still anchors most DAT portfolios, newer participants are adding Ethereum, Solana, and staking-based assets, aiming to enhance returns, diversify exposure, and strengthen treasury efficiency. The result as of July 2025, DAT companies collectively managed over \$100 billion in digital assets, including 791,662 BTC and 1.3 million ETH, representing 3.98% and 1.09% of circulating supply, respectively.
- DAT structures may seem similar but the key to picking winners is focusing on names that demonstrate the ability to turn capital deployed into greater token per share (TPS) growth vs. peers. We believe that DAT names that emerge winners in the long term 1) will have scale, backed preferably by an underlying business that will help manage cash burn, 2) will be laser focused on managing expense leakage and overheads, 3) will generate higher token yield and trade at sustainable mNAV premiums, 4) have the access and ability to raise capital at the opportune time by leveraging the capital market flywheel and without diluting the cap stack, and 5) will be able to manage custodian fee and custodial risk better than peers. We believe that outperformance on these KPIs will be driven by DAT companies that are able to productize token exposure, maintain balance sheet strength, align with regulatory developments, and position themselves in front of investors through transparency and proactive narrative building. We discuss these key KPIs and how they should be evaluated in detail in this report.
- Valuation dispersion within the DAT space creates alpha opportunities. Leaders like Metaplanet, Strategy, and DFDV command premiums through NAV growth and yields, treasury scale, capital efficiency, and disclosure quality. Ability to consistently compound per-share NAV and deliver tokenlinked yields under a robust regulatory framework will help sustain valuation premiums. Weaker peers that lack capital discipline and transparency will trade near spot. For investors, this means overweighting issuers with proven capital deployment frameworks and recurring yield engines, while avoiding structurally weak balance sheets and poor execution.

# **Table of Contents**

| Sector Overview – The Rise of Digital Asset Treasury (DAT) Strategy | 3  |
|---|----|
| The Metrics That Matter for Investors Evaluating DAT Investments    | 9  |
| Capital Efficiency & Value Accretion KPIs                           | 9  |
| Valuation & Market Sentiment KPIs                                   | 13 |
| Cost Efficiency & Operational Risk KPIs                             | 15 |
| Deconstructing the DAT Moat – Identifying Differentiating Factors   | 20 |
| Productization of Token Exposure                                    | 20 |
| Balance Sheet Strength  | 22 |
| Regulatory Positioning  | 23 |
| Market Positioning  | 24 |
| Transparency & KPI Reporting  | 25 |
| Valuing DAT Companies – Peer Comparison and Crypto-Specific Metrics | 27 |
| Risks   | 29 |
| Conclusion & Investment Thesis Framework                            | 30 |
| Appendix – Top 100 Public Bitcoin Treasury Companies                | 31 |
| Disclaimer  | 32 |

# Sector Overview - The Rise of Digital Asset Treasury (DAT) Strategy

- We believe that the Digital Asset Treasury (DAT) strategy represents a high-conviction investment thesis built around the use of digital assets primarily cryptocurrencies as a superior long-term corporate treasury reserve in an era of declining fiat stability. The strategy is rooted in the belief that these digital assets offer superior long-term value preservation relative to fiat currencies. It responds structurally to compressed real yields, sustained monetary expansion, and the erosion of purchasing power across corporate balance sheets. For institutional investors, DAT companies represent a regulated equity pathway into digital asset exposure, blending operational cash flows with embedded crypto asymmetry.
- DAT companies pursue amplified digital asset exposure, accepting elevated volatility in exchange for potential equity value expansion. These companies deliberately employ debt and equity financing to amplify their digital asset holdings. Treasury strategies are designed around balance sheet expansion, i.e., acquiring tokens beyond the capacity of retained earnings alone. As a result, equity performance becomes tightly correlated with token market value, and financing decisions timing, structure, and cost directly influence both asset acquisition and shareholder return. DAT companies embrace this magnified risk-return profile, using leverage as a structural tool rather than a residual effect.
  - Investor interest is reinforced by the liquidity and accessibility of DAT stocks. Unlike private funds or direct crypto ownership, these equities are traded on public markets and may be held within institutional or tax-advantaged accounts. That accessibility frequently commands a premium to net asset value (NAV). The mNAV accretion model of DAT companies operates as a reflexive flywheel. When mNAV > 1, DAT companies can issue shares at a premium, use proceeds to buy tokens, and increase tokens per share. When mNAV < 1, they can sell tokens to repurchase shares, reducing share count faster than token balances decline. In both cases, the result is accretive growth in tokens per share, reinforcing long-term value creation.</p>
- DAT companies sit at the intersection of crypto infrastructure and traditional capital markets, offering digital asset exposure through listed equity vehicles, and are defined by their balance sheet strategy rather than sector classification. They are defined by the strategic deployment of digital assets as reserve capital. Strategy (MSTR) pioneered the model in 2020 by allocating surplus capital and later, raised funds into Bitcoin. Since then, the approach has been scaled globally with firms including Metaplanet (TYO:3350), SOL Strategies Inc. (STKE), and DeFi Development Corp. (DFDV) applying similar structures and extending the playbook across protocols and asset classes. While Bitcoin remains the dominant holding, newer entrants are incorporating Ethereum, Solana, and staking-based instruments to improve capital productivity and portfolio diversification. The sector now segments into three broad profiles. (See chart below.) Collectively, these firms represent an emerging equity category that combines traditional operations with embedded digital asset strategies.

Chart 1: Comparative Treasury Structures Across Digital Asset Treasury (DAT) Companies

| DAT Archetype                       | Core Asset Focus        | Treasury Strategy                               | Key Companies                                 | Digital Allocation<br>(% of Reserves) |
|-------------------------------------|-------------------------|---|---|---------------------------------------|
| Core Allocators: BTC-<br>Maximalist | Bitcoin (BTC)           | Single-asset, high-conviction accumulation      | Strategy (MSTR), Metaplanet<br>(TYO:3350)     | 90–100%                               |
| Core Allocators: Non-<br>BTC Focus  | ETH, SOL + yield tokens | Diversification, staking, validator-based yield | SOL Strategies Inc. (STKE),<br>DeFiDev (DFDV) | 40–80%                                |
| Incidental Allocators               | Bitcoin (primarily)     | Signaling, hedging, or optionality              | Block Inc. (XYZ), Tesla Inc.<br>(TSLA)        | <5%                                   |

Source: Exec Edge Research

Our research shows that since 2020, corporate digital asset strategies have migrated from Bitcoin-led reserves to staking-aligned treasuries built around yield generation. In 2020, Strategy (MSTR) pioneered the transformation of corporate treasuries by allocating over \$250 million to bitcoin, positioning itself as a proxy for digital asset exposure. This initial phase sparked a wave of BTC accumulation, culminating in MSTR amassing 632,457 BTC by August 2025. The following years witnessed institutional experimentation – Tesla (TSLA) and Block (XYZ) incorporated BTC for strategic diversity, though mainly as secondary assets. The 2022 bear market filtered out opportunistic holders, reinforcing commitments by capital-backed players. By 2025, corporate digital asset

treasury strategies can be classified into three distinct classes which include BTC-only treasuries, Stakingaligned treasuries, and Staking + validator operations.

- BTC-only treasuries focus solely on price appreciation where growth depends entirely on token price movements, and operations, salaries, and reinvestment require cash. Consequently, companies often must sell BTC or raise capital to fund expenses, especially during market downturns. MicroStrategy (MSTR) and Metaplanet (TYO:3350) exemplify this approach.
- Staking-aligned treasuries generate organic yield on staked assets in addition to token price appreciation. Staking provides predictable, ongoing network rewards, for example SOL Strategies' (STKE's) ~8% annualized staking yield, which are cash-like and can be used to fund operational costs without touching the underlying treasury principal. Because operations can be funded from earned yield, the company is less dependent on external fundraising or asset sales during unfavorable market conditions, while still benefiting from token appreciation. DeFi Development (DFDV) and Upexi (UPXI) are among those that have adopted this model.
- Staking combined with validator operations creates a dual-yield engine that compounds organic treasury growth. SOL Strategies (STKE) earns ~8% annualized rewards on its staked SOL treasury through direct network participation. In parallel, the company operates a large-scale validator infrastructure that manages over 3.74 million SOL in delegated stake, from which it earns commission revenue (~0.75%) without owning the underlying tokens. Although delegated assets are not part of the balance sheet, the validator fees they generate materially enhance organic cash flow. At current delegation levels, these third-party commissions nearly double the effective organic yield compared to staking alone.
- The staking + validator model is both non-dilutive and highly scalable, enabling treasury growth and operational self-sufficiency without reliance on external financing. Further, because validator commissions accrue independently of token price volatility, this structure provides a reliable income stream across market cycles. In addition to its owned validator network and third-party delegated stake model, SOL Strategies (STKE) is expanding its validator infrastructure through additional formats, enabling it to monetize staking infrastructure across diverse client types:
  - White-label validators, which are fully managed nodes operated by STKE but branded under ecosystem
    partners. A notable example is Pudgy Penguins, the NFT-native brand, which runs a Pudgy-branded validator
    powered by STKE's backend—allowing community-driven staking while retaining infrastructure margins.
  - Co-branded institutional validators, tailored for regulated entities and combining the custody expertise of BitGo with the infrastructure capabilities of STKE. DigitalX, a listed digital asset manager, uses this structure to enable compliant staking on Solana. This model is considered co-branded as it explicitly involves two named counterparties – BitGo and SOL Strategies – jointly offering a solution suited to regulatory frameworks.
  - Validator-as-a-Service (VaaS), a model also gaining traction, where specialist operators like Everstake offer turnkey validator deployment, uptime management, and optimization, while external partners retain custody and provide the stake. These models reflect a strategic shift toward modular infrastructure monetization, where validator revenue scales with on-chain activity, throughput, and diverse client partnerships—not merely token price.

Chart 2: Validator Operating Models Across the Solana Ecosystem

| Model                     | Who Operates   | Who Owns Tokens                       | Revenue Source                         | Fueling Scale (SOL Under<br>Management)          |
|---------------------------|----------------|---------------------------------------|--|--|
| Owned Validators          | SOL Strategies | SOL Strategies                        | Full staking yield                     | ~435,064 SOL held as treasury by end-August 2025 |
| Delegated Stake           | SOL Strategies | Third-party delegators                | ~0.75% commission on delegated rewards | ~3.62 million SOL delegated to SOL<br>Strategies |
| White-label<br>Validators | SOL Strategies | Pudgy Penguins<br>(community stakers) | Infrastructure/service margins         | -  |

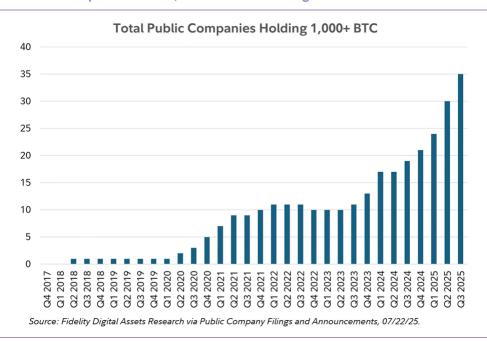
#### Sector Overview – The Rise of Digital Asset Treasury (DAT) Strategy

| Co-branded<br>Institutional<br>Validators | SOL Strategies &<br>Custody Partner<br>(BitGo) | Mixed (e.g. DigitalX via<br>BitGo custody) | Shared access/fees<br>through compliant<br>staking | - |
|---|--|--|--|---|
| Validator-as-a-<br>Service (VaaS)         | External provider (e.g., Everstake)            | Client-owned SOL                           | Setup + uptime + optimisation fees                 | - |

Source: Exec Edge Research

A favorable regulatory environment has also helped accelerate the institutionalization of the DAT strategy. A 2023 FASB accounting update (ASU 2023-08) – effective for fiscal years beginning after December 15, 2024 – permitted public companies to apply fair-value treatment to digital assets, removing a long-standing reporting friction. In 2024, the SEC's approval of spot Bitcoin ETFs validated BTC's role within mainstream financial infrastructure. At the same time, elevated geopolitical risk and persistent fiat currency volatility led more corporates to adopt Bitcoin as a reserve asset. Together, these shifts supported broader adoption of the DAT strategy and reinforced investor interest in DAT companies as listed vehicles for digital asset exposure. According to Fidelity Research, there has been a significant increase in the number of public companies holding 1,000+ BTC on their balance sheet, reaching 35 as of mid-2025, indicating that a growing number of companies are embracing BTC as a part of their long-term treasury strategy. Backing this institutional allocation to cryptos is rising corporate interest and confidence in this asset class – according to the Deloitte CFO Signals Q2 2025 survey, 99% of CFOs expect to use cryptocurrency long term, with ~40% of CFOs at \$10 billion+ revenue companies planning investment or payment use within two years.

Chart 3: Number of Public Companies With 1,000+ Bitcoin Holdings

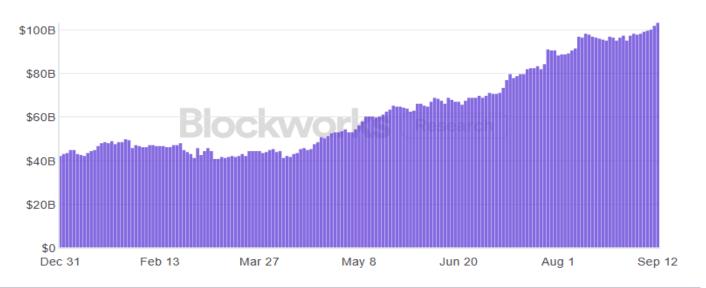


Source: Exec Edge Research, Fidelity

■ We believe institutional adoption and sustained capital formation position DAT companies as a structural segment of public crypto-financial markets. Institutional capital and public market interest in digital asset treasuries has reached unprecedented levels this year. As of July 2025, DAT companies collectively managed over \$100 billion in digital assets, including 791,662 BTC and 1.3 million ETH − representing 3.98% and 1.09% of circulating supply, respectively. Bitcoin-focused firms account for approximately \$93 billion in holdings, while Ethereum-centric players manage over \$4 billion, according to Galaxy Digital, with staking-aligned strategies accounting for an increasing share of treasury allocations as firms seek to balance asset appreciation with yield generation. The rise in institutional adoption of the DAT strategy is also reflected in the growing NAV of crypto treasury companies which has more than doubled since the beginning of the year. (See chart below.)

