

# THE NEW MINING REGIME – 2025 BITCOIN MINING MARKET REVIEW

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## Executive Summary

Bitcoin's 2025 cycle marked a structural inflection point in its evolution. Rather than delivering a classic post-halving rally driven by speculative excess, the year was defined by macro-driven volatility, prolonged consolidation, and a growing disconnect between price behavior and underlying network expansion. This shift reflects Bitcoin's transition from a retail-dominated asset into an institutional, sovereign, and industrial component of the global financial system.

Regulated access matured meaningfully in 2025. Spot Bitcoin ETFs became a permanent part of market infrastructure, absorbing a significant share of new supply and reshaping liquidity dynamics. At the same time, corporate treasuries, Digital Asset Treasury (DAT) firms, miners, and governments expanded their Bitcoin holdings, introducing structurally different sources of demand that operate independently of short-term price momentum. As a result, Bitcoin's price formation increasingly reflected macro liquidity conditions and institutional positioning rather than reflexive retail behavior.

The reliability of the traditional four-year halving cycle continued to fade. With 95% of Bitcoin's supply already mined and issuance declining in absolute terms, halvings now act as incremental supply tightenings rather than dominant market shocks. At Bitcoin's current scale, price dynamics are shaped less by issuance mechanics alone and more by capital flows, policy expectations, and balance-sheet demand.

On the network side, 2025 was defined by unprecedented hashrate volatility and sustained expansion. Bitcoin entered the zetahash era while recording its third consecutive year of aggressive hashrate growth, even as mining margins compressed. Public miners scaled through capital markets, private miners expanded quietly, and ASIC manufacturers increasingly redirected inventory into self-mining, decoupling network security growth from short-term profitability.

Mining economics compressed materially throughout the year. Transaction fees fell to multi-year lows, leaving hashprice heavily dependent on Bitcoin's spot price following the 2024 halving. In response, miners increasingly behaved as strategic treasury managers; retaining production, purchasing Bitcoin on-market, and accessing liquidity through BTC-backed lending rather than acting as forced sellers.

Looking ahead, mining has entered a more mature, capital-intensive phase. Hashprice compression appears structural, power strategy has become a financial variable, and ASIC competition has shifted from headline efficiency gains to best-fit deployment. 2025 can therefore be understood as Bitcoin's institutional adolescence: large enough to matter systemically, regulated enough to integrate, and industrial enough that execution - not cycle timing now defines outcomes.

## Introduction

Bitcoin entered 2025 in a very different position than any prior post-halving year. The asset was no longer competing for attention as a niche speculative trade, it was operating as a macro instrument inside a financial system that had finally built regulated access, institutional wrappers, and a growing set of corporate and sovereign use cases. That shift changed the character of the market. Instead of the clean, parabolic “Year 2” rally investors were trained to expect, 2025 delivered a volatile, macro-driven path with long consolidation ranges, sharp drawdowns, and repeated recoveries without the euphoric blow-off phase that defined earlier cycles. 2025 marked a structurally different Bitcoin cycle, where price appreciation occurred alongside institutional adoption, regulated investment vehicles, and balance sheet demand rather than being driven primarily by speculative retail flows.

This report, Market Review 2025, examines why this cycle felt structurally different—and what that means for the next phase of Bitcoin’s maturation. We begin with price action and the fading reliability of the classic four-year halving framework. In a world where halvings are now incremental supply tightenings rather than dominant shocks, Bitcoin’s price formation increasingly reflects liquidity regimes, policy expectations, and institutional positioning. The report then breaks down the narratives that mattered most in 2025: regulatory clarity reaching a tipping point, Bitcoin’s accelerating role as a sovereign asset, the emergence of “American Bitcoin” as a political and industrial theme, and the rapid growth of corporate Bitcoin treasury strategies and Digital Asset Treasury (DAT) firms.

From there, we shift to the network itself, because the most important story of 2025 may have been on the supply side of security. Hashrate didn’t just grow; it became violently volatile, crossed into the Zetahash era, and expanded for a third consecutive year at a pace that defied compressed margins. At the same time, mining became more concentrated as public miners scaled aggressively, private miners expanded quietly, and ASIC manufacturers accelerated the shift toward self-mining, blurring the line between vendor and operator and reshaping competitive dynamics. We close the market review by connecting these structural shifts to mining economics: difficulty behavior in a volatile hashrate environment, the collapse of transaction fees, and the resulting pressure on hashprice and miner resilience.

Ultimately, 2025 can be read as Bitcoin’s “institutional adolescence”: large enough to matter, regulated enough to integrate, and industrial enough that security growth is no longer governed solely by profitability. The goal of this report is to provide a clear, data-driven narrative of that transition so investors, operators, and stakeholders can better understand where Bitcoin is today, and what forces are likely to define 2026 and beyond.

# 1. A Structurally Different Bitcoin Cycle

## 1.1 Volatile Year, Flat Result

BTC: -\$5,900 / -6.3%

Open: \$93,400 | Close: \$87,500 | High: \$126,300 | Low: \$74,000

Bitcoin's 2025 price dynamics underscored how structurally different this cycle has become, defined less by parabolic runs and more by macro-driven volatility within.

The year began with strong momentum. On January 20, Bitcoin reached its first all-time high of 2025, peaking just below \$110,000. That strength quickly reversed as escalating geopolitical tensions and renewed uncertainty around U.S. trade policy triggered a sharp risk-off move. Within just two and a half months, BTC fell to a yearly low slightly above \$74,000, marking a 31.2% drawdown, or nearly \$35,000, from the peak.

Sentiment improved in March as former President Trump signalled a potential softening of U.S. tariff policy. The shift helped stabilize markets, allowing Bitcoin to rebound above \$83,000. Favourable U.S. CPI data further reinforced confidence, and by mid-April BTC had consolidated above \$85,000. On April 22, optimism around U.S.-China trade relations sparked a \$6,000 daily rally, pushing Bitcoin above \$93,000 after Trump commented that tariffs on Chinese goods would "come down substantially."

Momentum continued into May. On May 8, Bitcoin reclaimed the \$100,000 level for the first time since February, following signals of a renewed U.S.-U.K. trade agreement. Two weeks later, on May 22, BTC set a new all-time high near \$112,000. While June brought two tests of the psychologically important \$100,000 level, both pullbacks proved shallow. Notably, a surprise U.S. strike on Iranian nuclear facilities on June 22 briefly pushed BTC below six figures, but the market recovered swiftly, reclaiming and holding \$100,000 into month-end.

July marked a renewed leg higher. Bitcoin broke into price discovery once again, breaking above the \$120,000 level for the first time. The month closed at approximately \$115,600—an 8% gain over July. Broader macro developments added fuel late in the month as the U.S. finalized trade agreements with the EU and Japan and delayed tariffs on China by another 90 days. Officials described the deal as the "biggest trade deal ever," highlighting that the U.S. and EU together represent roughly 44% of global GDP.

August opened with turbulence. Bitcoin spot ETFs recorded their second-largest daily outflow on record of \$812.3 million on August 1, briefly pushing BTC below \$112,000. The drawdown proved short-lived. An executive order allowing Americans to allocate 401(k) retirement funds into Bitcoin and other digital assets reignited ETF inflows. Bitcoin surged to a new all-time high near \$124,500 on August 14, only to experience a sharp pullback to \$117,000 the following day, rattling broader crypto markets. Volatility persisted through late August. BTC closed August near \$108,000, down 3.8% for the month.

On September 1, price briefly dipped to \$107,000, retesting and holding former resistance as support after which it started rallying to the month's high of \$118,000. Mid-September brought the Federal Reserve's first rate cut in nine months, a 25-basis-point move described as a "risk management cut." While widely expected, it reinforced the shift toward looser financial conditions, historically supportive of Bitcoin and other risk assets. Volatility nevertheless resurfaced, with the largest daily liquidations since June occurring on September 22, pushing BTC down 3.1% in a single session. Despite this, Bitcoin closed the month \$7,000 higher than it started.

On October 6, Bitcoin reached another all-time high near \$126,300. This marked the highest price BTC achieved in 2025. But instead of entering sustained price discovery, the market reversed sharply. BTC fell below \$104,000, a 17.7% correction from the peak in just four. Bitcoin rebounded strongly to trade back near \$115,000 but eventually gave in closing the month around \$108,500.

Through November, selling pressure intensified, and once Bitcoin fell below \$100,000, several bearish technical signals emerged. For the first time since Q1 2023, BTC closed below its 50-week moving average, an important short-term bearish development until reclaimed. On the daily chart, a death cross formed as the 50-day SMA crossed below the 200-day SMA. On November 21st price dropped all the way to \$80,800, over 35% from the ATH.

December opened with heightened macro uncertainty following the FOMC meeting. While no major surprises emerged, continued ambiguity around the rate path and economic growth encouraged caution across risk assets. Throughout the month Bitcoin bouncing up and down in a range of \$84,000 to \$95,000. In the absence of a materially improving macro backdrop, near-term conditions remain challenging.

Unlike prior bull cycles, Bitcoin's 2025 price dynamics were increasingly shaped by macro liquidity conditions, institutional participation, and regulated access points, reducing the dominance of reflexive, sentiment-driven trading.



## 1.2 The Fading of the Classic Bitcoin Cycle

Bitcoin opened 2025 at approximately \$93,400 and closed the year at \$87,500, delivering a gain of -\$5,900, or -6.3% year-to-date. At the beginning of the year the market expected a bullish year and many even anticipated a parabolic phase as Bitcoin has shown in the past cycles. But the character of Bitcoin's price behaviour increasingly diverges from the historical four-year cycle framework that has defined prior bull markets.

Year	Annual Return
2025	-6.3%
2024	121.1%
2023	155.4%
2022	-64.3%
2021	59.7%
2020	303.2%
2019	92.2%
2018	-73.6%
2017	1,368.9%
2016	123.8%
2015	34.7%
2014	-29.90%

*BTC Annual Return Over the Past 12 Years (Source: TradingView).*

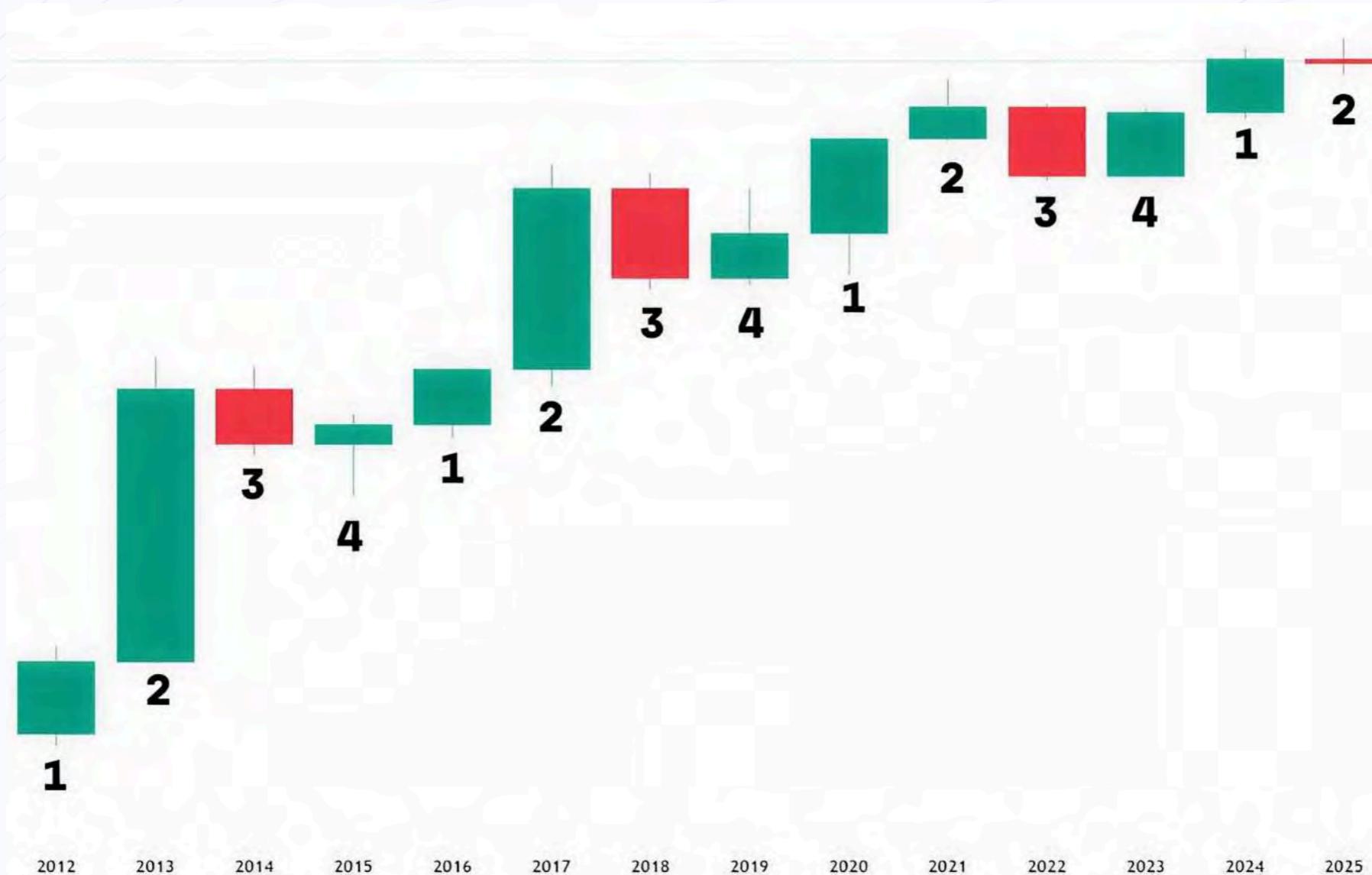
For over a decade, Bitcoin was widely understood to follow a relatively consistent cyclical structure tied to the halving schedule:

Year 1 (Halving Year): Block subsidy declines, new supply tightens, and a bull market begins to form.

Year 2: Parabolic rallies dominate, often culminating in euphoric blow-off tops.

Year 3: A severe bear market flushes excess leverage and speculation.

Year 4: Accumulation and gradual recovery set the stage for the next halving.



*The 4-Year Cycle Visualized (Source: TradingView).*

From 2012 through 2020, this model held with striking consistency. Each halving introduced a meaningful supply shock, demand surged, and miners, traders, and investors appeared to move in lockstep with the four-year rhythm. However, structural changes became clear in 2025 which suggest that Bitcoin's trajectory is no longer dictated solely by the halving cycle. There are three key reasons why the cycle is losing its dominance.

The first is the diminishing impact of the halving. Early halvings dramatically reduced Bitcoin's new supply. The first halving cut block rewards from 50 BTC to 25 BTC, reducing daily issuance from roughly 7,200 BTC to 3,600 BTC. These supply shocks were large enough to materially alter market dynamics. By contrast, the 2024 halving reduced the block subsidy by just 3.125 BTC per block, cutting daily issuance from approximately 900 BTC to 450 BTC. While still meaningful, the relative reduction in supply is far smaller than in Bitcoin's early years. As a result, halvings now represent incremental tightening rather than the dominant shock they once were. This does not mean halvings no longer matter, but their ability to single-handedly drive explosive price cycles has clearly diminished.