- A range of capital structures including public equity offerings, convertible notes, PIPEs, and de-SPAC mergers are now being deployed to fund long-term crypto treasury strategies, demonstrating capital markets' flexibility to support sustained digital asset accumulation. Convertible notes have become especially attractive: they offer downside protection via debt treatment with upside via equity linkage, and some are secured by crypto asset collateral, with high-demand issuers leveraging zero-coupon convertibles for rapid scaling.
- Strategy (MSTR) continues to lead this model by issuing equity, convertible debt, and more recently preferred shares to expand its BTC reserves. Twenty One Capital executed a \$3.6 billion de-SPAC backed by Tether and SoftBank, raising \$640 million in a PIPE secured by Bitcoin. SharpLink Gaming (SBET) raised \$425 million for an Ethereum-focused treasury strategy, while DeFi Development Corp. (DFDV) and Classover Holdings (KIDZ) announced multibillion-dollar raises targeting Solana-based treasuries. At the same time, investor appetite continues to deepen with an EY survey highlighting that 83% of institutional allocators expect to increase digital asset exposure in 2025, with 59% targeting more than 5% of AUM as DAT equities are emerging as a liquid, regulated entry point for crypto-aligned capital strategies.

**Chart 4: Crypto Treasury Companies: Aggregate NAV** 



Source: Exec Edge Research, Blockworks. Includes: BMNR, BTBT, BTCS, CEP, CEPO, CYFRF, DFDV, DYNX, GAME, HYPD, MSTR, SBET, SMLR, SQNS, and UPXI

- Our analysis shows that DAT companies like that are operating on scale and are generating revenue from other sources demonstrate the ability to better manage overhead expenses and fund their operations without impact token per share (TPS) growth. 2Q25 earnings data indicates that scale and durable operating cash flows are the primary determinants of sustainability across DATs.
  - Looking at BTC-focused names, we observe that bigger DAT companies like Strategy Inc. (MSTR) and Metaplanet (TYO:3350) have SG&A/Total Assets of less than 0.2% and their self-funding ratio, calculated as Revenue/SG&A, is >1x suggesting that they can pay their baseline overhead without the need to sell tokens.
  - ETH- and SOL-focused DAT companies can generate revenue from staking/validator yield which exceeds
    the SG&A/Total Assets, again indicating that they can generate staking rewards to cover overhead.
    - ETH names show stronger self-funding ratios despite higher cost intensity BTBT (1.29x), BTCS (1.87x), and BMNR (3.6x).
    - SOL names are a mixed bag with STKE (1.59x) and BTCM (1.34x) demonstrating the ability to self-fund while DFDV (0.37x) and SOL-CA (0.07x) demonstrating weaker self-funding ratios. (See chart below.)
  - Overall, we believe that the ability of larger companies to generate cash from their underlying business is a key differentiator in the DAT universe as it allows them to sustain their business operations and grow their DAT NAV without sacrificing TPS growth.

Chart 5: 2Q25 DAT Self-Funding & Overhead Metrics (BTC/ETH/SOL)

| Sl No | Ticker   | Company Name                   | Token Focus | Fiscal Period | Revenue (\$M) | SG&A (\$M) | Total Assets (\$M) | SG&A/Total<br>Assets (%) | Self Funding<br>Ratio (x) |
|-------|----------|--------------------------------|-------------|---------------|---------------|------------|--------------------|--------------------------|---------------------------|
| 1     | MSTR     | Strategy Inc.                  | BTC         | 2Q25          | 114.49        | 70.19      | 64,773.42          | 0.11%                    | 1.63x                     |
| 4     | TYO:3350 | Metaplanet Inc.                | BTC         | 2Q25          | 8.6           | 2.64       | 1,653.92           | 0.16%                    | 3.26x                     |
| 5     | DJT      | Trump Media & Technology Group | BTC         | 2Q25          | 0.88          | 29.17      | 3,247.26           | 0.90%                    | 0.03x                     |
| 6     | SMLR     | Semler Scientific              | BTC         | 2Q25          | 8.22          | 8.29       | 522.60             | 1.59%                    | 0.99x                     |
| 9     | EMPD     | Empery Digital (Volcon, Inc.)  | BTC         | 2Q25          | 0.7           | 3.5        | 17.94              | 19.51%                   | 0.20x                     |
| 10    | SQNS     | Sequans Communications S.A.    | BTC         | 2Q25          | 8.14          | 5.2        | 88.29              | 5.89%                    | 1.57x                     |
| 11    | BMNR     | BitMine Immersion Technology   | ETH         | 2Q25          | 2.05          | 0.57       | 8.27               | 6.89%                    | 3.60x                     |
| 12    | SBET     | SharpLink Gaming, Inc.         | ETH         | 2Q25          | 0.7           | 2.33       | 453.91             | 0.51%                    | 0.30x                     |
| 14    | BTBT     | Bit Digital                    | ETH         | 2Q25          | 25.32         | 19.67      | 723.42             | 2.72%                    | 1.29x                     |
| 16    | BTCS     | BTCS, Inc.                     | ETH         | 2Q25          | 2.77          | 1.48       | 40.81              | 3.63%                    | 1.87x                     |
| 18    | DFDV     | DeFi Development Corporation   | SOL         | 2Q25          | 1.99          | 5.36       | 107.23             | 5.00%                    | 0.37x                     |
| 19    | STKE     | Sol Strategies Inc.            | SOL         | 2Q25          | 1.76          | 1.11       | 86.81              | 1.28%                    | 1.59x                     |
| 21    | CSE: SOL | SOL Global Investments         | SOL         | 2Q25          | 0.15          | 2.04       | 10.28              | 19.84%                   | 0.07x                     |
| 22    | BTCM     | BIT Mining Limited             | SOL         | 2Q25          | 5.51          | 4.11       | 69.09              | 5.95%                    | 1.34x                     |
|       |          |                                |             |               |               |            |                    |                          |                           |

Source: Exec Edge Research, TIKR. Self-Funding Ratio = Revenue/SG&A.

■ Not all DAT companies are created equal, and we believe long-term winners will display scale, disciplined yield strategies, and efficient token deployment, while remaining resilient to structural vulnerabilities under stress. Top DAT companies display notable diversity in scale, token exposure, and market positioning. MSTR remains the sector's benchmark, leveraging a vast BTC balance with strong mNAV and consistent yield. Smaller BTC-focused players like Semler Scientific (SMLR) – which is set to be acquired by Strive (ASST) for \$1.3 billion – and Metaplanet (TYP: 3350) demonstrate high token value leverage, with Metaplanet's elevated yield reflecting aggressive treasury utilization. SOL-focused entities such as DeFi Development Corp (DFDV) and SOL Strategies (STKE) exhibit substantial token balances but face higher volatility in valuation metrics. ETH-oriented firms like BTCS Inc. offer comparatively lower yields yet maintain structural exposure to network growth. Across the peer set, disparities in enterprise value, P/E ratios, and token yield highlight that not all DAT companies are equally positioned for sustainable capital efficiency or investor appeal.

Chart 6: MSTR is the 800-Pound Gorilla, but Other DAT Winners Are Emerging, too

| DAT KPI                          | Winners/Leading Names  |
|----------------------------------|--|
| Tokens Per Share (TPS)           | <ul> <li>MSTR, despite having tokens valued at ~\$75B, has the highest TPS amongst BTC-focused DATs</li> </ul> |
|                                  | - Among SOL-focused DAT companies, DFDV has a very high headline TPS of 0.0793                                 |
| Token Yield                      | - Metaplanet (TYO: 3350) reports 465.7% token yield, benefitting from its leadership in Japan                  |
|                                  | - SOL Strategies (STKE) and DFDV standout with 10% APY yield staking and validator services                    |
| NAV Accretion Model Efficiency   | - UPXI's SOL per share rose from 0.01228 to 0.02906, a 137% increase in SOL per share despite ~4.5% dilutior   |
|                                  | post \$200+ million capital raise and SOL purchase   |
| Access to Capital                | - MSTR can still raise \$50B+ under its 42/42 capital raise plan through 2027                                  |
|                                  | - Metaplanet accesses low-cost funds by leveraging a multi-faceted strategy. Looking to raise \$880m, with     |
|                                  | \$835M allocated for fresh BTC purchase.   |
|                                  | - SOL Strategies can raise up to \$1B – it has already filed the base shelf prospectus in May 2025             |
| mNAV Premium/Discount            | - MSTR has sustained a mNAV of ~>1.5x over the long term and especially while raising funds                    |
|                                  | - GME's ~20x mNAV makes it the most valuable DAT on this metric  |
|                                  | - BTCM with mNAV of 4.9x is the leading SOL-focused DAT  |
| Equity Dilution Potential        | - DFDV demonstrated TPS gains despite dilution after its \$19.2M capital raise in July 2025                    |
| Overhead/Cost Structure          | - MSTR has a cost ratio of just ~0.10%, thanks to its scale and cash flow from operating business              |
|                                  | - BMNR's self-funding ratio of 3.6x gives its ample cushion to fund opex from staking revenue                  |
| Token/Opex Efficiency Ratio      | - MSTR's five-year opex at \$750M, translates into a Token-to-Opex Efficiency Ratio 13.5x                      |
|                                  | - SOL Strategies \$25M opex since 2024 and token accumulation of \$200M  |
| Custodian Risk                   | - SMLR employs Coinbase and NYDIG Trust as leading third-party custodians                                      |
|                                  | - UPXI employs Coinbase and BitGo as their custodian partners  |
| Custody/Treasury Management Fees | - BTCS and BTCM benefit from self-custodian model by not having to pay custodian fees                          |

Source: Exec Edge Research based on multiple web sources.

## Sector Overview - The Rise of Digital Asset Treasury (DAT) Strategy

**Chart 7: Top DAT Players** 

| Sl No | Ticker   | Company Name                                    | Token Focus | Share Price (\$) | Market Cap (\$M) | Token Balance | Token Value (\$M) | mNAV (x) | Token Per Share (x) | Token Yield |
|-------|----------|---|-------------|------------------|------------------|---------------|-------------------|----------|---------------------|-------------|
| 1     | MSTR     | Strategy Inc.                                   | ВТС         | 331.44           | 94,680.89        | 638,460       | 74,636.0          | 1.27     | 0.0022350           | 25.40%      |
| 2     | CEP      | Cantor Equity Partners/Twenty One<br>Capital    | BTC         | 21.08            | 7,820.68         | 43,514        | 5,086.8           | 1.54     | 0.0001173           | NA          |
| 3     | CEPO     | Cantor Equity Partners I/BSTR<br>Holdings Inc.  | BTC         | 10.42            | 843.60           | 30,021        | 3,509.5           | 0.24     | 0.0003708           | NA          |
| 4     | TYO:3350 | Metaplanet Inc.                                 | BTC         | ¥591.00          | ¥446,765.55      | 20,136        | 2,353.9           | 1.75     | 0.0000266           | 465.70%     |
| 5     | DJT      | Trump Media & Technology Group                  | ВТС         | 16.99            | 4,707.38         | 15,000        | 1,753.5           | 2.68     | 0.0000541           | NA          |
| 6     | SMLR     | Semler Scientific                               | BTC         | 29.19            | 432.15           | 5,021         | 587.0             | 0.74     | 0.0003393           | 31.30%      |
| 7     | CCCM     | Columbus Circle Capital Corp. I /<br>ProCap BTC | ВТС         | 10.18            | 348.05           | 4,932         | 576.6             | 0.60     | 0.0001443           | NA          |
| 8     | GME      | GameStop Corp.                                  | BTC         | 24.93            | 11,160.33        | 4,710         | 550.6             | 20.27    | 0.0000105           | NA          |
| 9     | EMPD     | Empery Digital (Volcon, Inc.)                   | BTC         | 7.08             | 336.31           | 4,081         | 477.1             | 0.70     | 0.0000859           | NA          |
| 10    | SQNS     | Sequans Communications S.A.                     | BTC         | 0.99             | 142.46           | 3,205         | 374.7             | 0.38     | 0.0000224           | NA          |
| 11    | BMNR     | BitMine Immersion Technology                    | ETH         | 55.09            | 9,557.95         | 2,069,443.0   | 9,658.1           | 0.99     | 0.0119276           | NA          |
| 12    | SBET     | SharpLink Gaming, Inc.                          | ETH         | 17.70            | 3,435.00         | 837,200       | 3,907.2           | 0.88     | 0.0043139           | 2.31%       |
| 13    | DYNX     | Dynamix Corporation (Ether Machine)             | ETH         | 10.92            | 241.70           | 495,362       | 2,311.9           | 0.10     | 0.0223842           | 3.15%       |
| 14    | ВТВТ     | Bit Digital                                     | ETH         | 2.97             | 954.27           | 121,252       | 565.9             | 1.69     | 0.0003774           | 3.10%       |
| 15    | ETHZ     | Ethzilla, (180 Life Sciences Corp.)             | ETH         | 2.55             | 419.29           | 102,246       | 477.2             | 0.88     | 0.0006218           | NA          |
| 16    | BTCS     | BTCS, Inc.                                      | ETH         | 4.79             | 230.17           | 70,140        | 327.3             | 0.70     | 0.0014597           | 4.20%       |
| 17    | UPXI     | Upexi, Inc.                                     | SOL         | 6.76             | 384.31           | 2,018,419     | 492.0             | 0.78     | 0.0354793           | 8.00%       |
| 18    | DFDV     | DeFi Development Corporation                    | SOL         | 17.59            | 446.32           | 2,027,817     | 494.3             | 0.90     | 0.0799297           | 10.00%      |
| 19    | STKE     | Sol Strategies Inc.                             | SOL         | 7.37             | 164.94           | 435,064       | 106.1             | 1.40     | 0.0195622           | 10.00%      |
| 20    | KIDZ     | Classover Holdings, Inc.                        | SOL         | 1.40             | 33.16            | 57,131        | 13.9              | 2.38     | 0.0024116           | NA          |
| 21    | CSE: SOL | SOL Global Investments                          | SOL         | C\$0.06          | C\$12.65         | 29,858        | 7.3               | 1.49     | 0.0001298           | 6.26%       |
| 22    | BTCM     | BIT Mining Limited                              | SOL         | 2.98             | 53.16            | 44,412        | 10.8              | 4.91     | 0.0024895           | NA          |
|       |          |   |             |                  |                  |               |                   |          |                     |             |

Source: Exec Edge Research, TIKR. CEP is pending merger with Twenty One Capital Inc. (XXI); CEPO is pending merger with Bitcoin Standard Treasury Company (BSTR); CCCM is pending merger with ProCap BTC. Stock price data as of 9/12. Token yield measures the growth in tokens held per share over a period, calculated as the change in tokens per share divided by the time elapsed. Token yield for BTC-focused DATs are on YTD basis, for SOL- and ETH-based DATs token yield reflects APY staking yields.

# The Metrics That Matter for Investors Evaluating DAT Investments

- As adoption of the DAT strategy widens, we believe that investors need a structured framework that enables them to distinguish sustainable, capital-efficient models from speculative, momentum-driven enterprises. As listed DAT platforms mature and become more sophisticated, relying simply on token price beta no longer delivers a credible investment thesis. Institutional grade analysis now demands a robust KPI architecture one that reveals genuine value creation, capital allocation precision, and treasury management resilience beyond headline volatility. As a result, we believe investors should adopt a cluster-based evaluation framework that facilitates disciplined comparisons and prioritizes the metrics most indicative of per-share NAV growth and downside resilience.
- To meet the above need, we have developed a framework centered on three analytical clusters Capital Efficiency & Value Accretion, Valuation & Market Sentiment, and Cost Efficiency & Operational Risk and 10 core sector KPIs that we believe should form the bedrock of modern DAT diligence. Each cluster unlocks unique insight into management discipline, capital structure agility, and operational safeguards, collectively determining whether NAV accretion is achieved or eroded through dilution and mispricing.
  - In an environment of NAV volatility, narrowing issuance windows, and mounting skepticism toward equity-linked token vehicles, investors are best served by prioritizing KPIs within these clusters. We believe this approach systematically filters robust, accretive treasury models from transient, momentum-dependent stories. The following sections break down each category defining metrics, outlining value, and presenting analytical tactics for institutional investors and portfolio managers seeking durable outperformance in the DAT segment.

Chart 8: Exec Edge's KPI Cluster Map for Evaluating DAT Company Fundamentals

| Analytical Domain                       | Core KPIs   | Importance   |
|---|---|--|
| Capital Efficiency & Value<br>Accretion | <ul><li>Token Per Share</li><li>Token Yield</li><li>NAV Accretion Model Efficiency</li><li>Access to Capital</li></ul>                        | Assesses whether capital raised and deployed translates into sustainable token-per-share growth, balancing dilution risk with the ability to scale holdings. |
| Valuation & Market Sentiment            | - mNAV Premium/Discount - Equity Dilution Potential   | Anchors enterprise value to underlying digital assets and identifies strategic issuance windows or NAV premium risks.  |
| Cost Efficiency & Operational<br>Risk   | <ul><li>Overhead/Cost Structure</li><li>Token/Opex Efficiency Ratio</li><li>Custodian Risk</li><li>Custody/Treasury Management Fees</li></ul> | Evaluates operating discipline, treasury efficiency, and custody safeguards to ensure NAV preservation and long-term resilience.                             |

Source: Exec Edge Research

#### **Capital Efficiency & Value Accretion KPIs**

- The Capital Efficiency & Value Accretion cluster evaluates how effectively a DAT company converts new capital into incremental digital asset holdings on a per-share basis. It reflects management's ability to expand token exposure while balancing dilution risk and securing reliable access to funding key to driving sustainable NAV growth. Benchmarking against peers and passive vehicles, such as ETFs, highlights capital allocation discipline and execution quality, essential for sustained equity value creation amid market volatility and fluctuating sentiment. KPIs in this category focus on tokens per share, token yield, NAV accretion model efficiency, and access to capital core indicators of whether capital formation efforts are truly shareholder-accretive or structurally erosive over time.
- KPI #1: Token Per Share (TPS). This KPI measures the number of underlying digital assets (such as BTC or ETH) attributable to each outstanding share and serves as a transparent, crypto-native analogue to NAV per share, directly linking equity to token reserves. It isolates the economic exposure of shareholders to the company's token treasury adjusted for dilution and reflects whether token accumulation efforts (via equity raises, operational staking, or reinvestment) are being distributed accretively across the shareholder base. Unlike headline treasury size or market

cap, it links token ownership directly to equity participation, highlighting dilution risk, treasury scaling effectiveness, and alignment with shareholders.

A rising TPS signals capital discipline and accretion; a decline, especially post-raise, may imply dilution.
 This metric helps assess entry/exit points, identify overvalued DAT equities, and compare peer execution.
 Sustained strength during market downturns reinforces confidence in management and balance sheet quality.
 For investors, it is a key indicator of capital efficiency and long-term equity value.

Case Study: Strategy Inc. (MSTR) – TPS Growth. MSTR has delivered over 250% growth in token per share since 2020, from 0.00057 to nearly 0.002 by July 2025. With TPS up 25% year-to-date, the company raised its internal targets to a 30% token yield and \$20 billion in BTC gains. This sustained per-share accumulation (despite rising share count) has been rewarded by investors, with the stock climbing from \$38 to nearly \$395, reflecting market confidence in its capital discipline and treasury strategy.

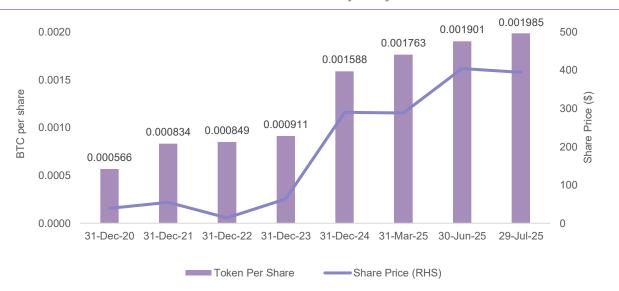
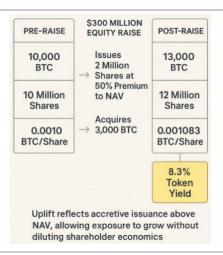


Chart 9: MSTR's Share Price and Token Per Share Growth Trajectory

Source: Exec Edge Research, MSTR website. Based on diluted shares outstanding.

- **KPI #2: Token Yield.** This reflects how effectively a company's capital strategy converts market premium into incremental token ownership per share and is a key metric to monitor while assessing DAT companies. The KPI measures the growth in token per share for a DAT company over a specific period and hinges on the company's ability to raise equity at a premium to NAV and reinvest proceeds into digital assets at market prices. A consistently high yield indicates the company is efficiently exploiting its mNAV premium to scale its treasury in a shareholder-accretive manner. However, as premiums narrow and competition intensifies, yield compresses, emphasizing the cyclical, opportunity-driven nature of this metric.
  - Token yield gauges how effectively a company grows token exposure per share. Sustained positive yield signals disciplined capital deployment without dilution, and strong performance vs. peers or cycles can mark attractive entry points. However, high yields on small bases can mislead. For deeper insight, investors should pair this with absolute token gains and NAV growth to identify capital-efficient DATs with scalable, durable value creation. In case of SOL and ETH holdings, DAT companies also earn staking yield.
  - Illustration: Consider a DAT company holding 10,000 BTC and 10 million diluted shares (0.0010 BTC/share). It raises \$300 million by issuing 2 million shares at a 50% premium to NAV and uses the proceeds to acquire 3,000 BTC. Post-raise, it holds 13,000 BTC and 12 million shares, lifting BTC/share to 0.001083, or an 8.3% token yield. This uplift reflects accretive issuance above NAV, allowing exposure to grow without diluting shareholder economics.

Chart 10: Token Yield - An Illustration



Source: Exec Edge Research

MSTR's 25% Token Yield: As of July 29, 2025, Strategy (MSTR) has grown its token per share from 0.001588 at year-end 2024 to 0.001985, an increase of 0.000397. When expressed as a percentage of the token per share at the start of the year, this translates to a 25.0% token yield. This uplift was achieved through strategic equity and preferred share issuances – executed at a valuation premium – and immediate reinvestment into Bitcoin, expanding the company's holdings from 447,470 BTC to 628,791 BTC. The result: per-share token exposure increased despite a 12% rise in diluted shares outstanding, reflecting accretive treasury expansion and effective deployment of DAT flywheel mechanics.

- KPI #3: NAV Accretion Model Efficiency. Understanding how effectively a DAT company converts capital market actions into per-share NAV growth is critical and this KPI helps in that assessment. This KPI is key to assessing the viability of the mNAV arbitrage model, where companies trading at a premium to NAV (mNAV>1) issue new shares and use the proceeds to acquire digital assets at market prices, while companies trading at a discount (mNAV<1) can sell tokens to fund share repurchases. In both cases, disciplined execution can expand tokens per share, with efficiency depending on the size of the premium or discount, timing of the action, and the ability to manage operational and custodial costs. NAV Accretion Model Efficiency is calculated by dividing the change in NAV per share (post-action − pre-action) by the total capital deployed over the period, illustrating how much incremental net asset value per share a DAT company generates for each dollar of equity or debt capital mobilized. When executed well, this model results in treasury expansion without shareholder dilution and directly increases per-share NAV. In contrast, poorly timed or excessive issuance or buybacks can erode value and dilute NAV accretion.
  - Unlike passive NAV-tracking ETFs, which are limited to simple buy-and-hold exposure (where NAV per share moves only with token price and sees minimal accretion from capital flows), DAT's mNAV arbitrage model can accelerate the expansion of both its token holdings and NAV per share, provided market conditions and financing access remain intact. The efficiency of this model depends on a well-structured capital markets toolbox including at-the-market (ATM) programs, share buybacks, and adequate trading liquidity which allows disciplined DATs to deliver compounding per-share growth above what any passive vehicle can achieve.

Case Study: Upexi's (UPXI) hybrid capital raise delivered exceptional NAV accretion efficiency. In mid-2025, UPXI executed a \$200 million capital raise through a hybrid structure combining equity and in-kind SOL-backed convertible notes. This approach significantly expanded its Solana treasury from approximately 735,692 SOL to over 1.8 million SOL within weeks, with holdings surpassing 2 million SOL by early August. Prior to the raise, UPXI had around 59.9 million shares outstanding, which increased to approximately 62.6 million post-transactions. Despite this ~4.5% dilution, SOL per share rose from 0.01228 to 0.02906, a 137% increase in SOL per share. This substantial per-share accretion confirms the efficiency of UPXI's NAV arbitrage model as capital was raised at a valuation premium and converted into token holdings at market or in-kind pricing, materially enhancing shareholder value.

- KPI #4: Access to Capital. This KPI reflects a DAT company's ability to raise funds consistently, selectively, and at low cost. It is a forward-looking KPI that captures market trust in the firm's capital strategy and the structural advantages that enable sustained treasury expansion without compromising shareholder value. DATs typically raise capital through common equity offerings (e.g., ATM programs), convertible notes, and increasingly structured preferred shares offering yield-linked Bitcoin exposure. Unlike passive vehicles such as ETFs, DATs rely on active capital formation to accumulate and compound token reserves, making capital access fundamental to treasury expansion.
  - This KPI also captures the timing, cadence, and structure of prior raises, indicating whether capital was secured during favorable valuation windows or under distressed conditions. Repeated equity issuance during compressed premium periods may flag governance risk or strategic missteps. Conversely, disciplined capital access enables BTC per-share accretion and strategic flexibility across market cycles. Metaplanet (TYO: 3350) accesses low-cost funds by leveraging a multi-faceted strategy, including international equity offerings, stock option exercises, and potentially future debt issuance, to finance its core objective of acquiring and holding Bitcoin. It has recently approved a plan to raise \$880 million through an overseas share issuance, with ~\$837 million allocated for fresh BTC purchases. Similarly, Strategy (MSTR) plans to raise \$84 billion by 2027 through a combination of equity and debt offerings, with approximately \$50 billion still available to be raised, utilizing capital raises through common equity and structured preferred shares.

Companies in Focus: Metaplanet (TYO: 3350), Strategy (MSTR)

A way to evaluate this KPI is to look at historical and YTD capital raise data by the company. When assessed by total proceeds, frequency, and instrument type, this data offers insight into a company's financial agility, investor confidence, and growth capacity without excessive dilution. A key consideration is the weighted average cost of capital (WACC) as companies raising capital above NAV can expand tokens reserves per share and drive long-term NAV accretion. DATs use varied instruments depending on market conditions and investor appetite (see comparison below):

Chart 11: Capital Markets Instruments and Strategic Use in DAT Companies

| Instrument Type                 | Key Advantage   | Example(s)   | Strategic Use Case   |
|---------------------------------|---|--|--|
| Common Equity                   | Minimizes dilution when trading at a significant premium to NAV   | MSTR's Class A<br>common stock ATM<br>offering     | Raise equity during high mNAV premiums to maximize value capture                                   |
| Structured<br>Preferred Shares  | Provides perpetual yield and attracts institutional income-focused investors                                  | MSTR's STRF, STRD                                  | Broaden investor base while securing long-term, non-dilutive capital                               |
| Equity Lines of Credit (ELOCs)  | Enables phased capital raising, reducing pricing pressure   | DFDV's Equity Line for incremental SOL funding     | Maintain flexibility and avoid large, market-moving issuances                                      |
| Convertible Debt Facilities     | Unlocks larger-scale funding, often collateralized by token treasury, while maintaining strategic flexibility | SOL Strategies' (STKE) convertible credit facility | Fund treasury expansion or buybacks without selling tokens directly, preserving long-term holdings |
| At-the-Market<br>(ATM) Programs | Opportunistic issuance during favorable mNAV windows, improving capital efficiency                            | STRK   | Align capital raises with premium valuations to optimize proceeds                                  |
| Buybacks                        | Reduces share count, increases tokens per share, signals management confidence                                | SBET's 2025 \$1.5 billion buyback authorization    | Repurchase shares during discount regimes, enhancing TPS accretion                                 |

Source: Exec Edge Research

#### **Valuation & Market Sentiment KPIs**

- The Valuation & Market Sentiment KPI cluster captures the dynamic between a DAT company's trading price and its underlying NAV, as well as the influence of liquidity and equity market conditions. Unlike traditional asset managers or passive ETFs, DATs frequently trade at premiums or discounts to NAV, reflecting collective investor sentiment, perceived management skill, and prevailing risk appetite. This cluster aggregates metrics like equity dilution potential and mNAV premium/discount to NAV. These factors enable investors to identify periods of mispricing, anticipate changes in capital access or fundraising effectiveness, and distinguish structurally robust treasuries from those buoyed primarily by bullish sentiment or speculative flows.
- **KPI #5: mNAV Premium/Discount**. It is a critical and widely used KPI that provides insight into valuation accuracy, capital market sentiment, and management execution quality. Market Net Asset Value (mNAV) represents the ratio between the DAT company's total market capitalization and the net asset value (NAV) of its digital asset holdings, plus any liquid cash on the balance sheet. Formally, mNAV is calculated as:

$$mNAV = \frac{Market\ Capitalization}{BTC\ NAV + Cash}$$

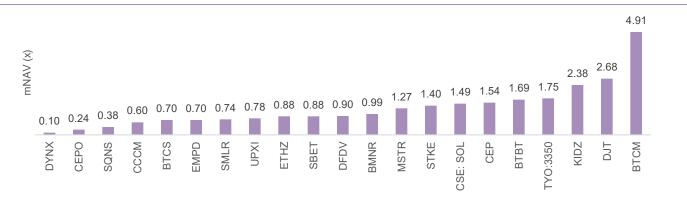
where "BTC NAV" is the total dollar value of bitcoin held (BTC treasury multiplied by current BTC price), and "cash" reflects available liquid assets. This multiple reflects the market's valuation of the equity relative to the underlying asset base, offering investors a comprehensive view of whether the company's shares trade at a premium or discount to the intrinsic net asset backing.