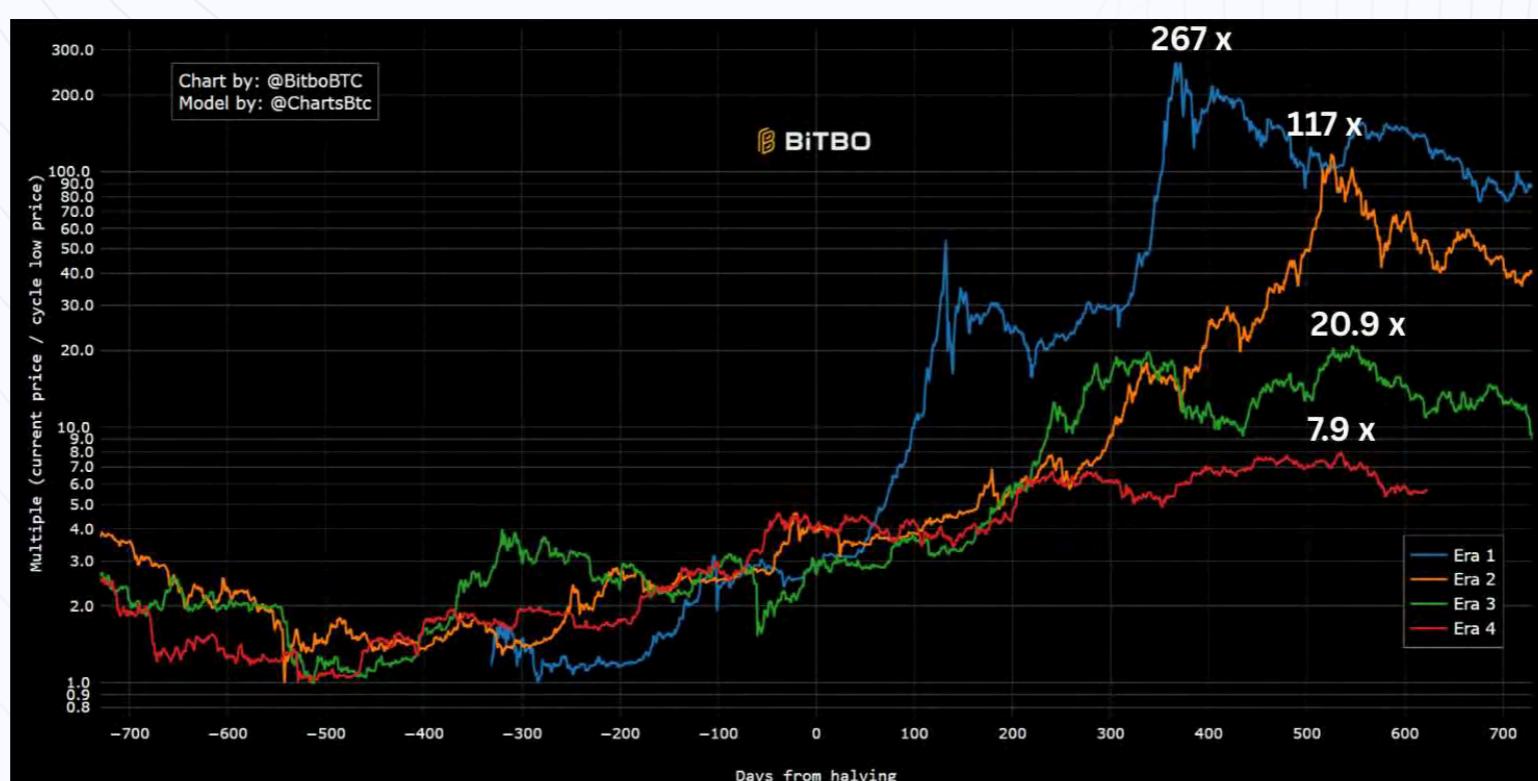
Halving	Year	Block Height	Block Subsidy	Total Supply
0	N/A	0	50	N/A
1	2012	210,000	25	50%
2	2016	420,000	12,5	75%
3	2020	630,000	6,25	87.5%
4	2024	840,000	3,125	93.75%
5	2028	1,050,000	1,5625	96.375%

*BTC Emission Schedule (Source: Digital Mining Solutions).*

Secondly, Bitcoin is no longer primarily a retail-driven speculative asset. The launch of spot Bitcoin ETFs in 2024 marked a structural inflection point. These vehicles collectively managed over \$100 billion in assets consistently throughout 2025, introducing a steady, programmatic source of demand that behaves fundamentally differently from retail capital. ETF inflows are typically driven by long-term portfolio allocation decisions rather than short-term price momentum. Institutional investors, wealth managers, and funds often allocate a small percentage, generally between 0.5% and 2%, to Bitcoin exposure. Because these allocations are strategic and modest relative to total portfolio size, they are far less sensitive to volatility. This has had a stabilizing effect on the market and provides structural support absent in earlier, retail-

dominated cycles. Beyond ETFs, public companies, funds, and governments collectively hold more than 4.05 million BTC at the end of 2025, 19.2% of total supply. This growing institutional footprint has fundamentally altered market behaviour, replacing chaotic boom-and-bust dynamics with more structured accumulation and distribution patterns.

Thirdly, the structured price action replaces extreme volatility. Previous Bitcoin cycles were characterized by explosive upside followed by violent collapses. The current cycle looks markedly different. Instead of rapid parabolic advances, Bitcoin has exhibited a pattern of upward moves followed by 20-35% retracements and extended consolidation phases, with prices trading sideways in broad ranges for prolonged periods often 30 weeks or more. Although 2025 is a post-halving, Bitcoin remains well outside traditional “bubble” or FOMO territory, according to long-standing indicators such as the Bitcoin Rainbow Chart. This stands in sharp contrast to prior cycles, where price acceleration typically peaked far earlier.



*Diminishing Returns (Source: Bitbo).*

## 1.3 The \$2 Trillion Threshold: Bitcoin Enters the Institutional Asset Class

Bitcoin MarketCap: -\$0.06T / -3.2%

Open: \$1.86T | Close: \$1.80 | High: \$2.49T | Low: \$1.51T

The first half of 2025 marked a defining moment in Bitcoin's maturation as a global asset. Early in the year, Bitcoin surpassed the symbolic \$100,000 price level, pushing its total market capitalization above \$2 trillion. This is an achievement reached just sixteen years after the network's launch.

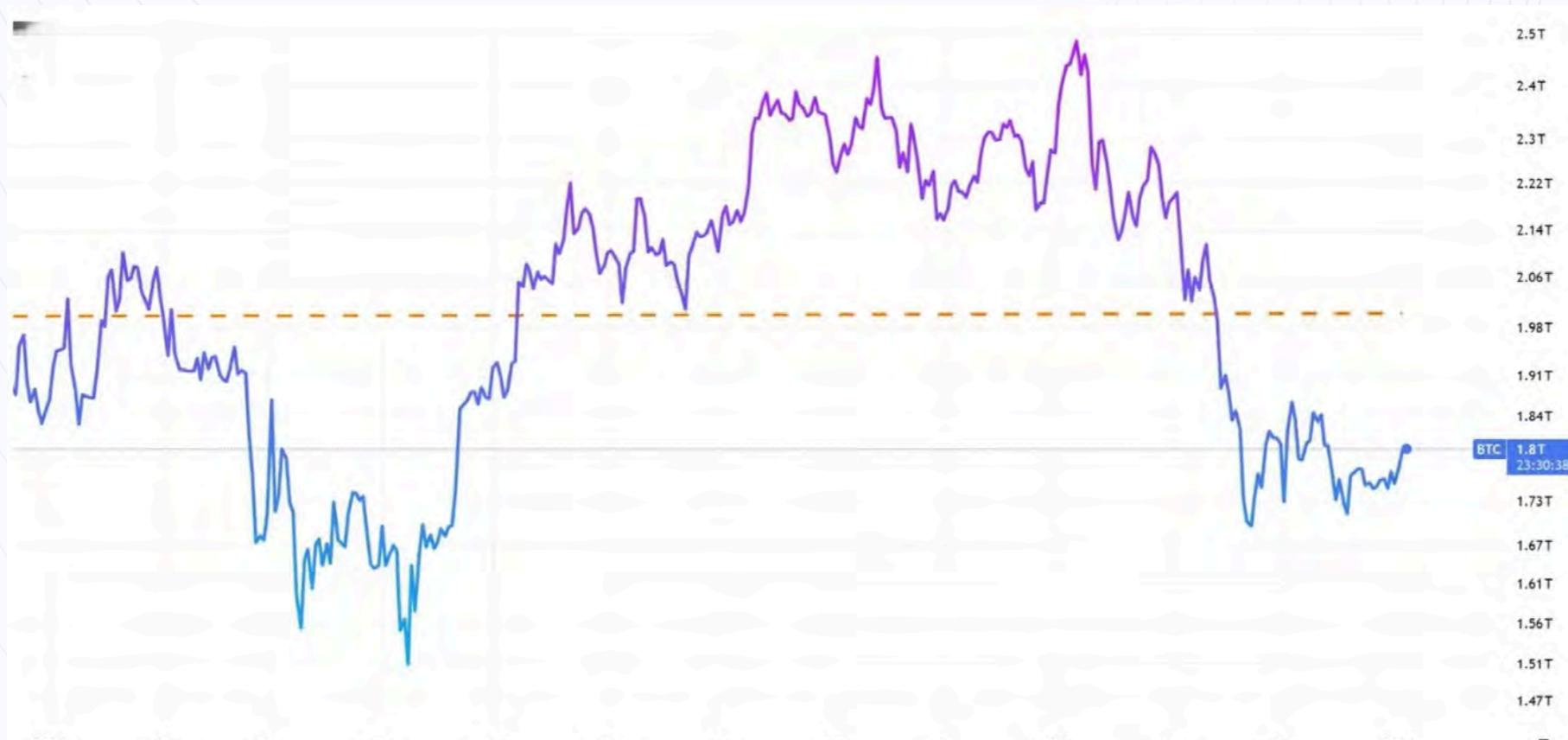
The speed of this ascent is unprecedented when compared to traditional corporate giants. Amazon required twenty-nine years to reach a \$2 trillion valuation, while Apple took forty-two years, crossing that threshold only in 2020. Bitcoin's rise to comparable scale in less than two decades underscores not only its adoption curve, but also its transition from a niche digital experiment into a systemically relevant financial asset.

Following a strong price expansion in the second quarter, Bitcoin briefly climbed to become the fifth-largest asset globally by market capitalization, overtaking silver and companies such as Google and Amazon. By the end of the first half of 2025, it ranked sixth worldwide, with a market cap exceeding \$2.1 trillion.

Rank	Asset Name	Ticker	Market Cap	Price
1	Gold	GOLD	\$21.732 T	\$3,236
2	Microsoft	MSFT	\$3.388 T	\$455.92
3	NVIDIA	NVDA	\$3.264 T	\$133.86
4	Apple	AAPL	\$3.060 T	\$204.90
5	Bitcoin	BTC	\$2.211 T	\$111,336
6	Amazon	AMZN	\$2.135 T	\$201.14
7	Alphabet (Google)	GOOG	\$2.092 T	\$173.32
8	Silver	SILVER	\$1.820 T	\$32.34
9	Saudi Aramco	2222.SR	\$1.692 T	\$7.00
10	Meta Platforms (Facebook)	META	\$1.591 T	\$633.06

Bitcoin's Market Cap surpassed silver's market cap, taking the 5th spot in May (Source: Companymarketcap.com).

Importantly, this milestone was not momentary. Throughout 2025, Bitcoin maintained a market capitalization above \$2 trillion for approximately 207 days, roughly 56% of the year. While Bitcoin fell below the \$2 trillion level in mid-November and ultimately closed the year beneath that threshold, the duration spent above it is far more meaningful than the year-end snapshot alone.



Bitcoin 207 Days Above the \$2T Market Cap (Source: TradingView).

Sustained scale matters. For institutional investors, durability and liquidity are prerequisites for meaningful capital deployment. Many allocators are constrained not by conviction, but by market depth, liquidity, and the ability to enter and exit positions without materially impacting price. The number of days Bitcoin spent above key valuation thresholds offers a more relevant signal of investability than isolated all-time highs. By maintaining a \$2 trillion-plus market capitalization for the majority of the year, Bitcoin demonstrated a level of depth and resilience that materially changes how it can be integrated into institutional portfolios. At this scale, Bitcoin behaves less like a speculative trade and more like a macro asset capable of absorbing large inflows, supporting derivative markets, and sustaining long-term strategic allocations.

## 2. Drivers of price & narratives in 2025

### 2.1 Regulatory Clarity Reaches a Tipping Point

The maturation of Bitcoin in 2025 was not driven by price action alone. Regulatory clarity, long viewed as the missing prerequisite for institutional participation, reached critical mass across both Europe and the United States, materially reshaping how capital, infrastructure, and policy interact with the Bitcoin ecosystem.

In the European Union, the Markets in Crypto-Assets (MiCA) regulation came into force on January 1, 2025. This comprehensive framework harmonized rules for exchanges, custodians, and stablecoin issuers. It created passporting rights for licensed firms, enabling them to offer digital asset services across the EU. This immediately reduced regulatory fragmentation and operational uncertainty, two long-standing barriers for institutional allocators.

The impact was swift. U.S. and Asian digital asset firms began expanding or establishing European operations to capitalize on the new regime. Companies such as Coinbase, Circle, and BitGo leveraged MiCA approvals to gain regulated access to EU markets, while Europe positioned itself as a jurisdiction of clarity rather than experimentation. For institutions, MiCA transformed Europe into a credible and scalable environment for digital asset exposure, custody, and settlement.

MiCA also reshaped the stablecoin landscape. Tether's USDT failed to meet the regulation's licensing, transparency, and legal-entity requirements, effectively sidelining it from regulated European venues. As a result, USDT ceded market share to MiCA-compliant alternatives such as USDC. This shift reinforced a broader trend: regulatory alignment, not market dominance alone, now determines access to institutional capital.



Image Credit: BlockchainX

Across the Atlantic, U.S. regulators continued to formalize Bitcoin's role within traditional financial markets. By June 2025, spot Bitcoin ETFs approved in early 2024 had surpassed \$1 trillion in cumulative trading volume, with assets under management exceeding \$100 billion. In the first quarter, the Securities and Exchange Commission issued additional guidance on risk disclosures, custody standards, and market surveillance. Rather than slowing adoption, these refinements strengthened institutional confidence, positioning ETFs as a compliant and scalable onramp for Bitcoin exposure.