- An mNAV > 1 (premium) indicates market confidence in the firm's ability to compound NAV through efficient capital deployment, disciplined issuance, and value-accretive treasury strategies. Investors may be paying above NAV for execution quality, future growth, or exclusive exposure to institutional-grade token strategies. Conversely, an mNAV < 1 (discount) suggests concerns about dilution risk, weak management, or bearish sentiment.</p>
  - Leading DATs like Strategy (MSTR) issue equity only when trading well above NAV – historically in the ~2.0x–4.0x mNAV range – to ensure accretive capital formation and protect shareholder value. This approach powers the capital flywheel, where capital raised at a premium funds BTC purchases, increasing NAV per share without proportionate dilution, a key differentiator from passive ETFs.

Company in Focus: Strategy (MSTR)

Unlike ETFs with built-in redemption arbitrage mechanisms that tether to NAV, DAT stocks (e.g., MSTR, Metaplanet) exhibit free-floating mNAV multiples, shaped by sentiment, issuance signals, regulation, and BTC acquisition tactics. For example, MSTR's mNAV has ranged from 1.5x to nearly 4.0x, depending on capital market conditions, investor appetite, and strategic execution. Issuing shares near 1.0x mNAV can erode per-share NAV, while disciplined issuance at elevated premiums drives efficient treasury scaling.

**Chart 12: mNAV Comparison of Key Players** 



Source: Exec Edge Research, TIKR, CEP is pending merger with Twenty One Capital Inc. (XXI); CEPO is pending merger with Bitcoin Standard Treasury Company (BSTR); CCCM is pending merger with ProCap BTC, Stock price data as of 9/12.

**Investment Use Case:** mNAV Premium/Discount is a key signal for timing entries in DAT equities. Premiums suggest strong capital access and possible issuance opportunities; discounts may reflect undervaluation or governance risks. Monitoring this KPI helps assess pricing gaps, dilution risk, and capital efficiency. Active investors can trade premium shifts, while long-term allocators use trends to gauge management discipline and market confidence in volatile cycles

- KPI #6: Equity Dilution Potential. This KPI helps assess the risk that shareholders may experience a decline in their ownership and token exposure as new shares are issued to fund treasury expansion. Since equity raises are central to DAT capital formation, dilution becomes a critical determinant of long-term value capture and shareholder alignment. Many DATs have historically expanded their share base rapidly, especially during periods of elevated mNAV premiums. The frequency and magnitude of these issuances reflect management discipline as aggressive dilution during compressed premium cycles may signal poor alignment, while strategic issuance at high premiums supports accretive treasury scaling.
  - Forward-looking dilution risk is evaluated through shelf registrations, equity line authorizations, active at-the-market (ATM) programs or PIPE transactions. While shelf and ATM programs allow gradual issuance, PIPEs often create a sharp supply/demand imbalance, particularly in small, illiquid DATs, where large private placements can overwhelm market liquidity and severely pressure share prices once shares become registered. Evaluating this pipeline against historical behavior and stated capital strategy can allow investors to assess structural issuance pressure.

Case Study: BitMine Immersion Technologies (BMNR) – PIPE and Shelf Shock. On July 9, 2025, BitMine Immersion Technologies (BMNR) executed a \$250 million PIPE transaction to fund its ETH treasury strategy, aiming to establish itself as a DAT company. At the same time, the company filed a registration statement to sell up to \$2 billion in additional securities to support further accumulation. The combined effect of these actions was immediate and severe. The PIPE shares, once registered, became freely tradable and flooded an illiquid market, while the \$2 billion filing signaled the potential for massive further dilution. Together, these catalysts drove the stock down 39% by close and 53% intraday. BMNR subsequently announced a stock buyback program in an attempt to absorb excess supply and stabilize trading. This case illustrates how even strategically motivated capital raises for treasury expansion can backfire if structured or communicated poorly. Simultaneous execution and signaling of large-scale issuance can overwhelm demand, erode shareholder value, and force reactive measures such as buybacks.

- Best-in-class DATs adopt disciplined frameworks, such as issuing equity only above a threshold mNAV multiple, to ensure shareholder accretion. Transparency in issuance cadence, alignment with NAV premiums, and control over share count expansion are essential to protecting long-term NAV per share. Investors should favor firms that raise capital only at strong NAV premiums.
- Forward-looking dilution risk also encompasses management incentives, including stock-based compensation and other structural programs such as convertible instruments. While the timing of exercises is partially outside management's control, these incentives can meaningfully expand the share base, making their evaluation critical to assessing true shareholder dilution risk. Evaluating both past and potential dilution helps identify capitalefficient DATs aligned with long-term shareholder value.

Case Study: DeFi Development Corp. (DFDV) – Per share token gains despite dilution. In July 2025, DeFi Development Corp. (DFDV) issued ~740,000 shares via its Equity Line of Credit (ELOC), raising about \$19.2 million, representing a 3.8% increase in shares outstanding, from 19.45 million to 20.19 million. Despite this dilution, DFDV's Solana per Share (SPS) rose from 0.0514 to 0.0575, a ~12% increase, driven by a strategic purchase of 181,303 SOL (bringing total holdings to 1,182,685 SOL, valued at ~\$218 million). This performance underscores strong NAV accretion, as the addition of over 182,000 SOL translated into increased token exposure per share, even with added dilution.

#### **Cost Efficiency & Operational Risk KPIs**

- The Cost Efficiency & Operational Risk cluster evaluates how effectively a DAT company balances operating discipline with custodial safeguards to preserve and grow net asset value. This cluster integrates both internal cost structures and external counterparty exposures, providing a comprehensive view of operational resilience. Key KPIs include Overhead/Cost Structure, which measures the sustainability of recurring corporate expenses; the Token-to-Opex Efficiency Ratio, which captures the extent to which token holdings or yields offset operating costs; Custodian Risk, which reflects the degree of concentration or reliance on third-party custody providers; and Custody/Treasury Management Fees, which assess the transparency and cost impact of custody arrangements. Together, these indicators help investors determine whether a DAT company can scale responsibly, avoid excessive leakage of value through inefficient overhead or external fees, and maintain robust safeguards around its treasury assets in volatile market conditions.
- KPI #7: Overhead/Cost Structure. This KPI reflects a DAT company's cost efficiency and yield advantage compared to the corresponding ETFs. A key structural advantage of DAT companies like MSTR over Bitcoin ETFs lies in how they manage cost efficiency and unlock yield from their treasuries, factors that significantly influence long-term investor returns. Bitcoin ETFs such as iShares Bitcoin Trust (IBIT), Fidelity Wise Origin Bitcoin Fund (FBTC), and Grayscale Bitcoin Trust ETF (GBTC) typically charge a fixed annual management fee of 0.25%+ of assets under management (AUM). This represents a perpetual cost leakage that compounds over time and investors in these ETFs continuously surrender a portion of their upside through these recurring fees, leading to structural NAV erosion.
  - In contrast, DAT companies like MSTR do not charge a percentage-based management fee. Instead, they operate with a fixed operating cost primarily general and administrative expenses at ~\$70-million for 2Q25. When benchmarked against MSTR's total BTC holdings (~\$75 billion as of 9/12), this translates to an effective cost ratio of just ~0.10%, significantly lower than the 0.25% fee charged by most Bitcoin ETFs. Beyond cost savings, DATs such as MSTR can also generate incremental yield through strategic financial operations. Notably, MSTR has implemented a covered call option program on its Bitcoin holdings, which produces premium income that offsets operating costs. This capability effectively reduces the net cost of holding Bitcoin through MSTR, enhancing shareholder value. Other DAT companies with low-cost structures include BMNR and SEBT.

Chart 13: DAT Companies Offer Cheaper Exposure to Digital Assets Compared to ETFs

| Ticker   | Company Name                        | Token Focus | SG&A as % of Token<br>Value | Ticker  | ETF Name                          | ETF Fee |
|----------|-------------------------------------|-------------|-----------------------------|---------|-----------------------------------|---------|
| BMNR     | BitMine Immersion Technology        | ETH         | 0.01%                       | BITB-US | Bitwise Bitcoin ETF Trust         | 0.20%   |
| SBET     | SharpLink Gaming, Inc.              | ETH         | 0.06%                       | HODL-US | Vaneck Bitcoin ETF*               | 0.20%   |
| MSTR     | Strategy Inc.                       | ВТС         | 0.10%                       | ARKB-US | ARK 21Shares Bitcoin ETF          | 0.21%   |
| DYNX     | Dynamix Corporation (Ether Machine) | ETH         | 0.11%                       | IBIT-US | iShares Bitcoin Trust ETF         | 0.25%   |
| TYO:3350 | Metaplanet Inc.                     | BTC         | 0.12%                       | FBTC-US | Fidelity Wise Origin Bitcoin Fund | 0.25%   |

Source: Exec Edge Research, TIKR, Company Websites. \*Vaneck Bitcoin ETF presently charges 0% fee, however, it will be raised to 0.20% if the AUM exceeds \$2.5 billion or after January 10, 2026 – which ever happens earlier.

- Further, as discussed earlier, DAT companies that are operating on scale and are generating revenue from other sources demonstrate the ability to better manage overhead expenses and fund their operations without impacting TPS growth. Strategy Inc. (MSTR) and Metaplanet (TYO:3350) have SG&A/Total Assets of less than 0.2% and their self-funding ratio, calculated as Revenue/SG&A, is >1x suggesting that they can pay their baseline overhead without the need to sell tokens. When paired with strategic programs and disciplined capital management, such operational efficiency allows these DAT companies to sustain NAV expansion, generate incremental yield, and differentiate themselves from other DAT names.
- KPI #8: Token/Opex Efficiency Ratio. This KPI reflects how DAT companies convert operating spend into coin exposure. Unlike ETFs, which passively hold tokens and apply a recurring fee to AUM, DAT companies generate exposure through retained earnings, capital allocation, and treasury strategies. The resulting efficiency ratio reflects how many dollars' worth of token assets have been acquired for every dollar spent on corporate overhead.

- This dynamic offers a compelling benchmark when viewed through the lens of Strategy (MSTR). As of June 30, 2025, the company held 628,791 BTC, acquired through a combination of equity and debt financing. Over the five-year period from 2020 to 2025, cumulative operating expenses are estimated at ~\$700-\$750 million, translating into a Token-to-Opex Efficiency Ratio of roughly 13.5-14.0x. This means the company has accumulated \$13.50-\$14.00 in BTC value for every dollar spent on ongoing operations. Because operating costs have remained largely stable (averaging \$120-\$150 million annually), the efficiency ratio improves over time, particularly as BTC appreciates, making the DAT model structurally scale-efficient.
- A similar pattern is emerging at SOL Strategies Inc. (STKE), a validator-based DAT company that manages a Solana-focused treasury. Since executing its strategic pivot in 2024, STKE has accumulated token assets valued at ~\$200 million, with estimated operating costs of \$25 million over the same period, resulting in a Tokento-Opex Ratio of ~8x. This high level of efficiency is not only a function of lean operations and automated reward infrastructure but is further reinforced by the compounding growth generated through validator activities. With ~435,000 SOL held in treasury (~\$106 million) and earning the network-average staking yield of ~7.41%, STKE generates roughly \$7.8 million annually in organic growth from its own assets. In parallel, ~3.47M SOL (~\$692M) is delegated to its validators, on which even a modest ~0.7% commission yields an additional \$4.8 million per year. Together, these streams equate to ~\$13 million in annualized value creation, nearly 2x the growth profile of a staking-only DAT and far beyond BTC DATs, which rely solely on token appreciation without organic yield.

Company in Focus: SOL Strategies Inc. (STKE)

In contrast, spot Bitcoin ETFs such as IBIT or FBTC maintain no reinvestment mechanism. Fee structures
of 0.20-0.25% annually are deducted directly from AUM, resulting in a Token-to-Opex Efficiency Ratio of zero.
These fees not only compound over time but also scale with asset growth, creating structural drag. As a result,
ETFs deliver no new token exposure beyond initial capital.

Chart 14: MSTR – Unlocking Shareholder Value Through Cost and Token Efficiency

| MSTR Overhead                      | / Cost Structure                  | MSTR Token / Op                  | ex Efficiency Ratio            |
|------------------------------------|-----------------------------------|----------------------------------|--------------------------------|
| Metric                             | Value                             | Metric                           | Value                          |
| Annual Operating Cost              | \$120–150 million                 | Cumulative Opex (2020–25)        | USD 700–750 million            |
| Total BTC Holdings (mid-2025)      | >\$70 billion                     | Total BTC Holdings<br>(mid-2025) | 628,791 BTC                    |
| Effective Cost Ratio*              | ~0.17% vs 0.25% ETF fee           | Efficiency Ratio                 | 13.5x–14.0x                    |
| MSTR Cost Trend                    | Declines as BTC appreciates       | Value per \$1 Opex               | USD 13.50-14.00 BTC value      |
| Structural Advantage Over ETF Fees | Fixed cost, scales with BTC value | Trend                            | Improves with BTC appreciation |

Source: Exec Edge Research. \*Effective Cost Ratio is based on annual operating costs.

- **KPI #9: Custodian Risk.** This KPI reflects how DAT companies govern asset custody, operational access, and legal control frameworks. Custodian risk is a core operational and legal exposure for DAT companies, as control over private keys directly governs control over tokenized assets. Unlike traditional financial instruments, digital tokens are bearer assets meaning possession of the private key equates to ownership. As such, custody is not a passive or technical function; it is a strategic pillar of capital protection, auditability, and long-term operational resilience.
  - Custodian risk spans the entire lifecycle of key management, from initial generation and storage, to backup, rotation, transaction approval, and eventual key revocation and a compromise at any point in this chain can result in irreversible asset loss. These vulnerabilities are operational, procedural, and legal. Many custody arrangements fail to provide robust client protections in the event of custodian insolvency. In such scenarios, clients may be treated as unsecured creditors with no enforceable claim on the underlying digital assets unless

- segregation is explicitly mandated. Ambiguities in terms and conditions may also permit custodians to reuse, lend, or co-mingle client assets creating material counterparty and contagion risk.
- Self-Custodian Models Strategic Control vs. Operational Burden. For some DAT companies, becoming their own custodian can serve as a strategic safeguard against third-party counterparty risks. However, this approach transfers the full operational, technical, and compliance burden onto the company. The governance framework must include institutional-grade security architecture, typically cold storage with multisignature or MPC controls, geographic redundancy, continuous SOC monitoring, and independent audit validation. Without such rigor, self-custody can amplify rather than reduce risk. SOL Strategies Inc. (STKE), for instance, operates with significant inhouse custody infrastructure integrated into its validator operations, highlighting both the agility and heightened governance obligations that self-custody entails. Its own validator operations function as a form of self-custody, as the firm acts as its own staking counterparty and a significant portion of its Solana holdings are staked this way.

Company in Focus: SOL Strategies Inc. (STKE)

- PAT companies. Semler Scientific (SMLR) splits storage between NYDIG (cold) and Coinbase Custody (hot), Strategy (MSTR) uses third-party qualified custodians with Coinbase as a primary institutional partner, while SOL Global (SOL-CA) engages Hex Trust for licensed custody and staking. Select issuers still pursue self-custody (e.g., BTCS, which prioritizes cold-wallet self-custody and non-custodial staking), accepting higher internal-control burden to minimize fee leakage. Institutions increasingly standardize on MPC or multisignature controls and cold-hot segregation. Regulatory licensing/charters remain a legal moat that improves enforceability and bankruptcy-remote treatment Anchorage Digital holds an OCC National Bank Charter and Coinbase Custody Trust is a NYDFS-chartered limited-purpose trust. Insurance is typically disclosed at the custodian-program level rather than issuer-specific such as Coinbase Custody citing a \$320 million commercial-crime program and BitGo insurance coverage up to \$250 million. We believe, named, diversified custodians and explicit cold-storage percentages indicate lower custodian risk; while undisclosed or MOU-stage setups warrant a higher-risk tag until definitive agreements, controls, and fees are verified.
- As a best practice, Strategy (MSTR) employs a hybrid custody model, combining institutional-grade third-party custodians with direct wallet management. The company's disclosures highlight key mitigation strategies such as cold storage for the majority of assets, multi-signature access controls, geographic key redundancy, and independent audit oversight aligned with SOC 2 and ISAE 3402 standards. These protocols are designed to reduce single points of failure and preserve operational control without compromising scalability or compliance.

**Chart 15: Emerging Trends in Crypto Custody Market** 

| Theme   | Key Insight  | Examples   |  |  |
|---|--|--|--|--|
| Multi-Institution Custody & Regulatory Redundancy | Leading custodians enhance legal resilience by distributing private key control across jurisdictions, enabling enforceable asset recovery in distress. | Onramp Bitcoin (BitGo, CoinCover,<br>Tetra Trust); Anchorage; Hex Trust  |  |  |
| Advanced Security Models (MPC & Multisig)         | Most institutions adopt MPC and multisig wallets, splitting key control to minimize single-point failures and insider threats                          | Coinbase Prime; Anchorage Digital;<br>Fireblocks                         |  |  |
| Insurance & Operational<br>Safeguards             | Institutional custodians use insurance as last-resort protection, with \$75M-\$320M coverage plus geographic key redundancy and 24/7 monitoring        | Gemini (\$75 million); Coinbase<br>Prime (\$320 million); BitGo          |  |  |
| Jurisdictional Licensing as Moat                  | Full regulatory licensing, such as OCC, NYDFS, or FINMA, provides custodians with legal clarity, enforceability, and bankruptcy-remote protections.    | Anchorage (OCC charter); Coinbase<br>& Gemini (NYDFS); Sygnum<br>(FINMA) |  |  |
| Treasury-Embedded Custody<br>Infrastructure       | Custody now integrates with treasury workflows, enabling API access, staking, DeFi, and automation to boost agility and NAV efficiency.                | CoinsDo; Fireblocks; Stakin;<br>Anchorage                                |  |  |

Source: Exec Edge Research, Stakin, Coinbase

Case Study: Prime Trust – A custodian failure with systemic implications: The collapse of Prime Trust in mid-2023 highlights the operational and legal risks tied to third-party custody. Once viewed as a reputable U.S. crypto custodian, Prime Trust was placed into regulatory receivership after losing access to legacy wallets ("The Wallet Incident"), misusing client funds, and holding insufficient reserves to meet withdrawals, leaving over \$85 million in liabilities. The failure stemmed not from a hack but from poor internal governance, undocumented key transitions, and inadequate redundancy. Critically, the firm reportedly used new client deposits to meet old obligations. Many clients lacked legal title to their assets and were treated as unsecured creditors. The case underscores the need for enforceable segregation terms, audited custody processes, and contingency protocols in DAT custody models.

**Chart 16: DAT Companies Trust Multiple Regulated Third-Party Custodians** 

| Company                                  | Ticker   | Token<br>Focus | Custodian Category                       | Name of Custodian(s)   |
|--|----------|----------------|--|--|
| Strategy Inc.                            | MSTR     | втс            | Multiple Regulated Third-Party Custodian | Coinbase   |
| Cantor Equity Partners, Inc. (XXI)       | CEP      | втс            | Self-Custodian                           | -  |
| Cantor Equity Partners I, Inc.<br>(BSTR) | CEPO     | втс            | NA                                       | NA   |
| Metaplanet Inc.                          | TYO:3350 | втс            | Multiple Regulated Third-Party Custodian | Primary: SBI VC Trade Co.,<br>Ltd.                                     |
| Trump Media & Technology Group           | DJIT     | втс            | Multiple Regulated Third-Party Custodian | Anchorage Digital and Crypto.com                                       |
| Semler Scientific*                       | SMLR     | втс            | Multiple Regulated Third-Party Custodian | Coinbase Custody, NYDIG<br>Trust Company                               |
| ProCap BTC                               | СССМ     | втс            | Single Custodian                         | Anchorage Digital  |
| GameStop Corp.                           | GME      | втс            | -  | -  |
| Empery Digital (Volcon, Inc.)            | EMPD     | втс            | Third-Party Custodian                    | -  |
| Sequans Communications S.A.              | SQNS     | втс            | Single Custodian                         | Coinbase   |
| BitMine Immersion Technology             | BMNR     | ETH            | Third-Party Custodian                    | -  |
| SharpLink Gaming, Inc.                   | SBET     | ETH            | Multiple Regulated Third-Party Custodian | -  |
| Dynamix Corporation (Ether Machine)      | DYNX     | ETH            | -  | -  |
| Bit Digital                              | втвт     | ETH            | Multiple Regulated Third-Party Custodian | Fireblocks and Cactus<br>Custody                                       |
| 180 Life Sciences Corp. (Ethzilla)       | ETHZ     | ETH            | -  | -  |
| BTCS, Inc.                               | BTCS     | ETH            | Self-Custodian                           | -  |
| Upexi, Inc.                              | UPXI     | SOL            | Multiple Regulated Third-Party Custodian | Coinbase Prime and BitGo   |
| DeFi Development Corporation             | DFDV     | SOL            | Multiple Regulated Third-Party Custodian | -  |
| SOL Strategies Inc.                      | STKE     | SOL            | Single Custodian                         | Coinbase   |
| Classover Holdings, Inc.                 | KIDZ     | SOL            | Single Custodian                         | BitGo  |
| SOL Global Investments                   | SOL-CA   | SOL            | Multiple Regulated Third-Party Custodian | Coinbase (Coinsquare);<br>Galaxy Digital (Zodia<br>Custody); Hex Trust |
| BIT Mining Limited                       | ВТСМ     | SOL            | Self-Custodian                           | -  |

Source: Exec Edge Research. Note: Custodian names have been presented based on information available in public domain. \*Semler will be acquired by Strive (ASST) for \$1.3 billion.

- KPI #10: Custody/Treasury Management Fees. This KPI assesses the cost-effectiveness, scalability, and architectural alignment of a DAT company's treasury operations. Custodian and treasury management fees represent a recurring operational cost that directly influences the capital efficiency and NAV accretion profile of DAT companies. While often less visible than headline operating expenses, these fees can materially erode long-term value, particularly when outsourced to third-party providers without meaningful scale leverage or contract optimization.
  - Fee structures across DATs vary based on operational design. Companies that fully outsource custody and treasury functions to institutional custodians typically incur explicit, volume-linked charges for wallet management, asset safekeeping, transaction execution, and reporting. These fees are often structured on a tiered basis, ranging from 10 to 40 basis points annually, with discounts negotiated at larger treasury scales. In contrast, DAT companies that have internalized core treasury operations via self-custody, validator infrastructure, or smart contract-based automation may incur higher initial buildout costs but benefit from near-zero marginal cost as asset scale increases.
  - Unlike ETFs, which deduct fees from NAV, DAT companies absorb custody and treasury expenses through corporate overhead. While this preserves 100% of token exposure on the balance sheet, inefficient fee structures can dilute long-term NAV per share, especially in flat markets or during periods of low issuance premium. Efficient models drive scalability without embedded cost drag.

Chart 17: U.S. Crypto Custodian Benchmarking

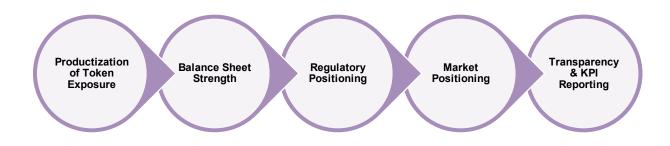
| Custodian                  | Regulatory<br>Status                             | Security<br>Model            | Insurance<br>(Est.)            | Estimated Fee<br>Range                           | Assets Under<br>Custody            | Token Focus / Notable<br>Clients   |
|----------------------------|--|------------------------------|--------------------------------|--|------------------------------------|--|
| Anchorage<br>Digital       | US OCC<br>Digital Bank                           | MPC, HSMs,<br>Audits         | Industry-<br>leading           | Custom, not publicly listed                      | > \$50 billion<br>implied (2024)   | Institutional finance,<br>banks, VCs; supports<br>staking and governance<br>infrastructure |
| Coinbase<br>Custody        | NYDFS Trust                                      | Cold Storage<br>+ MPC        | ~\$320 million                 | Not publicly<br>disclosed<br>(<0.35%)            | \$212 billion<br>(Q1 2025<br>avg.) | Institutional clients via<br>BlackRock's Aladdin<br>system (crypto trading and<br>custody) |
| BitGo                      | US/EU/Swiss<br>Licenses                          | Multi-<br>signature,<br>MPC  | ~\$250 million                 | ~0.60–1.80%<br>annually (0.05–<br>0.15% monthly) | \$100 billion<br>(H1 2025)         | 1,500+ institutional clients<br>in 50+ countries; leads<br>Solana staking custody          |
| Fidelity Digital<br>Assets | NYDFS Trust                                      | Cold Storage,<br>Segregation | Lloyd's of<br>London           | ~0.35% annually<br>+ 0.1% trading<br>fee         | Not disclosed                      | Focused on BTC and ETH custody under NY Trust Charter                                      |
| BNY Mellon                 | FDIC/SEC-<br>Reg. Bank                           | Institutional<br>Grade Bank  | Bank-level insurance           | Not disclosed                                    | Not disclosed                      | Bridges traditional and digital finance; high trust  |
| Gemini Custody             | NYDFS Trust,<br>SOC 1 and<br>SOC 2<br>Compliance | Cold Storage,<br>Compliance  | \$75 million—<br>\$200 million | ~0.40% annually<br>+ \$125<br>withdrawal fee     | Not disclosed                      | Licensed NY custodian;<br>blockchain address<br>verification; \$75M<br>insurance           |

Source: Exec Edge Research, Stakin, Coinbase

# **Deconstructing the DAT Moat – Identifying Differentiating Factors**

We believe that successful DAT companies of the future will be differentiated by one or more of the following moat elements: Productization of Token Exposure, Balance Sheet Strength, Regulatory Positioning, Market Positioning, and Transparency & KPI Reporting. Evaluating token holdings and NAV premiums in isolation offers an incomplete view of a DAT company's long-term potential. As the sector matures, competitive edge will be defined not just by what is held, but by how treasury exposure is structured, governed, and monetized. While KPIs reveal "how" companies are performing, differentiating factors explain "why" certain models attract more durable capital, execute with higher precision, and remain resilient across market cycles. As issuance windows narrow and investor scrutiny intensifies, we believe these factors enable forward-looking assessments of strategic positioning, helping identify which DAT companies are architected to withstand token price volatility and deliver persistent value creation.

**Chart 18: Strategic Differentiation Factors Among DAT Companies** 



Source: Exec Edge Research

### **Productization of Token Exposure**

- We believe that the ability to productize token exposure, i.e., transform token holdings into structured, monetizable products for scalable investor access, will differentiate successful DAT companies from others. We believe productization is a pivotal strategy for DAT companies, enhancing scalability, recurring yield, and capital efficiency. While most DAT firms hold BTC, ETH, or SOL on their balance sheets, only a select few are transforming these holdings into investable products, institutional access points, or income-generating infrastructure. MSTR's "Bitcoin refinery" is a strategic capital allocation model that leverages its balance sheet and capital-raising mechanisms to systematically acquire and hold Bitcoin. This process referred to as productization shapes how effectively a company can scale its treasury, generate recurring yield, and build capital market relevance.
- Productization involves turning raw token holdings into standardized, revenue-generating offerings that can be deployed at scale and may include structured financial instruments, staking-based income products, tokenbacked convertibles, or validator infrastructure. These offerings not only optimize yield and liquidity but also meet institutional requirements around governance, transparency, and capital efficiency.
  - Structured Yield Products: Use of preferred shares, convertibles, or derivatives to package token exposure
    into investable vehicles with defined return and risk profiles (e.g., MSTR's STRC preferred share program).
  - Staking-as-a-Service / Validator Revenue: Monetization of treasury assets like SOL or ETH via on-chain infrastructure, producing recurring income while retaining on-balance sheet exposure (e.g., STKE, UPXI).
  - Treasury-Backed Capital Formation: Raising capital through hybrid structures such as in-kind contributions, NAV-linked convertibles, or token-yield-linked instruments (e.g., DFDV, UPXI).
  - **Institutional Access Wrappers:** Offering token exposure via public equity, allowing investors to gain asset-linked upside without direct wallet or custody risk (e.g., MSTR, Metaplanet).