Parallel to ETF oversight, the U.S. Department of the Treasury increased scrutiny of privacy-enhancing tools and crypto mixers, citing concerns around illicit finance. While this unnerved parts of the broader crypto ecosystem, Bitcoin largely avoided negative spillover. Its transparent ledger, expanding KYC infrastructure, and

growing role in regulated markets reinforced its positioning as a “clean” digital asset—one increasingly acceptable to institutions and, in some cases, nation-states.

Regulatory momentum extended beyond financial markets into fiscal and industrial policy. On July 4, President Trump signed legislation restoring 100% bonus depreciation for business property. For Bitcoin miners, this was a material tailwind. The ability to fully expense ASICs, cooling systems, and infrastructure in the year they are placed in service improves cash flow, accelerates return on investment, and lowers the cost of scaling. The bill also allows full depreciation for production-related real estate, benefiting companies building or expanding mining facilities in the U.S. While the phase-out of federal wind and solar tax credits after 2027 may challenge renewable-focused miners, the overall impact of the legislation strongly favours capital-intensive mining operations—particularly those manufacturing or deploying domestically.

Further reinforcing this shift, the signing of the GENIUS Act marked a turning point in U.S. crypto policy. The Act introduced the country’s first federal framework for dollar-backed stablecoins, formally recognizing them as legitimate financial instruments. While focused on stablecoins, the broader implications are clearly positive for Bitcoin. A supportive regulatory stance encourages investment, institutional adoption, and integration with the traditional financial system. President Trump’s framing of crypto as “good for the dollar, good for the nation” reflects a growing alignment between digital assets and U.S. monetary strategy.

Perhaps the most consequential development came on August 7, when President Trump signed an executive order authorizing Americans to allocate a portion of their 401(k) retirement savings into Bitcoin and other digital assets. The order directed the Department of Labor to expand the definition of “permissible assets” within retirement plans, effectively opening the \$8.7 trillion U.S. 401(k) system to tax-advantaged Bitcoin exposure.

Until now, fiduciary constraints and regulatory interpretations had largely excluded Bitcoin from employer-sponsored retirement accounts. This directive removes those barriers, allowing millions of American workers to gain exposure through existing retirement structures rather than self-directed IRAs or bespoke brokerage solutions. At a minimum, this development amplifies the role of spot Bitcoin ETFs as the primary allocation vehicle. More broadly, it redefines what regulators, employers, and asset managers consider acceptable within long-term retirement portfolios.

Taken together, these regulatory developments mark a decisive shift. Bitcoin is no longer operating at the edge of the financial system—it is being embedded within it. The combination of European harmonization, U.S. ETF maturation, mining-friendly fiscal policy, stablecoin regulation, and retirement-plan access may prove more consequential for Bitcoin’s long-term trajectory than any single market cycle, opening the door to sustained institutional capital measured in trillions rather than billions.

## 2.2 Bitcoin as a Sovereign Asset

**Total Holdings Governmental Entities: +131.645BTC / +25.6%**

**Open: 513,726 BTC | Close: 645.371 BTC**

In March 2025, the United States took a landmark step toward formalizing Bitcoin’s role in sovereign finance. Through an executive order signed by President Donald Trump, the U.S. established a Strategic Bitcoin Reserve, signalling a paradigm shift in how Bitcoin is perceived at the highest levels of government. Bitcoin was no longer treated solely as a seized asset or alternative investment, but as part of the nation’s long-term economic and strategic framework.

The reserve was designed to position the U.S. as a leader in digital asset stewardship, similar to how it manages gold and other strategic commodities. Crucially, the reserve is funded primarily through Bitcoin obtained via criminal and civil forfeiture proceedings. This structure allows the government to build a sizable

digital asset stockpile without direct taxpayer expenditure, relying instead on assets already under federal control.



President Donald Trump Signing the Executive Order to Establish a Strategic Bitcoin Reserve (Image: BitcoinMagazine)

By the end of 2025 328,372 BTC held by the U.S. Treasury has been allocated to the Strategic Bitcoin Reserve, making the United States the largest known sovereign holder of Bitcoin. The executive order explicitly prohibits the sale or liquidation of these holdings, mandating that Bitcoin be retained as a long-term store of value rather than monetized opportunistically. Alongside this reserve, a broader U.S. Digital Asset Stockpile was created to centrally manage other confiscated cryptocurrencies.

Globally, governments collectively hold an estimated 645,371 BTC, representing roughly 3.1% of total supply. While modest in percentage terms, this equates to tens of billions of dollars in sovereign Bitcoin wealth. After the United States, China and the United Kingdom rank among the largest holders, primarily through law enforcement seizures. China's position remains opaque following the confiscation of over 190,000 BTC from the PlusToken scam, while the UK controls approximately 61,000 BTC seized in a major money laundering case, assets that policymakers are now debating whether to liquidate or retain.

Beyond major powers, a growing number of countries are quietly accumulating Bitcoin through alternative pathways. Bhutan stands out as a unique case, having mined Bitcoin using surplus hydropower through its sovereign investment arm. For Bhutan, Bitcoin represents a material share of national wealth rather than a speculative hedge. El Salvador, while retreating from Bitcoin's legal tender status under IMF pressure, continues to accumulate BTC as a long-term sovereign asset. Ukraine, by contrast, demonstrated Bitcoin's utility as a wartime financial tool, rapidly deploying donated BTC rather than stockpiling it.

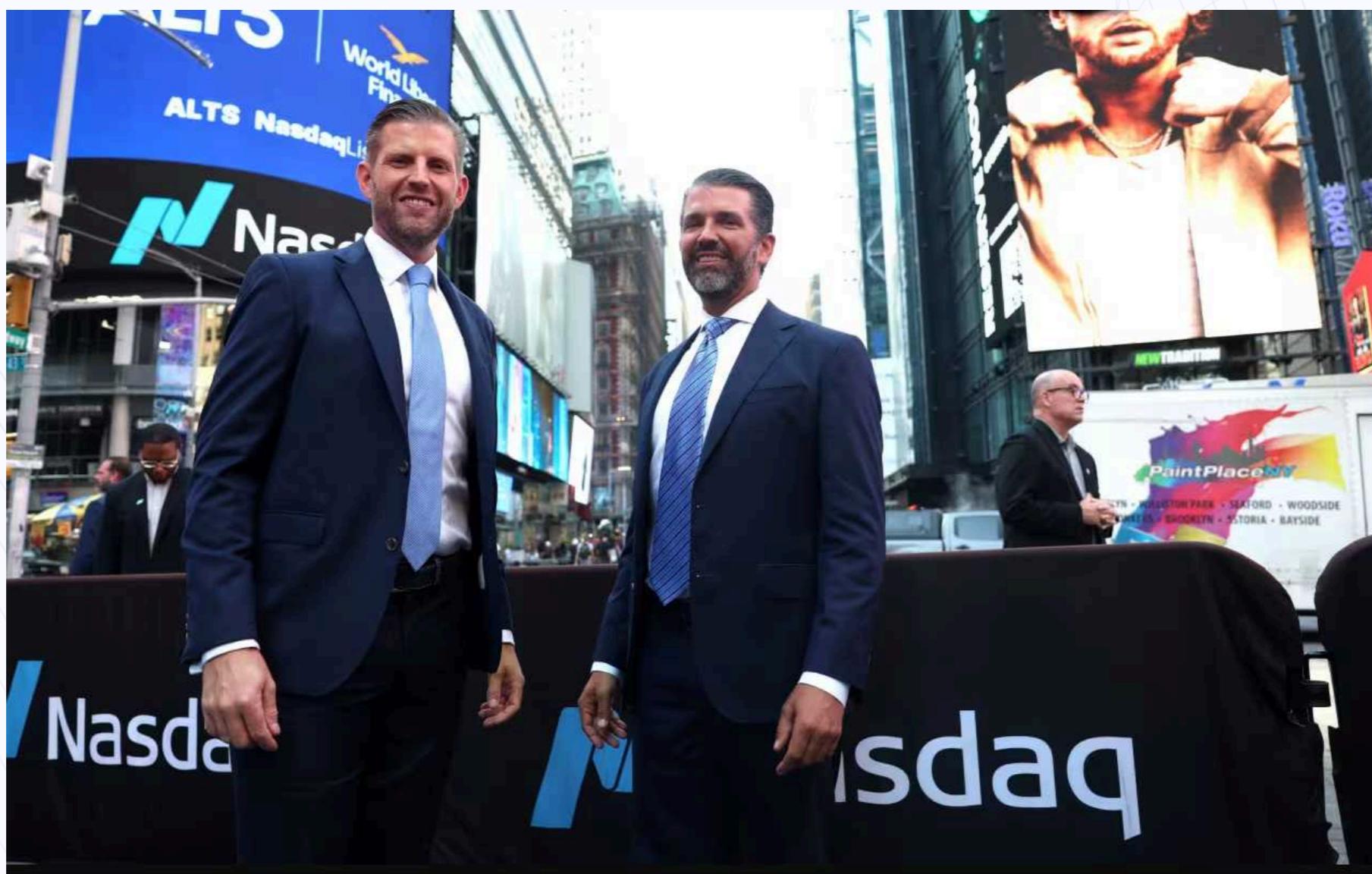
The common thread is clear: Bitcoin is no longer solely a market asset. Whether accumulated loudly through policy, quietly through mining, or indirectly through enforcement actions, Bitcoin has become a tool of statecraft. Sovereign participation, both explicit and discreet adds a new structural layer to Bitcoin's demand profile, one that operates independently of traditional market cycles.

Country	BTC Holdings
United States	328,372
China	190,000
United Kingdom	61,245
Ukraine	46,351
El Salvador	7,519
United Arab Emirates	6,420
Bhutan	5,984

BTC Holdings by Governmental Entities (Source: [BitcoinTreasuries.net](https://www.bitcointreasuries.net))

## 2.3 The Trump Brothers and the Rise of American Bitcoin

In 2025 the Trump family's direct entry into U.S. Bitcoin mining and accumulation underscored the political normalization of Bitcoin. In Q2 2025, Hut 8 Corp. restructured its U.S. mining operations under a newly formed entity, American Bitcoin Corp. (Nasdaq: ABTC). Initially launched as American Data Centers, the company was rebranded following a significant equity investment by Eric Trump and Donald Trump Jr. Hut 8 contributed the majority of its U.S.-based ASIC inventory in exchange for a controlling stake, while continuing as the exclusive infrastructure and operations partner. All existing and future U.S. compute activity under Hut 8 now sits within American Bitcoin.



ABTC Getting Listed on the Nasdaq (Image: [allpennystocks](https://www.allpennystocks.com)).

The strategic ambition is explicit: to build one of the world's largest and most efficient Bitcoin mining platforms while accumulating a substantial private Bitcoin reserve. The model mirrors the U.S. government's own Strategic Bitcoin Reserve, prioritizing long-term accumulation over opportunistic liquidation.

Execution has been rapid. By mid-December 2025, American Bitcoin had grown its strategic reserve to approximately 5,098 BTC, placing it among the top 20 publicly traded Bitcoin treasury companies globally, according to BitcoinTreasuries.net—just over three months after its Nasdaq listing. Holdings were accumulated through a combination of in-house mining and strategic market purchases, with a portion of BTC pledged as collateral for miner acquisitions under a supply agreement with Bitmain. In early December alone, the company added roughly 416 BTC in a single week, underscoring the pace of accumulation.

Beyond scale, American Bitcoin is advancing new disclosure standards aimed at institutional investors. The company introduced “Satoshis per Share” (SPS), a metric that measures the amount of Bitcoin backing each outstanding share. As of December 8, SPS stood at 507 satoshis per share, up more than 17% in just over one month. A complementary metric, Bitcoin Yield, tracks the percentage change in SPS over time, offering investors clearer visibility into per-share Bitcoin exposure rather than headline BTC balances alone. Management has emphasized that vertically integrated mining allows Bitcoin to be acquired at a lower average cost than pure market purchases. Structurally, American Bitcoin is positioning itself as a scalable accumulation platform.

The broader signal is difficult to ignore. The Trump family’s involvement represents a clear political endorsement of Bitcoin mining at a time when U.S. policy is increasingly framing digital assets as strategic infrastructure. For domestic miners, it validates mining as an aligned industrial activity. For international capital, it signals that U.S. Bitcoin mining and accumulation now operate with explicit political and institutional backing. Corporate Bitcoin strategies are evolving beyond passive balance-sheet exposure toward vertically integrated models combining mining, accumulation, and treasury optimization—and American Bitcoin has emerged as one of the clearest expressions of that shift in 2025.

## 2.4 The Acceleration of Corporate Bitcoin Treasuries and DATs

**Corporate Holdings: +494,918 BTC / +82.7%**

**Open: 598,732 BTC | Close: 1,093,650 BTC**

The first half of 2025 marked a decisive inflection point for corporate Bitcoin adoption. What began as a contrarian experiment led by a handful of outliers has evolved into a recognized treasury strategy deployed by companies across sectors and geographies. Bitcoin is no longer treated solely as a hedge or speculative asset, it is increasingly used as a core balance-sheet instrument and capital allocation strategy.

Corporate balance sheets provided a clear signal of rising institutional conviction. Major financial institutions expanded access to Bitcoin-related products, while an increasing number of public companies announced plans to accumulate Bitcoin as a long-term reserve asset. High-profile purchases by Strategy (formerly MicroStrategy), Metaplanet, and a wave of new entrants reflected the normalization of Bitcoin as a treasury asset rather than an exception.

A key valuation metric for Bitcoin treasury companies is mNAV (multiple of Net Asset Value), which compares a company’s market capitalization to the value of its net Bitcoin holdings. In simple terms, mNAV indicates whether the market is valuing the company at a premium or discount to the Bitcoin on its balance sheet. An mNAV above 1.0x suggests investors assign additional value to factors such as capital strategy, leverage management, or future BTC accumulation, while an mNAV below 1.0x reflects skepticism around execution risk, balance-sheet structure, or dilution.

The sharp mNAV compression observed across several new corporate Bitcoin treasury adopters in 2025 was not solely a function of Bitcoin price movements. In many cases, valuations expanded aggressively during early accumulation phases, driven by market sentiment rather than operating fundamentals. As Bitcoin prices normalized, mNAV levels adjusted accordingly. This pattern is typical in early adoption phases and is likely to smooth over time as treasury strategies mature and valuation expectations recalibrate.

While isolated stress events may occur among poorly capitalized firms, the broader Bitcoin market in 2025 benefited from deeper liquidity, reduced leverage, and a more diversified investor base compared with previous cycles. Strategy remained the dominant force, it continued to refine its Bitcoin-native capital markets playbook, combining equity issuance, preferred shares, and convertible instruments to fund accumulation. By mid-year, Strategy had surpassed 600,000 BTC and by the end of 2025 it had accumulated 672,497 BTC, cementing its position as the largest corporate holder globally. Its approach of raising capital explicitly to

acquire Bitcoin and optimizing for Bitcoin per share, has become the blueprint for a new category of companies now commonly referred to as Digital Asset Treasury (DAT) firms.

Rank	Company	Ticker	Bitcoin Holdings
1	Strategy	MSTR	672,497
2	MARA Holdings, Inc.	MARA	53,250
3	Twenty One Capital	XXI	43,514
4	Metaplanet Inc.	MTPLF	35,102
5	Bitcoin Standard Treasury Company	BSTR	30,021
6	Bullish	BLSH	24,300
7	Riot Platforms, Inc.	RIOT	19,324
8	Coinbase Global, Inc.	COIN	14,548
9	Hut 8 Mining Corp	HUT	13,696
10	CleanSpark, Inc.	CLSK	13,011
11	Trump Media & Technology Group Corp.	DJT	11,542
12	Tesla, Inc.	TSLA	11,509

12 Publicly Traded Companies Held over 10,000 BTC at the End of 2025 (Source: [BitcoinTreasuries.net](https://www.bitcointreasuries.net))

New entrants reinforced this shift. Twenty One, backed by Cantor Fitzgerald, SoftBank, Tether, and Bitfinex and led by Jack Mallers, emerged as one of the most closely watched new DATs. Its stated objective, maximizing Bitcoin per share through Bitcoin-native KPIs, preferred equity, and structured financing, illustrates how corporate Bitcoin strategies are becoming increasingly sophisticated and purpose-built.

Importantly, this trend is no longer U.S.-centric. Companies across Asia, Europe, and Latin America adopted Bitcoin in 2025. Tokyo-listed Metaplanet, Brazil's OranjeBTC, Hong Kong based Boyaa Interactive, France's Bpifrance and The Blockchain Group all announced Bitcoin allocations. This geographic diversification reflects growing corporate concern over long-term fiat debasement and balance-sheet resilience rather than short-term price speculation.

By the end of 2025, more than 100 public companies collectively held over 1 million BTC, representing roughly 5% of total supply. While the pace of new corporate entrants slowed in the second half of the year particularly among smaller firms, the largest and best-capitalized treasuries continued to accumulate quietly, absorbing supply even as broader market momentum cooled.

The signal is clear: corporate Bitcoin adoption has moved from experimentation to financial strategy. DATs now form a structural layer of Bitcoin demand, one that operates independently of traditional market cycles and increasingly influences capital markets, miner economics, and long-term supply dynamics.

## 2.5 Bitcoin Miners as Strategic Treasury Holders

Bitcoin miners were the first entities to build Bitcoin treasuries not by purchasing BTC on the open market, but by earning it directly through block rewards. Long before corporate balance sheets adopted Bitcoin as a reserve asset, miners were already managing BTC as working capital, collateral, and long-term inventory. In doing so, they pioneered what would later evolve into Bitcoin-native treasury management.

What distinguishes a miner treasury strategy from individual “hodling” is intention. A corporate Bitcoin treasury is an active capital management decision, shaped by liquidity needs, financing structures, regulatory constraints, and investor expectations. Historically, miners sold a large share of production to fund operations. In 2025, that behavior shifted. Facing tighter post-halving margins and increased scrutiny from capital markets, many public miners opted to retain more Bitcoin or even buy on-market, rather than immediately monetize production.

This change elevated miner treasuries from operational byproducts to core elements of investor positioning. Among public miners, three models stood out in 2025: MARA Holdings, American Bitcoin Corp., and Cango Inc.

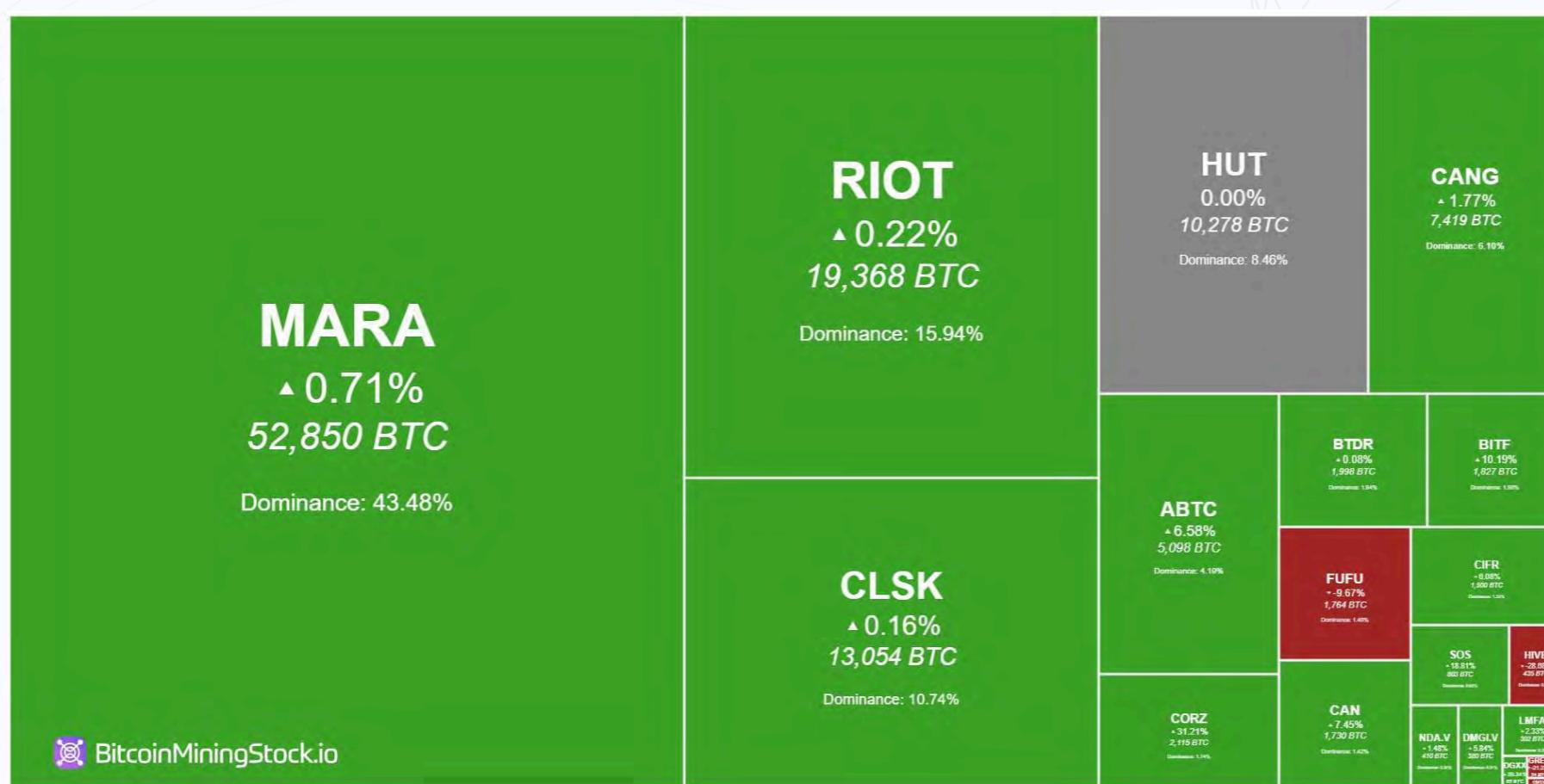
MARA Holdings continued to operate at scale while actively accumulating. During the first nine months of

2025, MARA purchased 2,597 BTC for \$282 million, in addition to its mined production. By Q3, total holdings reached 52,850 BTC, making MARA the second-largest public Bitcoin holder globally. Roughly one-third of its treasury was actively utilized through lending, collateralization, or yield strategies highlighting a sophisticated, non-passive approach.

American Bitcoin Corp. was treasury-first by design. Listed in September 2025, it entered public markets with Bitcoin accumulation as its core mandate. By Q3, it held 4,783 BTC, combining mined coins with direct purchases. With no diversification into AI or HPC, ABTC positioned itself as a pure-play Bitcoin proxy, offering investors direct exposure to both mining and treasury growth.

Cango Inc. adopted the most conservative strategy. By December, it had accumulated over 7,000 BTC entirely through mining, retaining 100% of production without external capital raises or treasury sales. Quiet execution and full retention made Cango a rare example of miner-led accumulation without financial engineering.

Together, these approaches illustrate how miners have evolved from forced sellers into strategic Bitcoin treasury managers, shaping a distinct and increasingly important layer of corporate Bitcoin demand.



Heatmap BTC Holdings Public Mining Companies (Source: BitcoinMiningStocks.io).

## 2.6 ETFs as a Structural Amplifier of Bitcoin Demand

**ETF Holdings:** +192,670 BTC / +14.8%

**Open:** 1,298,054 BTC | **Close:** 1,490,724 BTC

**ETF AUM:** +\$9.15 B / +8.4%

**Open:** \$108.66 B | **Close:** \$117.81 B

A defining driver of Bitcoin's price action in 2025 was the continued expansion of spot Bitcoin ETFs. What began in early 2024 as a breakthrough in market access matured in 2025 into a structural force shaping liquidity, supply dynamics, and institutional participation.

By the end of the first half of 2025, U.S.-listed spot Bitcoin ETFs held more than \$133 billion in assets under management (AUM), peaking near \$135 billion in May, coinciding with Bitcoin's rally to new all-time highs around \$112,000. In October, as Bitcoin pushed higher again, total ETF AUM briefly reached the year's high of approximately \$165 billion, ending the year at \$117.81 billion amid heightened volatility and risk-off sentiment.

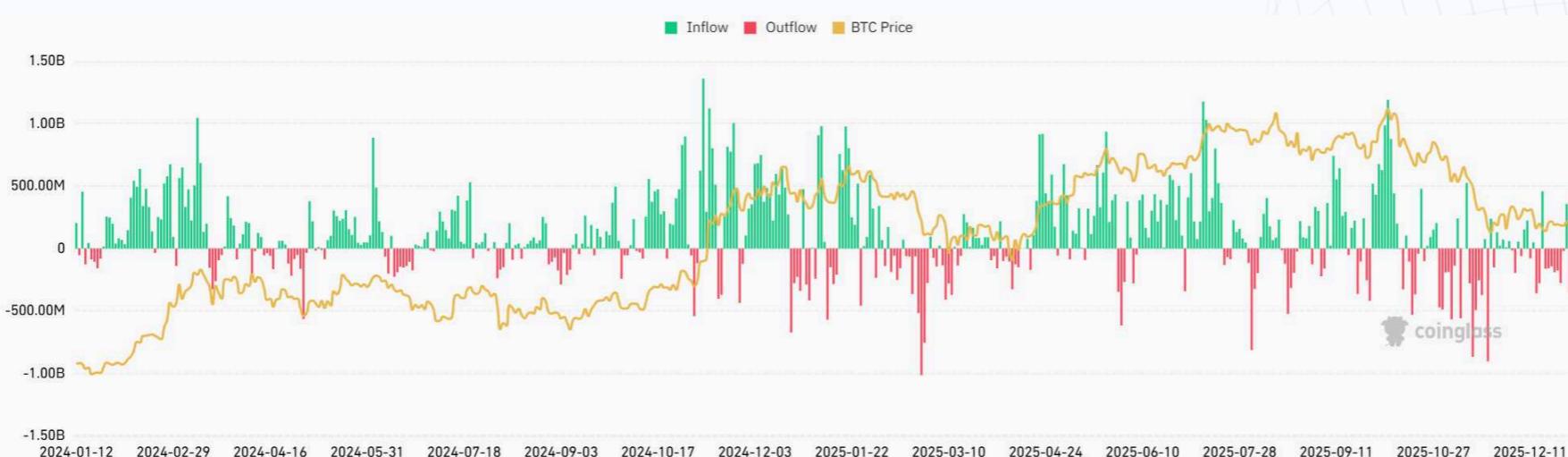


AUM Reaching a High of \$165 Billion in October 2025 (Source: Coinglass).

On June 11, cumulative trading volume across U.S. spot Bitcoin ETFs surpassed \$1 trillion, less than 18 months after launch. While cumulative volume reflects trading activity rather than net capital inflows, crossing this threshold placed Bitcoin ETFs among the most liquid and actively traded products in global capital markets alongside vehicles such as the Vanguard S&P 500 ETF (VOO) and the Invesco QQQ Trust (QQQ). Bitcoin had transitioned from a specialist allocation into a permanent fixture of institutional market infrastructure.

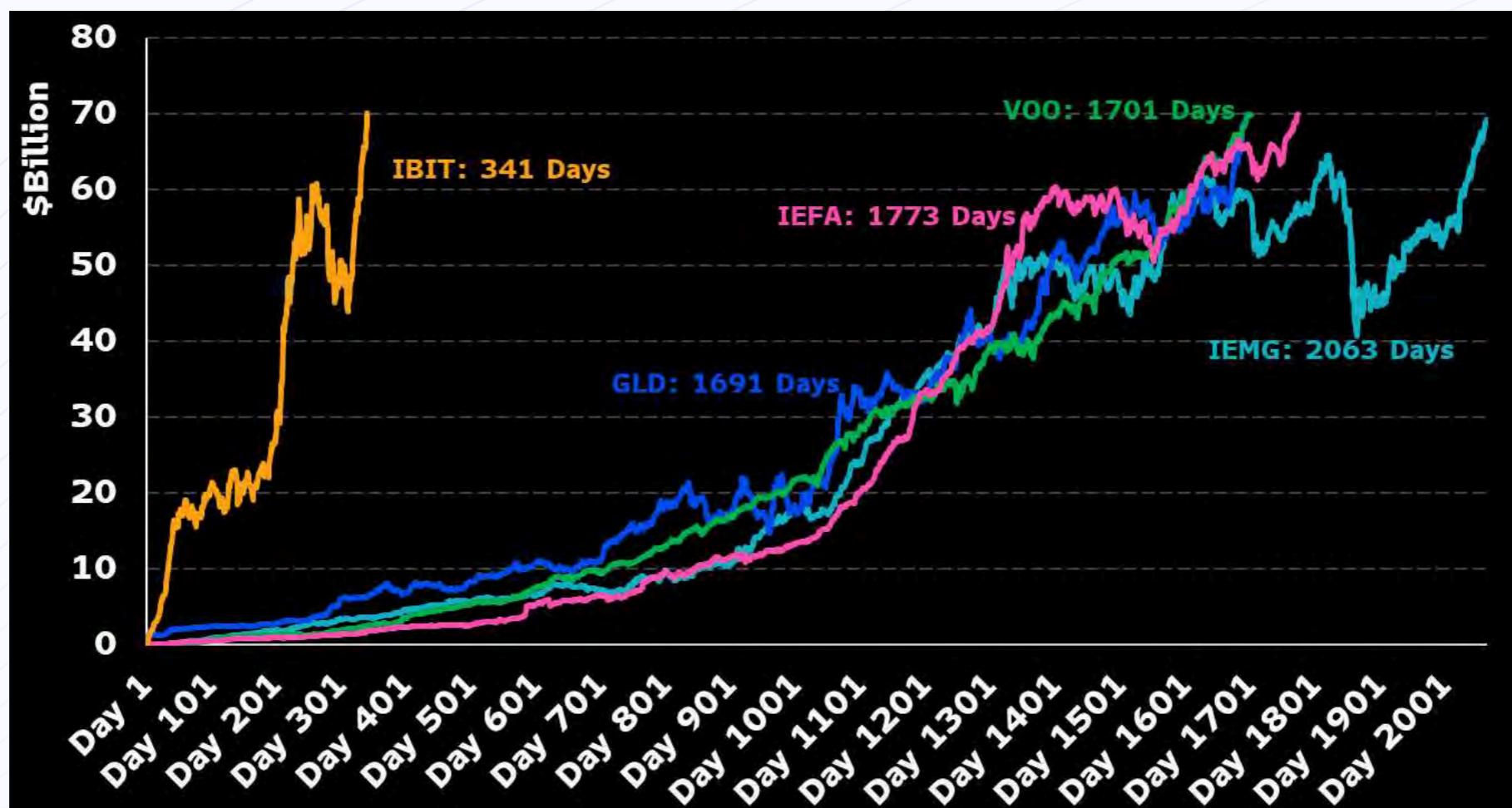
ETF flows in 2025 were episodic but powerful. The strongest inflow period occurred between April and July, reflecting heightened institutional demand as Bitcoin pushed to new highs. A renewed wave of inflows also emerged in early October, with October 6 marking the largest single-day inflow of the year at \$1.19 billion.