Chart 19: Token Monetization and Capital Structuring Strategies Across DAT Companies

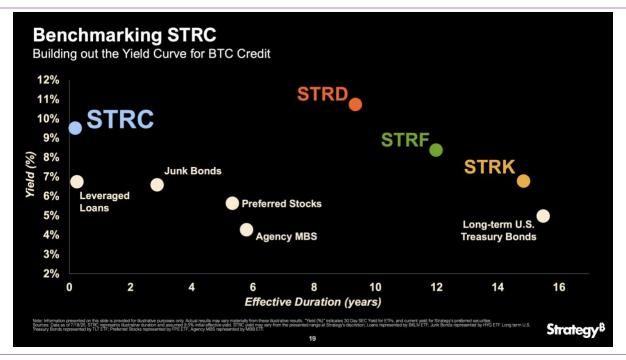
| Company Primary<br>Token |     | Produtizaation<br>Format                                     | Monetization<br>Method                      | Strategic<br>Benefit                                  |  |  |
|--------------------------|-----|--|---|---|--|--|
| Strategy Inc.<br>(MSTR)  | ВТС | Bitcain refinery<br>structured<br>equity (STRC)              | Yield curve<br>monetization;<br>NAV scaling | Institutional proxy<br>with recurring<br>capital flow |  |  |
| Sol Strategies<br>(STKE) | SOL | Validator<br>infrastructure                                  | Staking<br>rewards                          | Revenue-generating<br>treasury layer                  |  |  |
| DeFi Dev Corp.<br>(DFDV) | SOL | SOL-linked<br>convertibles;<br>staking-backed equity         | Yield +<br>token issuance                   | Accretive treasury expansion with flexibility         |  |  |
| Upexi Inc.<br>(UPXI)     | SOL | In-kind<br>convertibles<br>hybrid treasury +bad<br>financing | Treasury scaling<br>+ staking income        | Capital formation<br>with token<br>compounding        |  |  |

Source: Exec Edge Research

MSTR has outlined an ambition to "build out the yield curve for BTC credit," positioning the company as the first to define a structured yield framework for Bitcoin-linked instruments. Through the launch of STRC ("Stretch"), a perpetual preferred security, the firm is extending its capital stack to resemble traditional fixed-income markets (from sovereign-grade equivalents to higher-risk credit) while incorporating a measured premium for company-specific risk. STRF ("Strife"), another dividend-paying preferred, currently trades at a 340-basis-point spread over the 20-year U.S. Treasury yield. Collectively, these issuances form a de facto Bitcoin-anchored credit yield curve, designed to provide institutional investors with familiar yield segmentation while maintaining direct exposure to the underlying BTC treasury.

Company in Focus: Strategy (MSTR)

Chart 20: MSTR's Yield Curve



Source: Exec Edge Research, MSTR Investor Presentation

#### **Balance Sheet Strength**

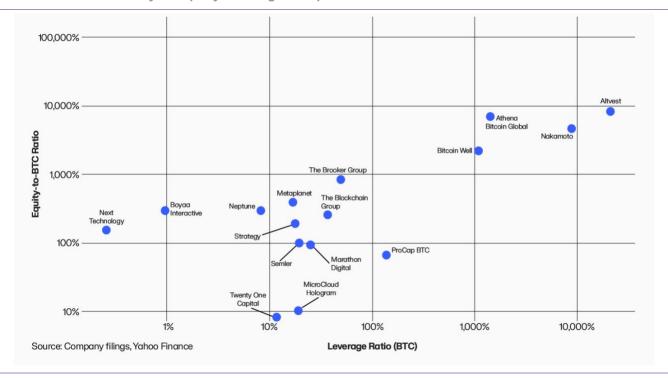
- A strong balance sheet is key to sustainable token-linked value creation; therefore, investors should evaluate the strength of DAT balance sheets while assessing potential winners in this space. Unlike companies that passively hold digital assets, DAT leaders take a deliberate approach to balance sheet design, leveraging capital structure to drive token accumulation, regulatory alignment, and institutional appeal. Firms with disciplined capital structures are better positioned to weather market volatility and enhance long-term NAV growth.
- According to B. Riley Securities, DAT companies have raised approximately \$44.1 billion YTD (as of September 24, 2025) to purchase crypto assets, and about \$71 billion since January 2023. The \$44 billion raised in 2025 has been through a mix of equity offerings, debt (primarily convertible), preferred equity, and PIPE/private placements. While equity provides flexibility, preferred equity and debt create fixed obligations that persist regardless of asset performance. This mix has wide-ranging implications. While common equity represents investor conviction, preferred equity given its fixed return obligations and seniority is often treated as quasi-debt in sustainability assessments. When combined with traditional debt, this layered capital structure introduces fixed repayment pressures that persist regardless of token price performance. The ability to navigate these obligations without diluting shareholder value or liquidating core holdings is what will separate resilient DAT models from fragile ones.
- We believe that DATs that maintain conservative leverage profiles, i.e., raise capital only when NAV-accretive and preserve operational flexibility during downturns, will emerge as long-term winners. Such firms typically benefit from access to premium debt structures, diversified maturity timelines, and internal cash flow generation that supports runway stability. Others that pursue aggressive issuance strategies layering convertibles, preferred shares, and frequent equity raises atop volatile BTC exposure depend on the persistence of a NAV premium to sustain their flywheel. However, when the premium compresses due to macro shocks or token drawdowns, the strategy unravels: equity issuance becomes dilutive, debt becomes punitive, and the firm is forced into distressed sales or capital raises that undermine its treasury mandate.
  - A significant portion of sector debt and preferred shares (~\$13 billion) matures between 2027 and 2028 and for participants without a self-funding core business, this creates a looming cliff. Companies like Marathon Holdings (MARA) and Strategy Inc. (MSTR) face elevated refinancing risk due to negative operating cash flows, high leverage, and dependence on favorable market conditions for equity issuance. In contrast, firms like Metaplanet (TYO:3350) and Semler Scientific (SMLR) exhibit stronger fundamentals, generating positive operating income and maintaining multi-quarter liquidity buffers. These companies are structurally positioned to meet obligations without relying on external capital, giving them an inherent edge in both bull and bear markets.

Companies in Focus: Metaplanet (TYO:3350) and Semler Scientific (SMLR)

- Convertible notes, while useful in reducing short-term cash burden, introduce a latent risk: if stock prices fall below conversion thresholds, companies may be forced to repay in cash, potentially liquidating BTC/token reserves in the process. Similarly, dilution risk becomes acute in DATs, issuing more than 3% of shares per quarter, a threshold already breached by some players.
- The scatterplot below illustrates material differences in DAT companies' Bitcoin exposure strategies, offering insight into their capital structure choices and degree of BTC alignment. Companies with Equity-to-BTC Ratios in the ~5%-200% range are regarded as high-quality BTC proxies, reflecting two key dynamics: investor confidence in their ability to accumulate Bitcoin accretively, and demand for clean, scalable BTC exposure. Once this ratio exceeds ~500%, however, valuation premiums typically reflect diversified business activities unrelated to Bitcoin, diluting the firm's effectiveness as a proxy, illustrated by cases such as Nakamoto. The Leverage Ratio axis complements this view by indicating the degree of financial risk a company assumes to acquire BTC. Higher leverage can signal capital efficiency, but it also implies dependence on debt or quasi-debt instruments, increasing balance sheet fragility if not supported by strong liquidity and governance.
  - Viewed together, these axes help distinguish firms that truly function as BTC-aligned treasury vehicles
     such as Strategy (MSTR), Marathon (MARA), and Twenty One Capital (XXI) from those that hold only symbolic or modest BTC reserves. While the latter group may benefit reputationally from Bitcoin association,

their structural inefficiencies and shallow commitment limit their relevance in a serious digital asset treasury strategy.

**Chart 21: Bitcoin Treasury Company Leverage Comparison** 



Source: Exec Edge Research, Keyrock

#### **Regulatory Positioning**

- We believe regulatory alignment has emerged as a strategic moat element for DAT companies, and is fast becoming a source of institutional credibility, operational durability, and long-term capital access. We believe that the recent shifts in the U.S. landscape mark a structural inflection point. The 2025 President's Working Group (PWG) Report on Digital Financial Infrastructure laid out a coordinated U.S. policy framework addressing four pillars critical to DATs: (1) the legal classification of digital assets, (2) modernization of market structure rules to accommodate tokenized securities, (3) development of custody standards for non-traditional assets, and (4) principles for integrating digital assets into banking, payments, and retirement systems. The report signaled a shift from fragmented enforcement to structured enablement, emphasizing safe access, regulatory interoperability, and technology-neutral innovation pathways. It created momentum for follow-on legislation, such as the proposed CLARITY Act, which aims to streamline licensing and oversight by assigning clearer jurisdictional authority, including potential CFTC leadership over non-security digital assets.
- The evolving U.S. regulatory framework aligns with global calls for robust governance, custody, and issuance norms that unlock institutional capital channels. Firms integrating auditor-aligned NAV disclosure, token-by-token treasury accounting, and embedded KYC/AML safeguards are being recognized not merely as compliant, but as credible market infrastructure. Internationally, the World Economic Forum's 2024 Digital Asset Regulation report calls for interoperability standards, privacy-preserving compliance layers, and multi-jurisdictional clarity principles essential to scaling DAT strategies. Deloitte reinforces this through guidance on real-time valuation methodologies and risk-aligned treasury disclosures for volatile or tokenized holdings.
  - A pivotal accelerant in this regulatory maturation is the U.S.' recent pivot toward digital asset alignment under President Trump's second term. The announcement of a Strategic Bitcoin Reserve, funded through seized digital assets and permanently held by the U.S. government, signals an institutional shift – treating Bitcoin

not merely as a speculative asset but as a sovereign store of value akin to gold. Complementing this, the **GENIUS Act** established a clear framework for stablecoin issuance and circulation, while a new presidential working group has been tasked with advancing digital asset infrastructure reforms. Together, these initiatives elevate the U.S. to a leadership position in digital asset strategy, creating an unprecedented policy tailwind for DAT companies. Firms that align with this vision through transparency, regulated issuance structures, and long-term treasury design will find themselves on the right side of both capital flows and policy endorsement.

■ We believe that companies that actively shape policy – through white papers, sandbox participation, or regulatory advisory roles – will create asymmetric advantages. Players like MSTR, DFDV, and STKE have already demonstrated this edge by participating in policy consultations and building frameworks aligned with expected norms. These firms are more likely to gain access to institutional custody rails, banking partnerships, and compliant token issuance regimes as they emerge.

Companies in Focus: Strategy (MSTR), Defi Development Corp. (DFDV), SOL Strategies (STKE)

**Chart 22: Mapping DAT Firms by Regulatory Engagement** 

| Company                       | Regulatory Posture                          | Principled Foundations   |  |  |  |  |
|-------------------------------|---|--|--|--|--|--|
| Strategy Inc. (MSTR)          | High – Practitioner & Influencer            | Actively engages with U.S. policy forums; pioneered fair-value NAV accounting; maintains robust disclosures aligned with SEC and FASB standards.                         |  |  |  |  |
| SOL Strategies Inc.<br>(STKE) | Emerging Leader – Crypto-Native<br>Advocate | Advocates for Solana staking inclusion in regulated portfolios; implements validator-level transparency; exploring tokenized staking within compliance-first wrappers.   |  |  |  |  |
| Metaplanet (TYO:3350)         | Moderate – Alignment via Practice           | Though less vocal, aligns with WEF's principles. Adopts real-time BTC NAV, integrated treasury audits, and embraces Japanese regulatory guidelines for listed companies. |  |  |  |  |

Source: Exec Edge Research

#### **Market Positioning**

- We believe Market Positioning, i.e., shaping investor visibility and sustaining capital access through narrative credibility, are other key tenets of successful DAT company's moat. Market positioning defines how DAT companies present themselves to the broader capital markets not just as holders of digital assets, but as credible proxies for digital asset exposure. Visibility on recognized public exchanges, active treasury communication, and strategic investor engagement play a crucial role in shaping perception, influencing liquidity, and ultimately enabling access to growth capital.
  - DAT companies that clearly articulate their treasury strategy are better understood, more accurately benchmarked, and more likely to be included in relevant indexes. Public companies that provide monthly or quarterly treasury updates, outline their token acquisition logic, and align disclosures with real-time valuation models gain reputational advantage.
  - Early-mover advantage further amplifies this dynamic. Firms like Metaplanet (TYO:3350), which established strong regulatory and narrative positioning in Japan ahead of domestic institutional inflows, have secured outsized media coverage, policy-visibility, and retail participation. These first-mover effects are particularly potent in jurisdictions where regulatory clarity is emerging but not yet saturated, thus creating a window where visibility compounds ahead of competition.

Company in Focus: Metaplanet (TYO:3350)

- Investor base segmentation adds a second layer of differentiation. DAT firms that deliberately structure their shareholder mix by balancing retail momentum with long-term institutional capital will be able to weather market cycles better than others. A diversified base creates strategic optionality: retail participation not only enhances visibility and market attention but also drives narrative momentum, amplifying market perception and fostering community engagement around the company's treasury strategy. This broad retail presence can support liquidity, create feedback signals that inform investor sentiment, and provide a dynamic layer of market responsiveness that complements the stabilizing influence of institutional shareholders. Institutional interest, in turn, supports scale, governance alignment, and lower capital costs, creating a resilient, multi-dimensional investor ecosystem.
- Beyond these fundamentals, narrative control remains key, underscoring the need for a strategic communication strategy. In high-volatility or macro-uncertain periods, many DATs may experience liquidity stress or fall into valuation ambiguity. Firms that maintain proactive investor communication, consistent media presence, and analyst dialogue remain anchored in capital conversation even when market momentum wanes.
  - In this context, strategic communications play an increasingly critical role. Partnering with specialized advisory firms such as ICR Inc. that can craft and deliver compelling, differentiated narratives enables DAT companies to translate complex treasury strategies into clear market messages. These firms help amplify visibility, strengthen investor confidence, and reinforce long-term access to growth capital, complementing internal reporting and investor engagement efforts.
  - Index inclusion and analyst coverage further reinforce visibility. Companies consistently featured in digital asset equity ETFs or thematic innovation funds enjoy automatic capital inflows, while those covered by sector specialists build legitimacy through research-led validation. Engagement at major investor forums, especially those straddling fintech, blockchain, and capital markets, also signals intent and builds community alignment.