Volatility returned in the second half of the year. August opened with a sharp outflow, and conditions deteriorated further in November as risk-off sentiment took hold. November recorded the two largest outflow days of 2025, including a \$903 million single-day withdrawal, alongside four consecutive weeks of net redemptions. Grayscale's GBTC accounted for a significant share of these exits, although BlackRock's iBIT also experienced its largest daily outflow since launch. Importantly, ETF flows largely followed price action rather than leading it, reinforcing their role as amplifiers of market momentum rather than the primary drivers of directional moves.



Strong Inflows Throughout 2025 Followed by a 6 Week of Outflows into the End of the Year (Source: Coinglass).

At the center of this expansion was BlackRock's iShares Bitcoin Trust (iBIT), which became the fastest-growing ETF in history. iBIT crossed \$70 billion in AUM in just 341 days, compared with 1,691 days for GLD and 1,701 days for VOO. By the end of 2025, iBIT alone held over 770,000 BTC, accounting for almost half of all Bitcoin held by U.S. spot ETFs and overtaking MicroStrategy as the largest single institutional holder of Bitcoin. The symbolic significance was clear: the world's largest asset manager had become Bitcoin's largest custodian.



Strong Inflows Throughout 2025 Followed by a 6 Week of Outflows into the End of the Year (Source: Coinglass).

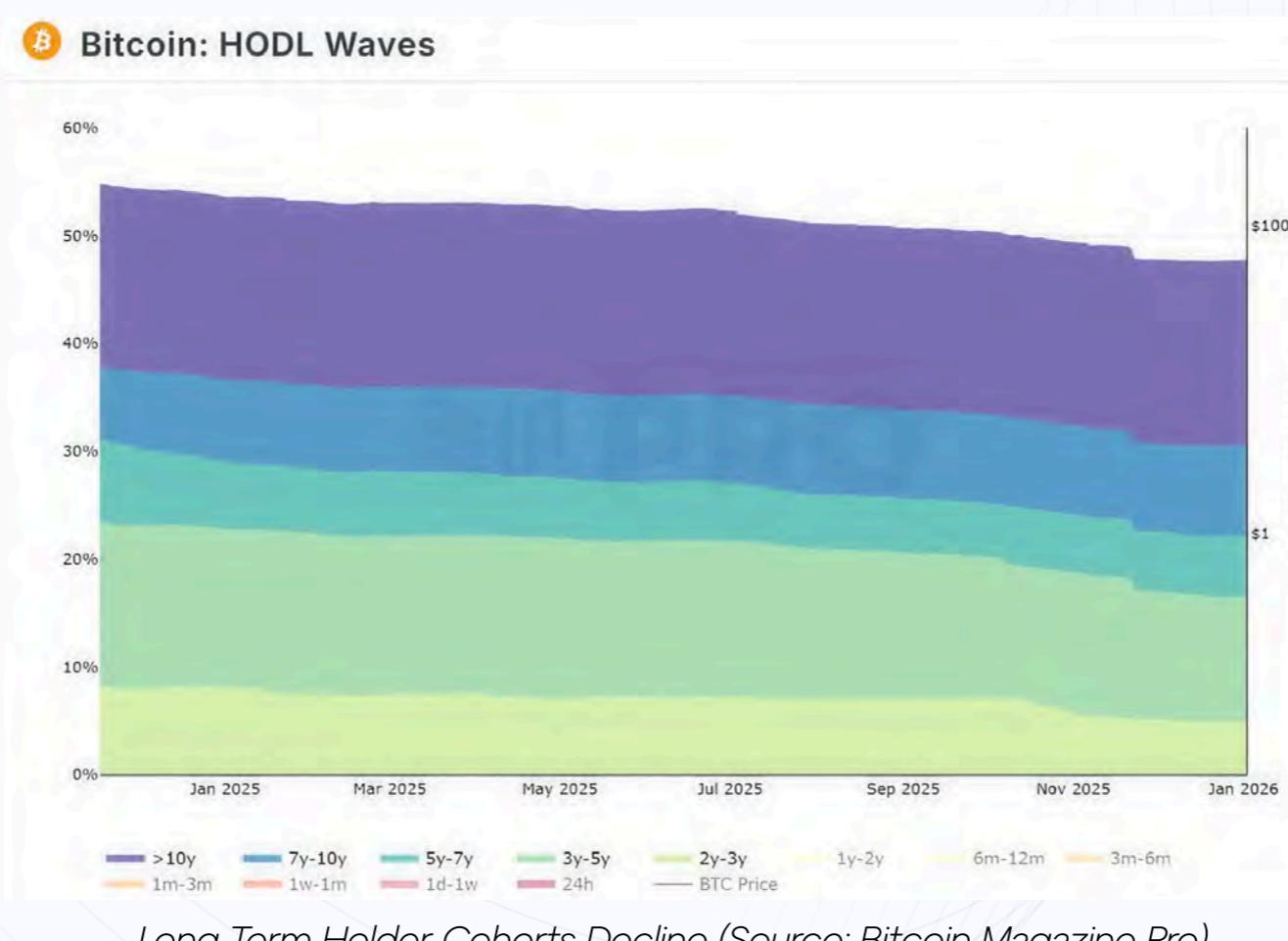
Beyond scale, ETFs began to influence Bitcoin's supply mechanics directly. Following the April 2024 halving, new issuance fell to roughly 450 BTC per day. During periods of elevated ETF demand, daily purchases consistently exceeded this level, absorbing all newly mined supply and tightening liquidity in the spot market. ETFs evolved from passive exposure tools into active participants in price formation.

By year-end, ETF issuers collectively held over 1.6 million BTC, representing roughly 7.6% of total supply. Despite short-term volatility, spot ETFs have become one of the most durable sources of Bitcoin demand anchoring institutional participation and reshaping Bitcoin's market structure in a way that is unlikely to reverse.

While ETF flows introduced short-term volatility around inflows and outflows, they also created a persistent structural bid for Bitcoin. ETF ownership shifted supply toward longer-duration holders, contributing to a more stable ownership base than in previous cycles.

## 2.7 Sell Pressure From Long-Term Holders

A key driver of Bitcoin's price stagnation and decline in Q4 has been sustained selling pressure from long-term holders. This behaviour is clearly visible in HODL Waves, where the darkest bands—representing coins held for many years—have been steadily contracting. When these long-dormant cohorts begin to shrink, it signals that early holders are moving coins back into circulation, typically with the intent to sell.



Long Term Holder Cohorts Decline (Source: Bitcoin Magazine Pro)

Over the past year, this pattern has been persistent rather than abrupt. Long-term holders have not exited in panic, but through gradual, orderly distribution. Macro analyst Jordi Visser characterizes this phase as Bitcoin's "IPO moment", a transition where early believers monetize part of their holdings while new investors absorb supply. As in traditional equity markets, this process tends to produce consolidation rather than collapse.

Bitcoin's price action reflected this dynamic. Despite broader market strength, BTC has traded sideways in extended ranges, frustrating sentiment without breaking down in capitulation. An estimated ~815,000 BTC has been distributed by long-term holders over recent months.

This distribution strengthens Bitcoin's long-term structure. Ownership is becoming less concentrated and more fragmented across institutions, funds, and newer holders with different time horizons. As Visser notes, this is "what success looks like", a necessary step in Bitcoin's evolution from a revolutionary asset into a durable, institutional-grade monetary instrument. Reduced volatility and broader ownership are likely outcomes once this distribution phase runs its course.

## 2.8 Bitcoin-Backed Lending as a Treasury Tool

As Bitcoin matures into an institutional asset, miners and long-term holders have increasingly turned to Bitcoin-backed lending to access liquidity without selling their BTC. This trend accelerated in 2025, particularly among miners facing compressed margins and higher capital requirements post-halving.

While BTC-collateralized lending is not new, its structure has changed materially since the failures of 2021. Platforms such as Celsius and BlockFi collapsed under rehypothecation and opaque risk management, while miners suffered from hardware-backed loans as ASIC values fell 70–80%, forcing lenders like NYDIG to repossess fleets. These events pushed the market toward direct BTC collateralization, conservative loan-to-value ratios, transparent custody, and stricter liquidation frameworks.

Modern BTC-backed loans typically carry 25–70% LTVs, with institutional structures clustering around 40–50%, and interest rates ranging from 6–12% APR. For miners, these loans are strategically powerful. They provide working capital and CapEx financing without liquidating Bitcoin, preserve long-term upside, avoid taxable sales, and smooth cash flow across volatile hashprice cycles.

Innovation is accelerating adoption. Providers such as M2 and NiceHash now offer USDT loans repaid directly via hashrate income, integrating debt service with mining output. More broadly, traditional finance is moving in: platforms like Galoy's Lana enable banks to originate BTC loans, while institutions such as JPMorgan now accept Bitcoin-ETF shares as collateral. Bitcoin-backed lending is transitioning from a niche crypto product into a mainstream treasury instrument.

### 3. State of the Network

Network Hashrate: +277 EH/s / +34.9%

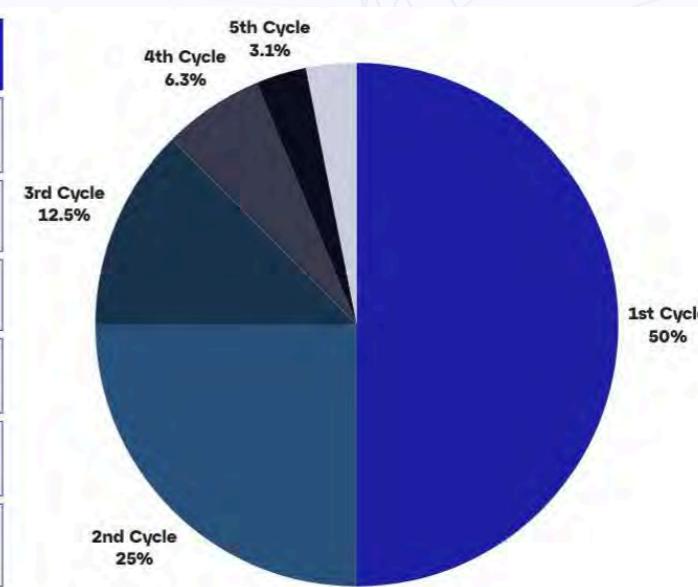
Open: 793 EH/s | Close: 1,070 EH/s | High: 1,128 EH/s | Low: 750 EH/s

#### 3.1 The 5% Era and the Economics of Scarcity

On November 17, Bitcoin crossed a critical milestone: more than 19.95 million BTC had been mined, leaving fewer than 1.05 million coins to be created over the next 115 years. This moment marks the beginning of what is increasingly referred to as the “5% Era”, a phase in which 95% of Bitcoin’s total supply is already in circulation, and the final 5% will be released at an extremely slow pace.

This outcome is the result of Bitcoin’s geometric issuance schedule, which halves the block reward every four years. Following the April 2024 halving, rewards dropped to 3.125 BTC per block, further compressing new supply. Engineered scarcity has always been central to Bitcoin’s value proposition, but in the 5% Era, its implications become more tangible for both investors and miners.

Halving	Year	Block Height	Block Subsidy	Total Supply
0	N/A	0	50	N/A
1	2012	210,000	25	50%
2	2016	420,000	12.5	75%
3	2020	630,000	6.25	87.5%
4	2024	840,000	3.125	93.75%
5	2028	1,050,000	1.5625	96.375%



Long Term Holder Cohorts Decline (Source: Bitcoin Magazine Pro)

For mining, this transition raises the bar. With diminishing issuance, competitiveness is increasingly defined by operational excellence rather than scale alone. Only miners with access to low-cost energy, optimized infrastructure, and disciplined fleet management are positioned to remain profitable as supply growth continues to decelerate.

#### 3.2 A Year Defined by Hashrate Volatility

Bitcoin entered 2025 with a seven-day average network hashrate of roughly 807 EH/s. The first quarter seemed relatively subdued, despite the first +100 EH/s drop in hashrate of the year happening in February. In April the network crossed 900 EH/s for the first time, kicking off a year characterized by repeated all-time highs and sharp drawdowns.

Volatility arrived quickly. In early April, hashrate surged to 929 EH/s before falling 12% to 817 EH/s, the steepest decline since May of the prior year and only the third time in Bitcoin’s history that more than 100 EH/s came offline in a short period. The recovery was equally fast. By May 7, the network rebounded to 935 EH/s, and on May 30 it reached another record of 947 EH/s.

June delivered the most extreme move of the year. After peaking near 950 EH/s on June 13, hashrate dropped to roughly 802 EH/s, a loss of 148 EH/s (15.6%), marking the largest single drawdown on record. These swings highlighted how sensitive the network has become to operational and macro frictions like weather-driven curtailments, grid constraints, fleet upgrade cycles, and post-halving margin compression.



Hashrate volatility persisted into the year-end. After the network set an all-time high of 1,128 EH/s on October 21, hashrate declined to 1,038 EH/s by December 8, a retracement of 90 EH/s (~8%). The timing of this decline sparked speculation about China-linked disruptions, particularly in Xinjiang. Multiple reports suggested a directive issued on December 5 ordered immediate closures in the region. Despite China's official 2021 ban, portions of the sector appear to have continued operating quietly on surplus power.

Former Foundry VP Kevin Zhang estimated that roughly 2 GW of capacity may have been taken offline in Xinjiang alone, potentially displacing around 500,000 machines. Even if China was the catalyst in December, it fits a broader 2025 pattern rather than a one-off shock.

The key question going forward is not whether hashrate can recover as it has repeatedly done so, but where displaced hashrate relocates and how quickly it comes back online, especially as competition for power and infrastructure continues to intensify globally.

### 3.3 Entering the Zetahash Age

Hashrate growth accelerated in the second half of the year. In September, Bitcoin crossed a historic threshold: the network surpassed 1 zetahash per second (ZH/s) for the first time, equivalent to  $10^{21}$  hashes per second—one sextillion computations securing the network every second. Notably, the seven-day moving average held above this level without retracement back below the 1,000 EH/s, signaling durability rather than a speculative spike.

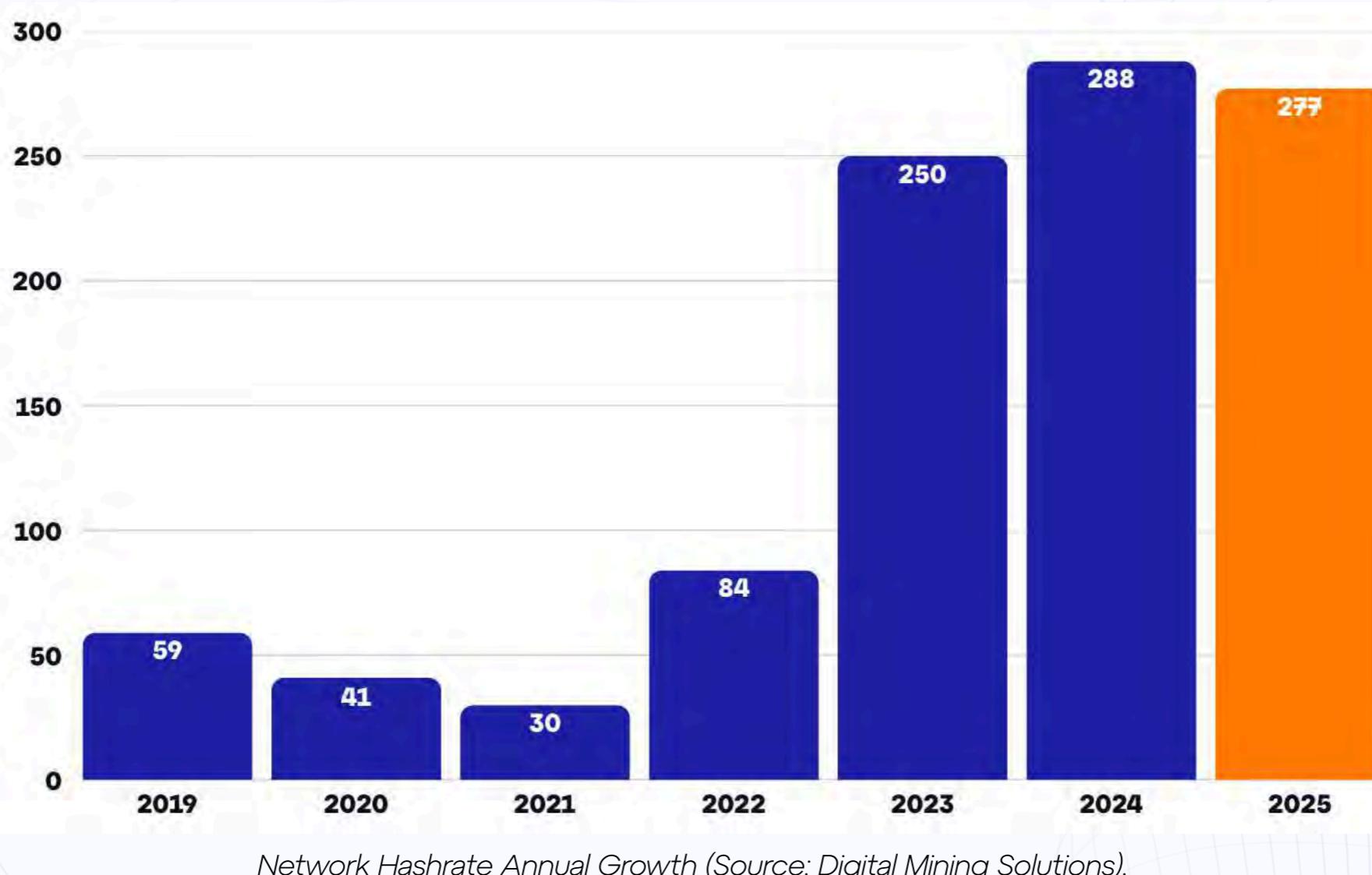


On October 21, the network reached a new record of 1,128 EH/s. To put this into perspective, Bitcoin crossed 100 EH/s only five years earlier in early 2020. In just half a decade, the network's computational power increased more than tenfold. This milestone reflects aggressive ASIC upgrades, global facility buildouts, and sustained operational optimization as mining continues to industrialize at scale.

Crossing the zetahash threshold underscored Bitcoin's transition into an industrial-scale network, where scale, efficiency, and access to low-cost power increasingly determine long-term competitiveness.

### 3.4 A Third Straight Year of Aggressive Network Expansion

Despite extreme volatility, 2025 marked the third consecutive year of exceptional hashrate expansion. The network added approximately 250 EH/s in 2023 and 292 EH/s in 2024. In 2025, net growth reached 300 EH/s when taking the all-time high in October and 277 EH/s by the end of the year representing a 34.9% year-over-year increase. The network expansion continues at historically elevated levels despite tighter economics.

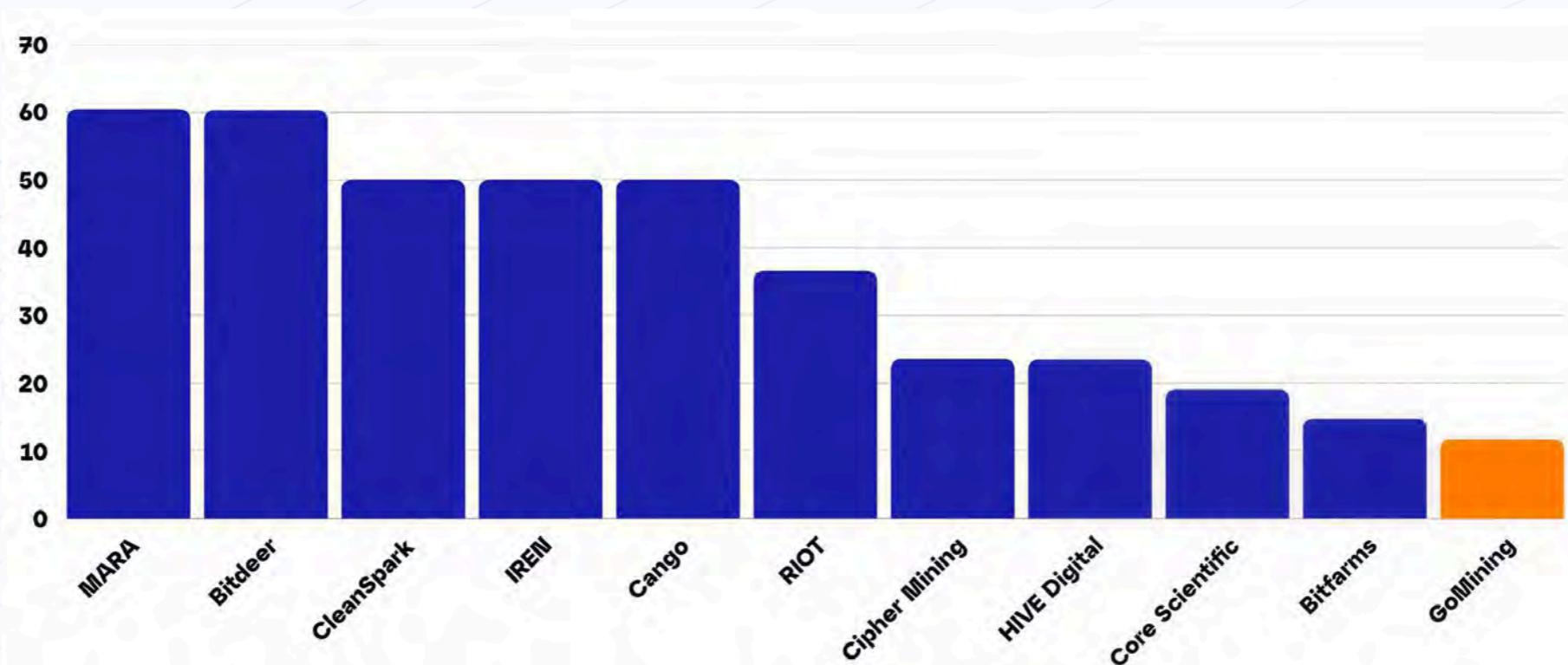


### 3.5 Public Mining Companies Drive Hashrate Concentration

Publicly traded mining companies continued to accelerate hashrate deployment throughout 2025, further consolidating their share of the global network. Supported by access to public capital markets, structured financing, and large-scale infrastructure development, leading public miners were able to expand even as margins compressed post-halving.

By the end of the first half of the year, CleanSpark and Cango had each surpassed 50 EH/s of operating capacity joining MARA as the largest operators by installed hashrate. IREN crossed the same threshold later in the year. Bitdeer reached over 60 EH/s of installed hashrate at the end of December. Taken together, MARA, CleanSpark, Cango, IREN, and Bitdeer controlled more than 270 EH/s, representing roughly 25% of total network hashrate.

By year-end, twelve publicly traded miners were operating fleets exceeding 10 EH/s, with their combined hashrate reaching approximately 432 EH/s, or 40% of the Bitcoin network. This marks a continued shift toward industrial-scale mining dominated by a relatively small group of well-capitalized operators.



Top 10 Publicly Traded Mining Companies by Hashrate (Source: [BitcoinMiningStocks.io](https://BitcoinMiningStocks.io)).

The trend underscores how competitiveness in Bitcoin mining is increasingly defined by scale, balance sheet strength, and infrastructure efficiency. As access to capital and low-cost power becomes more constrained, smaller and undercapitalized miners face growing pressure, while public miners with long-term financing and operational discipline continue to consolidate their position within the network.

### 3.6 Private Miners Scale Quietly

While publicly traded miners dominate headlines, private operators continued to scale aggressively behind the scenes in 2025, leveraging flexible capital structures, long-term planning horizons, and less quarterly market pressure. Several private players now rival public miners in operational scale and strategic influence.

GoMining stands out as one of the largest privately held mining operators globally. In its 8th year of operation, the company reached 11.7 EH/s, operating across nine data centers with a combined capacity of over 300 MW. Its infrastructure footprint spans multiple jurisdictions, supported by a global workforce of engineers, technicians, and network specialists. GoMining's expansion across Latin America, the MENA region, and the United States highlights how private capital continues to shape the geographic distribution of hashrate. With ongoing site acquisitions and strategic partnerships, the company is positioning itself as a long-term industrial player rather than a short-cycle opportunistic miner.



Milestones Achieved by GoMining in 2025 (Source: GoMining).

Another increasingly influential private actor is Tether, the issuer of USDT. Backed by more than 100,000 BTC on its balance sheet and approximately \$13 billion in profit generated in 2024, Tether has committed over \$2 billion to mining and renewable energy infrastructure across Uruguay, Paraguay, El Salvador, and Brazil. While the company has not disclosed its realized hashrate, its capital deployment, ownership, and development of an open-source Tether Mining OS signal serious long-term intent.

The rise of players like GoMining and Tether reflects a broader shift: private miners are no longer peripheral, but increasingly central to Bitcoin's industrial backbone. Their scale, capital depth, and strategic flexibility are becoming key contributors to network resilience and decentralization, even if much of their growth remains out of public view.

At the same time, the definition of a "private miner" is expanding. ASIC manufacturers themselves, most notably Bitmain, are now among the most important private sources of energized hashrate, increasingly operating machines directly or through closely linked entities. What was once a clear division between hardware supplier and miner is rapidly blurring, setting the stage for a deeper structural shift in which manufacturers evolve into some of the network's most powerful mining operators.

### 3.7 ASIC Manufacturers Accelerate the Shift to Self-Mining

One of the most consequential structural shifts in Bitcoin mining during 2025 was the acceleration of manufacturer-led self-mining. Faced with softening demand for new rigs, excess inventory, and long-term wafer commitments that could not easily be unwound, ASIC manufacturers increasingly chose to energize their own hardware rather than sell it. As a result, the traditional boundary between "hardware vendor" and "miner" began to dissolve.

The clearest example is Bitdeer. Over the course of 2025, Bitdeer transformed itself from a hybrid hosting and manufacturing business into one of the world's largest miners. Its self-mining fleet expanded from 8.9 EH/s at the end of 2024 to 45.7 EH/s by November 2025, driven primarily by large-scale deployments of its proprietary SEALMINER machines. The ramp was rapid and deliberate: 16.5 EH/s in June, 22.3 EH/s in July, 30 EH/s in August, and over 41 EH/s by late October. Management explicitly acknowledged that hardware originally intended for external customers was redirected to Bitdeer's own balance sheet. The financial impact was immediate. In Q3 2025, Bitdeer reported \$169.7 million in revenue, a 173% year-over-year increase, largely attributable to self-mining, while hosting and cloud-mining revenues declined as capacity was reallocated internally.

Canaan followed a similar, though smaller-scale, trajectory. Long known for its Avalon-branded ASICs, the company steadily expanded its self-mining footprint throughout 2025. By mid-year, Canaan had deployed approximately 8.6 EH/s, with most of that capacity actively operating across sites in the United States, Ethiopia, and other regions. By October, deployed capacity exceeded 9 EH/s, and the company surpassed 10 EH/s by the end of 2025. Importantly, Canaan exited its underperforming AI-chip business to refocus on Bitcoin mining and ASIC production, signaling a renewed commitment to vertical integration.

Region	Active Mining Projects	Energized Computing Power	Installed Computing Power	Expected Computing Power	Estimated Total Computing Power
America	3	3.83 EH/s	4.61 EH/s	0.28 EH/s	4.89 EH/s
Canada	1	0.02 EH/s	0.02 EH/s	0 EH/s	0.02 EH/s
Ethiopia	2	3.88 EH/s	4.56 EH/s	0.72 EH/s	5.28 EH/s
Middle East	1	0.04 EH/s	0.04 EH/s	0 EH/s	0.04 EH/s
Malaysia	1	0.08 EH/s	0.08 EH/s	0 EH/s	0.08 EH/s
<b>Global</b>	<b>8</b>	<b>7.85 EH/s</b>	<b>9.31 EH/s</b>	<b>1.00 EH/s</b>	<b>10.31 EH/s</b>

Canaan's Global Hashrate Footprint (Source: prnewswire).