**Chart 23: Leading DAT Firms and Their Market Positioning** 

| Company                          | Market Positioning                               | Investor Base & Communication  |
|----------------------------------|--|--|
| Strategy Inc. (MSTR)             | U.S. leader with early BTC narrative capture     | Strong institutional base; clear, recurring disclosures; real-time BTC NAV reporting; benefits from strong U.S. visibility and analyst coverage        |
| Metaplanet (TYO:3350)            | First-mover in Japan                             | Retail-led momentum; localized press coverage; minimal real-time NAV data; benefits from novelty and early adoption in a regulatory-light jurisdiction |
| SOL Strategies Inc.<br>(STKE)    | Mid-cap innovator with diversified token mix     | Strong communication cadence; focused on Solana-based transparency; growing visibility but less indexed exposure or passive fund inflows yet           |
| DeFi Development<br>Corp. (DFDV) | Solana-focused treasury model, strategic stealth | Limited analyst coverage; minimal public treasury disclosures; potential institutional alignment via Solana staking                                    |

Source: Exec Edge Research

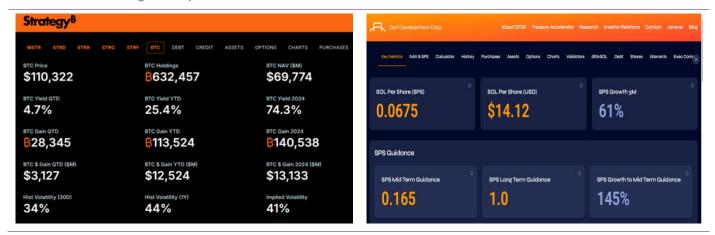
#### **Transparency & KPI Reporting**

Given the early-stage nature of the DAT landscape, leaders will earn investor trust through real-time disclosures and token-aligned performance metrics. Transparency has become a defining pillar for institutional acceptance in the DAT landscape. Firms that consistently publish meaningful, verifiable, and token-aligned metrics (see example dashboards below) will command not only investor trust but also valuation premiums. Leading DAT players are adopting a KPI framework built around real-time treasury visibility, token-by-token NAV tracking, and

operating cost disclosures tailored to digital asset treasuries. These are not just investor updates; instead, they are integral to how these firms are priced, benchmarked, and accessed by institutional capital.

A key evolution is the adoption of crypto-native performance metrics, such as BTC Yield and BPS, which
allow investors to compare DATs across both digital asset and equity lenses. These metrics offer an intuitive
way to evaluate capital efficiency, dilution risks, and NAV accretion, critical factors in assessing treasury quality.

Chart 24: Publishing DAT Specific KPIs Raises Investor Confidence



Source: Exec Edge Research, MSTR, DFDV

■ Retail engagement and communication strategy is another source of strategic advantage. The rise of IR 2.0 – a multi-channel, multi-audience communication approach – blends traditional investor relations with active social presence (e.g., Twitter/X, Stocktwits), retail trading communities and broader awareness via general media. This democratized investor reach reinforces brand trust, educates non-institutional investors, and supports liquidity through awareness-driven participation. At the core, messaging must remain consistent and impactful yet simplified. The most successful DAT firms balance technical disclosures with intuitive visualisation, leveraging dashboards, weekly snapshots, and even infographics to explain treasury growth, NAV changes, and capital deployment. Those that master both reporting and communication will be best positioned to become public-facing, high-trust vehicles in a tokenized financial ecosystem.

# Valuing DAT Companies - Peer Comparison and Crypto-Specific Metrics

- We believe that the unique characteristics of digital assets such as volatility, liquidity, and governance structures necessitate crypto-native valuation metrics to complement traditional valuation metrics. These metrics offer a more accurate reflection of value by accounting for how assets are managed, monetized, and positioned for long-term growth.
  - Traditional Valuation Metrics: For DAT companies with established operations or revenue-generating models, traditional financial metrics such as Price-to-Earnings (P/E), Price-to-Book (P/B), and EV/EBITDA remain relevant. These metrics help assess profitability, operational efficiency, and asset value. However, when applied to DATs, these metrics often overlook the volatility and growth potential associated with digital assets, such as Bitcoin and Ethereum, which require further refinement through crypto-specific measures.
  - Crypto-Specific Valuation Metrics: To more accurately reflect the unique nature of DAT companies, crypto-specific metrics like mNAV, Bitcoin Yield, and Amplification Factor Modeling are crucial. These metrics assess the value and performance of digital assets held by a company, evaluating the market sentiment, capital efficiency, and yield generation. mNAV, for example, compares a company's market value to its digital asset holdings, providing insights into whether a company is overvalued or undervalued based on its crypto portfolio.
- Our research shows that investors reward scalable, high-yield treasuries. While DATs with under-deployed assets and unclear growth strategies trade at a discount. The DAT peer group exhibits a bifurcated valuation profile, with market pricing sharply influenced by treasury scale, capital deployment velocity, and perceived operating leverage to token appreciation. Market caps span from KIDZ"s ~\$33M to MSTR's ~\$95B. On an mNAV basis, leaders like GME (20.27x), BTCM (4.91x), DJT (2.68x), and KIDZ (2.38x) command material premiums, reflecting investor conviction in their ability to accretively raise capital and compound token exposure. (See Comp Set on next page.)
  - YTD token yields underscore the dispersion with Metaplanet (466%) posting outsized growth and supporting elevated multiples, while mature acquirers like MSTR (25%) and SMLR (31.3%) sustain mid-tier premiums. Low or undisclosed yields correlate with valuations closer to spot NAV. Token per share further calibrate investor exposure, with SBET's 2.31 representing high embedded leverage versus sub-basis-point exposure at CEP and CEPO.
- High amplification rewards bullish BTC cycles but magnifies downside risk if premiums compress or leverage deteriorates. Amplification factor modeling is a crucial strategic framework for DAT companies that use leverage to amplify their BTC exposure. It adjusts raw holdings for debt, derivatives, and other capital structure elements to reflect *effective* exposure and a factor above 1.0x indicates that, per share, investors gain more BTC exposure than the company actually owns driven by capital structure dynamics, accretive share issuance at NAV premiums, and, in some cases, debt financing. The metric is calculated as Amplification Factor = (BTC Holdings × BTC Price + BTC-Linked Debt Proceeds) ÷ Equity Market Cap. This approach matters because leverage can magnify both upside and downside sensitivity to BTC price movements. Overall, the amplification factor serves as a risk-adjusted multiplier on underlying BTC exposure, providing investors with a clearer understanding of the leverage strategy embedded in a DAT company's capital structure and treasury management.
  - Leverage-driven amplification also introduces material risk. Keyrock research estimates that BTC-focused DAT companies collectively hold ~725,000 BTC (~3.64% of total supply) and trade at an average 73% premium to NAV. These companies have raised ~\$9.48B in debt and ~\$3.35B in preferred equity, often without sufficient operating cash flow to cover servicing costs. Sustaining high amplification factors requires maintaining premium multiples and compression can rapidly erode equity value and strain solvency.
  - Strategy (MSTR) demonstrates the amplification factor through its strategy of using both equity and debt to acquire Bitcoin, creating leveraged exposure to BTC price movements. With a market cap of roughly \$100 billion and total debt of about \$8.2 billion, the company holds approximately 632,457 BTC. At a BTC price of \$110,000, these holdings are valued at around \$70 billion, producing an amplification factor of ~0.7. A sub-1.0 reading indicates that MSTR's equity value exceeds its direct BTC exposure, with the balance reflecting brand equity, the value of its operating business, and perceived future capital-raising capacity. For investors, the metric underscores MSTR's sensitivity to BTC price movements while highlighting that its current valuation is influenced by broader strategic and market factors, not solely its BTC leverage.

# Valuing DAT Companies - Peer Comparison and Crypto-Specific Metrics

**Chart 25: Comp Set – Top DAT Companies** 

| SlNo | Ticker   | Company Name                                    | Token Focus | Share Price (\$) | Market Cap (\$M) | Token Balance | Token Value (\$M) | mNAV (x) | Token Per Share (x) | Token Yield | P/E (x) | P/B (x)   |
|------|----------|---|-------------|------------------|------------------|---------------|-------------------|----------|---------------------|-------------|---------|-----------|
| 1    | MSTR     | Strategy Inc.                                   | ВТС         | 331.44           | 94,680.89        | 638,460       | 74,636.0          | 1.27     | 0.0022350           | 25.40%      | 17.61x  | 1.96x     |
| 2    | CEP      | Cantor Equity Partners/Twenty One<br>Capital    | BTC         | 21.08            | 7,820.68         | 43,514        | 5,086.8           | 1.54     | 0.0001173           | NA          | 88.20x  | (102.74x) |
| 3    | CEPO     | Cantor Equity Partners I/BSTR Holdings Inc.     | BTC         | 10.42            | 843.60           | 30,021        | 3,509.5           | 0.24     | 0.0003708           | NA          | 53.23x  | (89.21x)  |
| 4    | TYO:3350 | Metaplanet Inc.                                 | BTC         | ¥591.00          | ¥446,765.55      | 20,136        | 2,353.9           | 1.75     | 0.0000266           | 465.70%     | 26.90x  | 1.92x     |
| 5    | DJT      | Trump Media & Technology Group                  | BTC         | 16.99            | 4,707.38         | 15,000        | 1,753.5           | 2.68     | 0.0000541           | NA          | -34.50x | 2.06x     |
| 6    | SMLR     | Semler Scientific                               | втс         | 29.19            | 432.15           | 5,021         | 587.0             | 0.74     | 0.0003393           | 31.30%      | 7.41x   | 1.04x     |
| 7    | CCCM     | Columbus Circle Capital Corp. I /<br>ProCap BTC | втс         | 10.18            | 348.05           | 4,932         | 576.6             | 0.60     | 0.0001443           | NA          | -       | -         |
| 8    | GME      | GameStop Corp.                                  | BTC         | 24.93            | 11,160.33        | 4,710         | 550.6             | 20.27    | 0.0000105           | NA          | 32.86x  | 2.16x     |
| 9    | EMPD     | Empery Digital (Volcon, Inc.)                   | BTC         | 7.08             | 336.31           | 4,081         | 477.1             | 0.70     | 0.0000859           | NA          | -0.07x  | 0.27x     |
| 10   | SQNS     | Sequans Communications S.A.                     | BTC         | 0.99             | 142.46           | 3,205         | 374.7             | 0.38     | 0.0000224           | NA          | 0.54x   | 0.61x     |
| 11   | BMNR     | BitMine Immersion Technology                    | ETH         | 55.09            | 9,557.95         | 2,069,443.0   | 9,658.1           | 0.99     | 0.0119276           | NA          | 19.09x  | 39.31x    |
| 12   | SBET     | SharpLink Gaming, Inc.                          | ETH         | 17.70            | 3,435.00         | 837,200       | 3,907.2           | 0.88     | 0.0043139           | 2.31%       | -1.11x  | 2.59x     |
| 13   | DYNX     | Dynamix Corporation (Ether Machine)             | ETH         | 10.92            | 241.70           | 495,362       | 2,311.9           | 0.10     | 0.0223842           | 3.15%       | -       | -31.80x   |
| 14   | втвт     | Bit Digital                                     | ETH         | 2.97             | 954.27           | 121,252       | 565.9             | 1.69     | 0.0003774           | 3.10%       | -9.76x  | 1.35x     |
| 15   | ETHZ     | Ethzilla, (180 Life Sciences Corp.)             | ETH         | 2.55             | 419.29           | 102,246       | 477.2             | 0.88     | 0.0006218           | NA          | -0.42x  | 2.86x     |
| 16   | BTCS     | BTCS, Inc.                                      | ETH         | 4.79             | 230.17           | 70,140        | 327.3             | 0.70     | 0.0014597           | 4.20%       | -4.44x  | 3.72x     |
| 17   | UPXI     | Upexi, Inc.                                     | SOL         | 6.76             | 384.31           | 2,018,419     | 492.0             | 0.78     | 0.0354793           | 8.00%       | -0.33x  | 5.22x     |
| 18   | DFDV     | DeFi Development Corporation                    | SOL         | 17.59            | 446.32           | 2,027,817     | 494.3             | 0.90     | 0.0799297           | 10.00%      | 15.00x  | 3.84x     |
| 19   | STKE     | Sol Strategies Inc.                             | SOL         | 7.37             | 164.94           | 435,064       | 106.1             | 1.40     | 0.0195622           | 10.00%      | -42.55x | 2.14x     |
| 20   | KIDZ     | Classover Holdings, Inc.                        | SOL         | 1.40             | 33.16            | 57,131        | 13.9              | 2.38     | 0.0024116           | NA          | -17.00x | -2.34x    |
| 21   | CSE: SOL | SOL Global Investments                          | SOL         | C\$0.06          | C\$12.65         | 29,858        | 7.3               | 1.49     | 0.0001298           | 6.26%       | -0.10x  | 3.82x     |
| 22   | втсм     | BIT Mining Limited                              | SOL         | 2.98             | 53.16            | 44,412        | 10.8              | 4.91     | 0.0024895           | NA          | -1.35x  | 1.11x     |
|      |          |   |             |                  |                  |               |                   |          |                     |             |         |           |

Source: Exec Edge Research, TIKR, Stock price data as of 9/12. Token yield for BTC-focused DATS are on YTD basis, for SOL- and ETH-based DATs token yield reflects APY staking yields.