A more opaque but potentially largest player is Bitmain. While Bitmain is not a publicly traded company and is not required to disclose proprietary hashrate, mounting evidence suggests it controls or influences a vast mining footprint through affiliated entities. Reporting by TheMinerMag and independent analysis from BitcoinMiningStock.io indicate that Cango's sudden rise above 50 EH/s was driven by transfers of Bitmain-linked hardware via Antalpah. Similar dynamics appear in BitFuFu, which manages more than 35 EH/s under

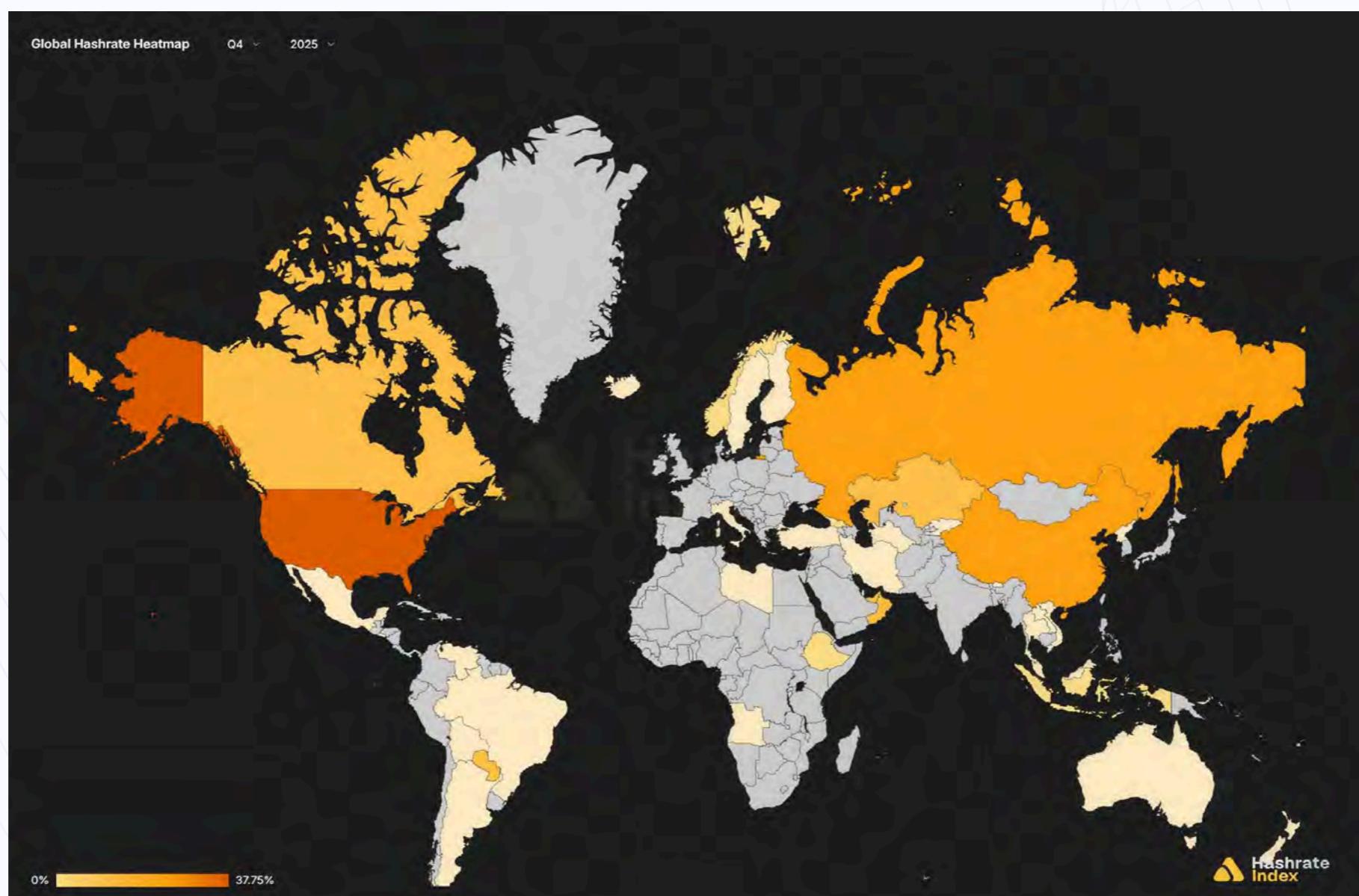
hosting and self-owned arrangements closely tied to Bitmain supply agreements. Additional transactions involving Hong Kong-listed firms acquiring large volumes of Bitmain's S21 Hydro machines further suggest a coordinated effort to keep hardware energized through proxies rather than direct disclosure. Taken together, Bitmain now appears adjacent to nearly 100 EH/s of capacity through direct and indirect exposure.

This pivot toward self-mining is likely structural rather than cyclical. Hardware demand has softened as miners contend with compressed post-halving margins and rising competition from AI/HPC for power infrastructure. At the same time, wafer and chip fabrication contracts lock manufacturers into production schedules regardless of downstream demand. Mining their own machines offers faster monetization, avoids discounting inventory, and captures value across the stack.

The implications for the industry are profound. Manufacturers mine at production cost rather than retail cost, giving them a structural advantage over traditional miners. As manufacturer-driven deployments continue even when profitability tightens, hashrate growth may persist longer than historical models would suggest intensifying competition, compressing margins, and accelerating consolidation. By 2025, Bitcoin mining had begun a decisive shift toward vertical integration, with ASIC manufacturers emerging as some of the network's most powerful operators.

### 3.8 Global Hashrate Concentration and Geographic Shifts

Bitcoin mining remains highly geographically concentrated, even as new regions begin to assert themselves. As of Q4 2025, the top ten countries control more than 85% of global hashrate, with the top three accounting for nearly 70%. This concentration underscores Bitcoin mining's deep industrialization, while also revealing a widening frontier as capital searches for low-cost energy and favorable policy environments.



Global Hashrate Heatmap (Source: HashrateIndex).

The United States remains the dominant jurisdiction, accounting for 37.8% of global hashrate (~389 EH/s). Its leadership is built on institutional capital, mature infrastructure, and regulatory clarity at the state level. However, 2025 marked a clear inflection point. Competition from AI and high-performance computing (HPC) workloads has slowed mining expansion, as hyperscalers and sovereign compute projects outbid miners for power and grid access. As a result, U.S. miners are increasingly pivoting toward hybrid models that combine mining, data-center leasing, and AI infrastructure.

Russia emerged as the second major hub, now hosting 15.5% of global hashrate (~160 EH/s). Sanctions-driven energy surpluses, particularly in hydro-rich Siberia and gas extraction sites, have made mining an attractive domestic monetization tool. Growth has shifted away from saturated retail grids toward flared gas and remote industrial energy. Russia's formal mining legislation in 2024 further accelerated industrial-scale deployment, though geopolitical risk remains high for foreign capital.

Perhaps the most striking development is the unofficial return of China, now estimated to host 14.1% of global hashrate (~145 EH/s). Despite the 2021 ban, underground mining has resurged, driven by surplus provincial energy, loosening enforcement, and strong domestic demand for ASIC hardware. With Chinese buyers now accounting for a significant share of global ASIC sales, China has quietly re-established itself as the third-largest mining jurisdiction. In December multiple reports pointed to renewed shutdowns in China, more specifically in Xinjiang, where an estimated ~2 GW of capacity—roughly 500,000 machines—was taken offline, reinforcing that China-linked disruptions remain recurring.

Beyond the traditional heavyweights, emerging regions are gaining ground. Paraguay (3.9%) continues to climb on the back of surplus hydro from Itaipú. The UAE (3.2%) and Oman (2.9%) have positioned themselves as capital-rich hosts willing to deploy advanced cooling and immersion systems. Ethiopia (1.9%) entered the global top ten for the first time, highlighting Africa's growing role in hydro-powered mining. Canada (2.9%), Kazakhstan (2.1%), and Indonesia (1.6%) round out the list, each shaped by distinct energy and regulatory dynamics.

Taken together, the 2025 distribution reflects a dual reality: Bitcoin mining is still concentrated, but its geographic base is broadening. Growth is increasingly flowing toward regions with cheap energy, fewer infrastructure bottlenecks, and less competition from AI, signaling a gradual rebalancing of global hashpower in the years ahead.

## 4. Mining Economics Compress

### 4.1 Difficulty Dynamics in a Volatile Hashrate Environment

Difficulty: +38.48T / 35.1%

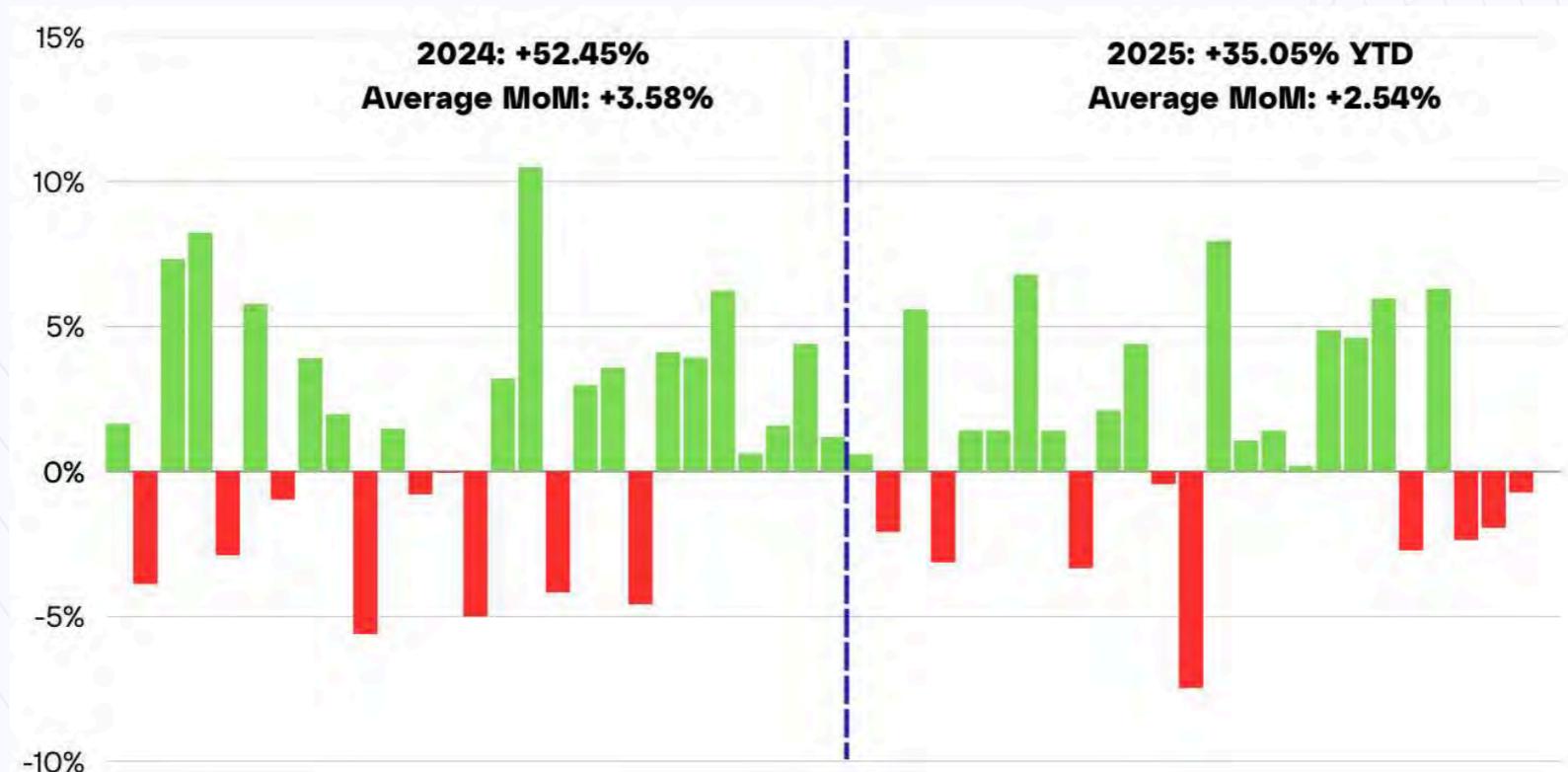
Open: 109.78T | Close: 148.26T | High: 155.97T | Low: 108.11T

Despite higher Bitcoin prices in 2025, mining economics remained constrained by sustained hashrate growth, rising difficulty, and compressed hashprice, reinforcing cost discipline as the primary determinant of miner viability.

The sharp swings in network hashrate observed throughout 2025 flowed directly into mining difficulty. Bitcoin's mining difficulty adjusts approximately every 2,016 blocks (about every 14 days) based on observed hashrate. When computing power increases, difficulty rises to slow block discovery; when hashrate falls, difficulty adjusts downward. This process stabilizes Bitcoin's issuance schedule, transaction throughput, and miner reward cadence, making difficulty a critical indicator of network health and miner economics.

In 2025, the network recorded 26 difficulty adjustments: 17 increases and 9 decreases, reflecting the volatile hashrate environment. The year began with difficulty at 109.78 trillion (T) and climbed steadily through the first half of the year. On April 5, difficulty rose by 6.81%, followed by a 4.38% increase on May 30, pushing difficulty to a new all-time high of 126.98T at the time.

This peak was short-lived. Following extreme summer heat across North America, miners curtailed operations, driving a sharp hashrate decline of roughly 147 EH/s. On June 29, difficulty adjusted downward by -7.48%, the steepest single decline since the China mining ban in July 2021. Unfortunately for miners, the next adjustment on July 12th recorded its largest upward adjustment of the year at +7.96%, underscoring how rapidly conditions were shifting.



Difficulty Adjustments 2024 vs 2025 (Source: Digital Mining Solutions).

After the summer curtailments, difficulty continued trending higher for a prolonged period of time. Late in the year, the network experienced a rare pattern: on December 11, Bitcoin recorded its third consecutive downward difficulty adjustment, with a -0.74% decline—the first such streak since mid-2024. Even so, difficulty remained just 4% below its all-time high of 155.97T, reached three epochs earlier, reinforcing how resilient network security remained despite ongoing volatility. By the end of the year, the network had reached approximately 148.26T, representing an increase of 38.48T, or ~35% year-to-date. This marked a larger nominal rise than in 2023 or 2024, although the percentage increase was more moderate, reflecting Bitcoin's growing scale. Across 2025, the average month-over-month difficulty increase was 2.54%, signaling a more measured expansion despite record hashrate levels.