#### **Risks**

- DAT companies face a multi-layered risk environment where crypto exposure, equity market dynamics, operational execution, and regulatory change intersect, often amplifying potential downside.
- Crypto market volatility: Digital asset treasury valuations are inherently tied to token price performance, with Bitcoin (BTC), Ethereum (ETH), and Solana (SOL) driving the bulk of portfolio value. A decline in any of these core assets can significantly impair asset values and investor returns. Correlation across major tokens often limits diversification benefits, meaning market-wide sell-offs can impact all holdings simultaneously. A recent Standard Chartered analysis underscores this fragility: if BTC were to fall below \$90,000 a relatively modest 15% correction from current levels nearly half of publicly listed corporate treasuries could be underwater. For leveraged players with high amplification factors, the impact is magnified. A sharp BTC drop not only reduces token NAV but also increases debt-to-equity leverage ratios, eroding investor confidence and potentially widening mNAV discounts. For example, companies like Strategy (MSTR), which combine significant BTC exposure with debt financing, could see amplified drawdowns, making crypto market volatility the single largest existential risk to the model.
- Equity market volatility: DAT equities often trade at substantial premiums to underlying NAV, reflecting investor optimism on token appreciation, capital-raising capacity, and operational alpha. However, a sector rotation away from growth or speculative assets (triggered by higher interest rates, liquidity tightening, or macroeconomic shocks) can cause rapid multiple compression. In 2022, while Bitcoin declined ~65%, the Hashrate Index of crypto mining stocks plunged ~78%, exemplifying their high-beta exposure to the underlying asset. Over the same period, the NASDAQ Composite fell ~33%, underscoring that crypto-linked equities experienced more than double the downside of mainstream tech benchmarks. For DAT companies, a similar dynamic applies. Even if BTC, ETH, or SOL prices remain stable, a broad equity market correction can close mNAV premiums, erode investor confidence, and constrain secondary funding access.
- Custody, equity dilution, and execution risk: Custody failures, equity dilution, and execution missteps can rapidly erode DAT valuations, magnifying token price declines through per-share NAV compression, mNAV premium loss, and reduced funding access. For leveraged players, these compounding risks can trigger sustained market cap erosion even if underlying token prices remain relatively stable. Digital asset treasuries rely on secure, cost-efficient custody to safeguard token holdings. Any could result in permanent loss of assets. For example, the 2022 collapse of FTX left multiple corporate clients unable to recover balances, highlighting concentration risk when custody is not diversified across multiple regulated providers.
  - Equity dilution is a structural risk, particularly for companies funding token acquisitions or operations through frequent share issuance. This can erode per-share NAV and suppress valuation multiples, especially if capital is raised during periods of low investor confidence. A clear example is Marathon Digital Holdings (MARA), which increased its shares outstanding by more than 50% between late 2021 and late 2022 to fund mining expansion and operations. During the same period, its share price collapsed from around \$75 to \$4 a more than 90% decline in market cap.
  - Execution risk in DAT companies could stem from flawed strategic decisions and operational mismanagement. This includes misjudging market timing, adopting inflexible treasury policies, or failing to adjust token management strategies in response to macro or on-chain developments. A high-profile example is Celsius, a major crypto lending platform that collapsed in 2022. Celsius generated high yields (up to 17%) by deploying customer assets into leveraged lending and risky DeFi protocols. When the market turned and counterparties such as Three Arrows Capital defaulted, Celsius faced a severe liquidity shortfall. Critically, the firm had no adequate hedging strategy or reserve buffers to protect its treasury, amplifying the impact of the downturn. The inability to dynamically manage risk and adjust strategy under stress forced Celsius to halt withdrawals in June 2022 and file for bankruptcy a month later, erasing billions in customer assets.
- Regulatory overhang: Jurisdictions differ widely in their treatment of digital assets, ranging from securities classification and taxation to staking restrictions and stablecoin oversight. Sudden rule changes can materially alter business models, limit market access, or impose compliance costs that erode returns. Heightened regulatory scrutiny can also influence token liquidity and valuation. A case in point is the SEC's lawsuit against Ripple in 2020, which triggered significant exchange delistings and reduced XRP's market accessibility for years, even before the legal outcome. Comparable actions against DAT-relevant tokens could depress treasury values and constrain rebalancing options.

# **Conclusion & Investment Thesis Framework**

- We believe a new institutional-grade sector is emerging at the intersection of digital asset treasuries and regulated public market structures. The DAT sector has established itself as a distinct and increasingly institutionalized segment of the public markets, offering equity-based access to token-linked value creation. These companies combine the balance sheet exposure of digital assets with governance, regulatory oversight, and liquidity benefits of listed equities. Since 2020, the model has evolved from single-asset, Bitcoin-centric strategies into diversified treasury approaches incorporating Ethereum, Solana, and yield-generating instruments. This shift reflects both a maturing market structure and the strategic adaptation of corporate treasuries to optimize capital productivity. Regulatory developments including the FASB's adoption of fair-value accounting and the SEC's approval of spot Bitcoin ETFs have provided legitimacy and operational clarity, while macroeconomic and geopolitical instability has reinforced the appeal of non-fiat reserves. For investors, this confluence positions DATs as a scalable, regulated gateway to the digital asset economy.
- Not all DAT companies are created equal capital efficiency and the DAT flywheel underpin long-term value creation and will allow disciplined firms (winners) to compound token reserves through market cycles. Building on the foundation of a maturing, institutionalized DAT sector, the investment case for these companies is anchored in capital efficiency the ability to transform valuation premiums into incremental token holdings without proportionate dilution. Market leaders will need to master the "capital market flywheel," exploiting elevated mNAV multiples to issue equity or preferred securities at accretive valuations. The proceeds will then be redeployed into digital assets, increasing per-share NAV and reinforcing market confidence. Firms such as Strategy Inc. (MSTR) and Metaplanet (TYO: 3350) that have demonstrated consistent application of this approach, are positioning themselves as scalable, liquid proxies for digital asset exposure. We also note that unlike passive ETFs, DATs can actively expand token reserves through strategic issuance, provided they maintain investor trust and disciplined capital allocation.
- We believe DAT winners will drive value through productization and will migrate from being static asset holders to becoming active yield platforms. We believe capital efficiency is further enhanced by productization the ability to transform token holdings into scalable, revenue-generating formats. Sector leaders integrate structured yield instruments, token-backed convertibles, and validator-as-a-service models that monetize treasury assets without liquidating core holdings. By embedding staking infrastructure and other on-chain yield mechanisms, DAT companies diversify returns and reduce reliance on token appreciation alone. This operational sophistication elevates DATs from static asset holders into active yield platforms, appealing to both income-oriented investors and those seeking exposure to digital asset upside. It also strengthens resilience in flat or declining token price environments, as recurring revenues can partially offset NAV compression.
- Robust liquidity management, coupled with disciplined issuance policies, will separate durable models from those vulnerable to cyclical disruption. Balancing growth with resilience and balance sheet discipline remains a defining safeguard for long-term DAT performance ensuring operational flexibility and protecting NAV through market cycles. Conservative leverage profiles, staggered debt maturities, and diversified funding sources provide stability in adverse conditions. In contrast, over-reliance on debt or perpetual equity issuance exposes companies to refinancing and dilution risks, particularly if mNAV premiums compress. Upcoming debt maturities in 2027—2028 present a structural test for highly leveraged DATs lacking strong operating cash flows. Investors must distinguish between issuers capable of self-funding treasury mandates and those dependent on favorable capital market windows.
- Valuation dispersion within the DAT space creates alpha opportunities for selective investors driven by differences in treasury scale, capital efficiency, disclosure quality, and governance alignment. Top-tier names such as Metaplanet (TYO: 3350), Strategy Inc. (MSTR), and DeFi Development Corp. (DFDV) sustain valuation premiums by consistently compounding per-share NAV and delivering token-linked yields under a robust regulatory framework. Laggards, by contrast, often trade at or near spot NAV, offering minimal torque to digital asset appreciation. We expect winners to lead and set industry benchmarks in transparency and effective communication. For investors, this spread reinforces the importance of disciplined allocation overweighting issuers with proven capital deployment frameworks and recurring yield engines, while avoiding structurally weak balance sheets and opaque disclosures that limit re-rating potential.

# **Appendix – Top 100 Public Bitcoin Treasury Companies**

**Chart 26: Top 100 Public Bitcoin Treasury Companies** 

|          | Company Name                            | Country | Ticker | Bitcoin Held | Rank     | Company Name                               | Country | Ticker | Bitcoin Held |
|----------|---|---------|--------|--------------|----------|--|---------|--------|--------------|
| 1        | Strategy                                | US      | MSTR   | 638,460      | 51       | SOS Limited                                | CN      | SOS    | 803          |
| 2        | MARA Holdings, Inc.                     | US      | MARA   | 52,477       | 52       | Bitcoin Treasury Corp                      | CA      | BTCT   | 771          |
| 3        | XXI                                     | US      | CEP    | 43,514       | 53       | Figma Inc                                  | US      | FIG    | 767          |
| 4        | Bitcoin Standard Treasury Company       | US      | BSTR   | 30,021       | 54       | AkerASA                                    | NO      | AKER   | 754          |
| 5        | Bullish                                 | US      | BLSH   | 24,000       | 55       | Méliuz                                     | BR      | CASH3  | 605          |
| 6        | Metaplanet Inc.                         | JP      | MTPLF  | 20,136       | 56       | MercadoLibre, Inc.                         | AR      | MELI   | 570          |
| 7        | Riot Platforms, Inc.                    | US      | RIOT   | 19,239       | 57       | bitmax                                     | KR      | 377030 | 551          |
| 8        | Trump Media & Technology Group Corp.    | US      | DJT    | 15,000       | 58       | Alliance Resource Partners, L.P.           | US      | ARLP   | 541          |
| 9        | CleanSpark, Inc.                        | US      | CLSK   | 12,703       | 59       | Samara Asset Group                         | MT      | SRAG   | 525          |
| 10       | Coinbase Global, Inc.                   | US      | COIN   | 11,776       | 60       | Convano Inc                                | JP      | 6574   | 520          |
| 11       | Tesla, Inc.                             | US      | TSLA   | 11,509       | 61       | Phoenix Group PLC                          | AE      | PHX    | 514          |
| 12       | Hut 8 Mining Corp                       | CA      | HUT    | 10,667       | 62       | Jasmine International PCL                  | TH      | JAS    | 506          |
| 13       | Block, Inc.                             | US      | XYZ    | 8,692        | 63       | DigitalX                                   | AU      | DCC    | 502          |
| 14       | Galaxy Digital Holdings Ltd             | US      | GLXY   | 6,894        | 64       | CIMG Inc                                   | нк      | IMG    | 500          |
| 15       | Next Technology Holding Inc.            | CN      | NXTT   | 5,833        | 65       | Bit Digital, Inc.                          | US      | BTBT   | 418          |
| 16       | KindlyMD, Inc.                          | US      | NAKA   | 5,765        | 66       | Virtu Financial, Inc.                      | US      | VIRT   | 410          |
| 17       | Cango Inc                               | CN      | CANG   | 5,418        | 67       | Neptune Digital Assets                     | CA      | NDA    | 401          |
| 18       | Semler Scientific                       | US      | SMLR   | 5,021        | 68       | 3U Holding AG                              | DE      | UUU    | 363          |
| 19       | ProCap BTC                              | US      | CCCM   | 4,932        | 69       | Net Holding A.S.                           | TR      | NTHOL  | 352          |
| 20       | GameStop Corp.                          | US      | GME    | 4,710        | 70       | DMG Blockchain Solutions Inc.              | CA      | DMGI   | 341          |
| 21       | Empery Digital (Volcon, Inc.)           | US      | EMPD   | 4,081        | 71       | Consensus Mining & Seigniorage Corporation | US      | CMSG   | 334          |
| 22       | Gemini Space Station Inc                | US      | GEMI   | 4,001        | 72       | LM Funding America                         | US      | LMFA   | 311          |
| 23       | Boyaa Interactive International Limited | HK      | 434    | 3,670        | 73       | POP Culture Group Co., Ltd.                | CN      | CPOP   | 300          |
| 23<br>24 | •                                       | DE DE   | ADE    | 3,605        | 73<br>74 | •  | CN      | NCTY   | 285          |
|          | Bitcoin Group SE                        |         |        |              |          | The9 Limited                               |         |        |              |
| 25       | Sequans Communications S.A.             | FR      | SQNS   | 3,205        | 75       | Phoenix Digital Assets                     | GB      | PNIX   | 247          |
| 26       | The Smarter Web Company PLC             | GB      | SWC    | 2,470        | 76       | Advanced Bitcoin Technologies AG           | DE      | ABT    | 242          |
| 27       | American Bitcoin Corp                   | US      | ABTC   | 2,443        | 77       | LQWD Technologies Corp.                    | CA      | LQWD   | 239          |
| 28       | Microcloud Hologram                     | KY      | HOLO   | 2,353        | 78       | Coinshares International Limited           | JE      | CS     | 236          |
| 29       | Capital B                               | FR      | ALCPB  | 2,249        | 79       | WEMADE                                     | KR      | 112040 | 223          |
| 30       | HIVE Digital Technologies               | CA      | HIVE   | 2,201        | 80       | Rumble Inc.                                | CA      | RUM    | 211          |
| 31       | Exodus Movement, Inc                    | US      | EXOD   | 2,116        | 81       | DeFi Technologies                          | CA      | DEFI   | 204          |
| 32       | Bitdeer Technologies Group              | SG      | BTDR   | 1,935        | 82       | Genius Group                               | SG      | GNS    | 200          |
| 33       | BITFUFU                                 | SG      | FUFU   | 1,899        | 83       | BitMine                                    | US      | BMNR   | 192          |
| 34       | NEXON Co., Ltd.                         | JP      | 3659   | 1,717        | 84       | Prenetics                                  | KY      | PRE    | 187          |
| 35       | Core Scientific                         | US      | CORZ   | 1,612        | 85       | Bitcoin Treasury Capital                   | SE      | BTCB   | 187          |
| 36       | Canaan Inc.                             | US      | CAN    | 1,547        | 86       | Coinsilium                                 | GI      | COIN   | 182          |
| 37       | Fold Holdings Inc.                      | US      | FLD    | 1,492        | 87       | FRMO Corp.                                 | US      | FRMO   | 159          |
| 38       | Cipher Mining                           | US      | CIFR   | 1,414        | 88       | Sixty-Six Capital Inc                      | CA      | SIX    | 145          |
| 39       | Remixpoint                              | JP      | 3825   | 1,273        | 89       | Banxa Holdings Inc.                        | CA      | BNXAF  | 136          |
| 40       | Bitfarms Ltd.                           | CA      | BITF   | 1,166        | 90       | Vaultz Capital                             | GB      | V3TC   | 135          |
| 41       | Satsuma Technology                      | GB      | SATS   | 1,149        | 91       | Horizon Kinetics Holding Corp              | US      | HKHC   | 131          |
| 42       | Anap Holdings Inc.                      | JP      | 3189   | 1,048        | 92       | K33 AB                                     | NO      | K33    | 126          |
| 43       | H100 Group                              | SE      | H100   | 1,025        | 93       | Neowiz holdings                            | KR      | 42420  | 123          |
| 44       | KULR Technology Group                   | US      | KULR   | 1,021        | 94       | The Brooker Group                          | TH      | BTC    | 122          |
| 45       | DDC Enterprise Limited                  | US      | DDC    | 1008         | 95       | BIGG Digital Assets Inc.                   | CA      | BIGG   | 100          |
| 46       | Nano Labs                               | CN      | NA     | 1000         | 96       | Bitcoin Depot                              | US      | BTM    | 100          |
| 47       | USBC, Inc.                              | US      | USBC   | 1000         | 97       | Vanadi Coffee, SA                          | ES      | VANA   | 100          |
| 48       | Treasury                                | NL      | \$TRSR | 1000         | 98       | K Wave Media                               | US      | KWM    | 88           |
| 49       | Ming Shing Group                        | HK      | MSW    | 833          | 99       | London Bitcoin Company (formerly Vinanz)   | GB      | BTC    | 86           |
|          | ring Stillig Group                      | пк      | 1-1244 | ೦೦೦          | 99       | condon bitcoin company (formerty vinanz)   | GB      | DIC    | 86           |

Source: Exec Edge Research, BitcoinTreasuries.net. Data as of 9/15.

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