## 4.2 Record-Low Fees and a Quiet Fee Market in 2025

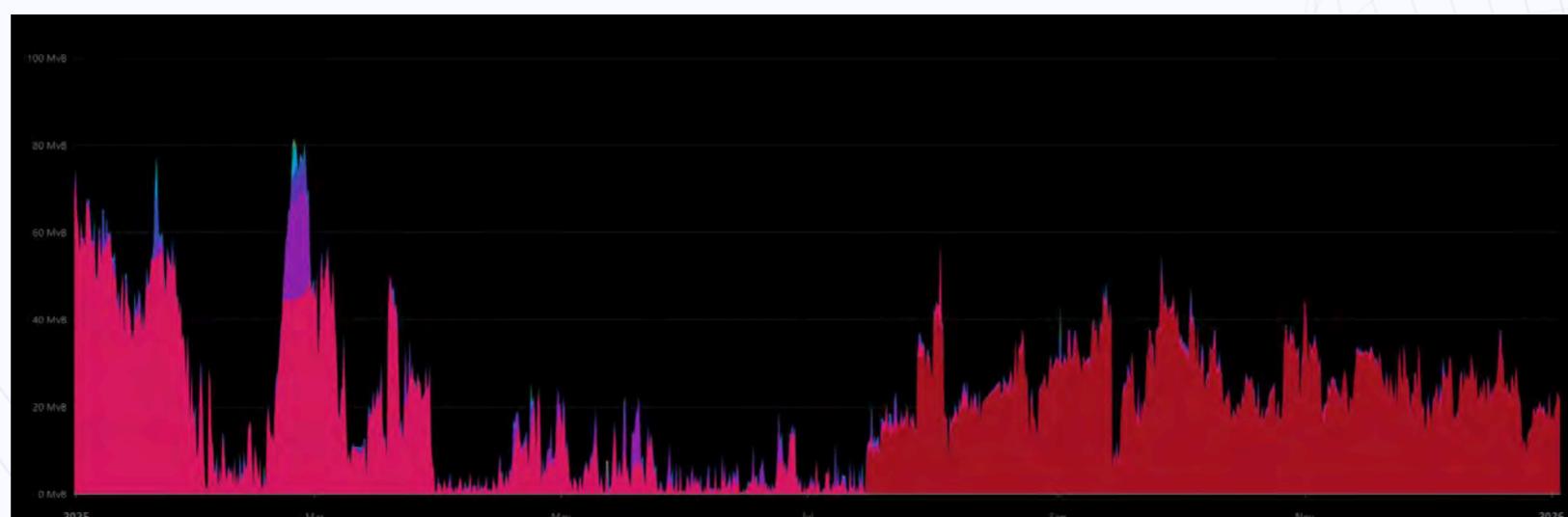
After the volatility in hashrate and difficulty, 2025 introduced another defining shift for Bitcoin mining economics: transaction fees collapsed to multi-year lows. To understand the significance, it helps to revisit how Bitcoin fees work.

Bitcoin operates without banks or intermediaries. Transactions are validated by miners, bundled into blocks, and added to the blockchain. In return, miners earn revenue from two sources: the block subsidy (newly issued BTC) and transaction fees paid by users. The subsidy is fixed and halves every four years, while fees are variable and determined by demand for limited block space. When demand is high, users compete by paying higher fees; when demand is low, fees compress.

In 2025, on-chain activity fell to levels not seen since October 2023. Daily transaction counts frequently dropped below 300,000, and the seven-day moving average reached lows around 256,000–313,000 transactions in the first half of the year. This decline in activity translated directly into weak demand for block space.

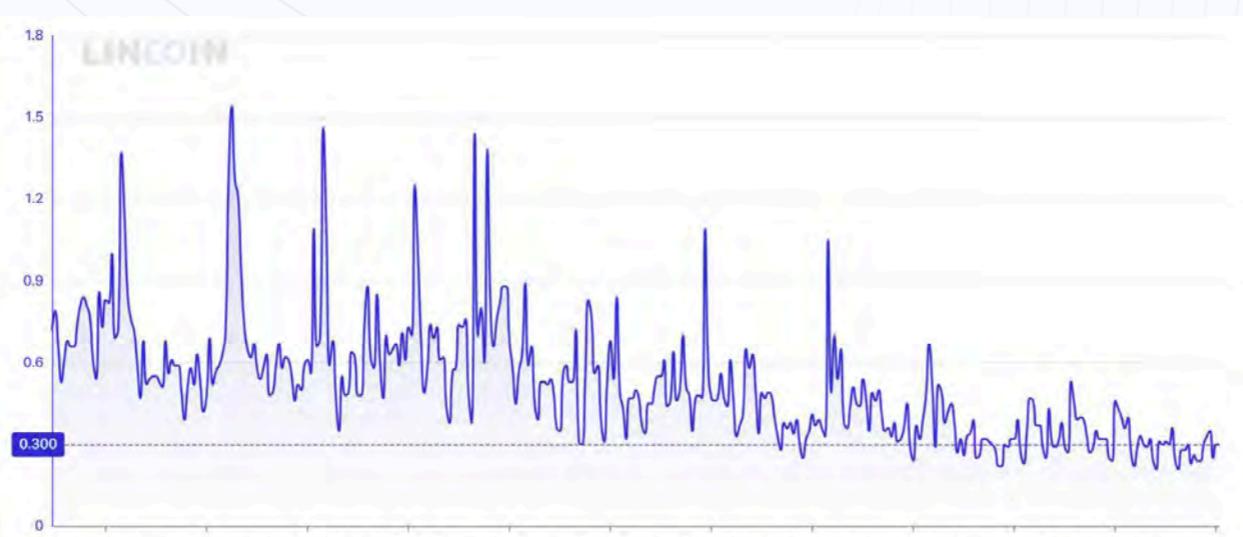
Three structural trends drove this slowdown. First, ETF adoption redirected institutional flows off-chain. Bitcoin is purchased, moved into custody, and then traded via ETF shares, generating little recurring on-chain activity. Second, retail speculation migrated elsewhere. Memecoins, NFTs, and inscription-style activity increasingly shifted to faster and cheaper chains like Solana, reducing congestion on Bitcoin. Third, Bitcoin-backed lending gained traction. Collateral is typically locked in custodial or smart-contract structures, with limited on-chain movement outside of loan initiation or liquidation.

The impact was visible in the mempool. For the first time since April 2023, the Bitcoin mempool fully cleared multiple times in 2025. With no backlog, transactions could be confirmed almost instantly at the minimum fee rate of 1 sat/vB, regardless of priority. Blocks were no longer consistently full; many settled in the 2–3 million weight-unit range, far below the 4 million limit that was routinely reached during the inscription boom of 2024.



Mempool was Cleared on Multiple Occasions in 2025 (Source: Mempool.space).

For miners, the consequences were severe. With the post-halving subsidy reduced to 3.125 BTC, fees offered little relief in 2025 compared to previous years. Throughout most of the year, transaction fees accounted for less than 1% of total block rewards.



Tx Fees / Block Rewards Trending Below 1% in 2025 (Source: Lincoln Lens).

## 4.3 Hashprice Tracks Price Heavily as Fee Support Disappears

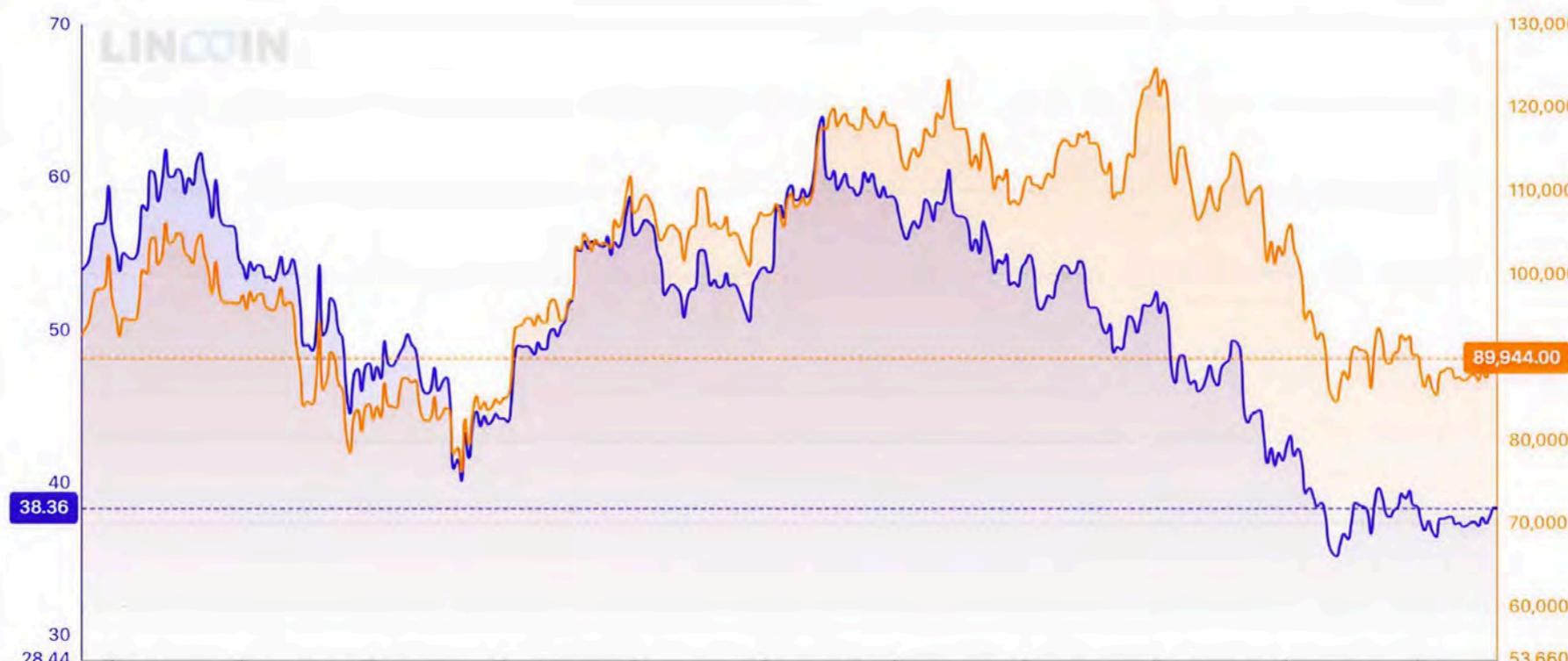
Hashprice, measured as dollar earnings per petahash per day, is the most direct indicator of Bitcoin mining profitability. It is driven by four variables: Bitcoin's price, network difficulty, the block subsidy, and transaction fees. In 2025, one of these inputs largely disappeared. Hashprice compression persisted through much of 2025, limiting margin expansion and placing pressure on higher-cost operators despite favorable headline price conditions. With transaction fees contributing less than 1% of total block rewards, hashprice became almost entirely a function of the subsidy and Bitcoin's spot price.

The year opened on relatively solid footing, with hashprice around \$56/PH/day. As Bitcoin rallied to new all-time highs, miner revenue followed. Hashprice reached \$62/PH/day on January 20 and later peaked at \$64/PH/day on October 7, both coinciding closely with BTC price highs.

The relationship worked in reverse as well. When Bitcoin weakened, hashprice fell sharply. By April 7, it dropped to \$40/PH/day, just \$2 above the post-halving floor set in 2024.

A temporary recovery followed. A combination of price strength and a -7.48% difficulty adjustment at the end of June pushed hashprice back toward the high-\$50s, and from early May through summer it generally held above \$50/PH/day. That stability faded in the second half of the year. As Bitcoin's price rolled over and difficulty resumed climbing, hashprice broke down decisively.

On November 21, hashprice hit a new all-time low of \$35/PH/day, representing a 45% decline from the yearly peak in October. Despite subsequent difficulty relief, earnings failed to recover meaningfully. Hashprice has remained below \$40/PH/day for the last six weeks of the year, closing at \$38/PH/day, only marginally above the record low.



Hashprice Tracking BTC Price Closely (Source: Lincoln Lens).

Network hashrate continues to rise while revenue per unit of compute falls. With fees offering no buffer, miners are operating in one of the most compressed revenue environments in Bitcoin's history.

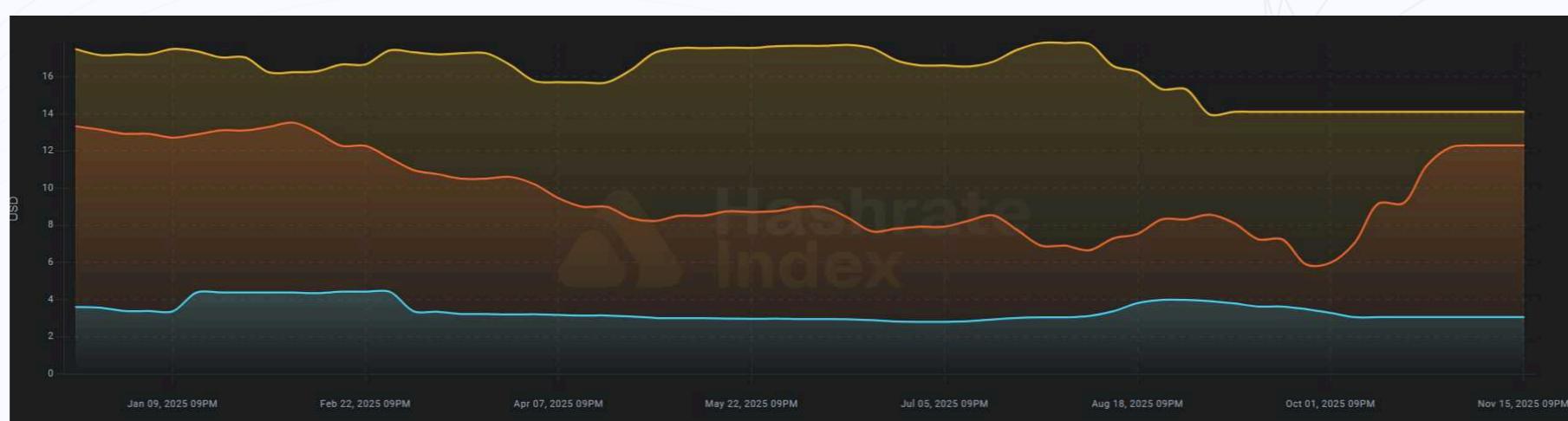
## 5. ASIC Mining Hardware

### 5.1 Premium on Efficiency Expands and Contracts

The ASIC Price Index from HashrateIndex tracks miner pricing in USD per terahash (\$/TH) across efficiency tiers, defined by joules per terahash (J/TH), with lower J/TH indicating higher efficiency.

The sub-19 J/TH tier represents the latest generation of hardware, including Bitmain's Antminer S21 series and MicroBT's M60 and M66 immersion and hydro models. The 19–25 J/TH segment covers newer but less efficient machines such as the Antminer S19K Pro and Canaan's AvalonMiner A1466 and A1366. The 25–38 J/TH tier reflects older mid-generation units, including the Antminer S19 and Whatsminer M30–M53 series.

ASIC prices declined across all tiers in the first half of 2025, but the magnitude varied sharply. The most efficient machines saw only modest price erosion, while the 19–25 J/TH tier declined more meaningfully. The steepest compression occurred in the 25–38 J/TH segment, where prices fell nearly 60%, from \$7.09/TH to \$2.81/TH, highlighting the growing discount applied to inefficient hardware.



ASIC Price Development in 2025 (Source: HashrateIndex).

This divergence widened the efficiency premium, which peaked in early August before narrowing later in the year as prices for top-tier machines stabilized and demand returned to the 19–25 J/TH class. In a margin-compressed environment, miners continue to prioritize efficiency, but shorter payback periods are making mid-tier hardware attractive again.

The most efficient tier closed the year with a 17.9% price decline while the strong recovery of the 19–25 J/TH machines led to a smaller decline (-4.9%) year-over-year.

### 5.2 Incremental Gains in the 2025 ASIC Cycle

Throughout 2025 a total of forty new industrial-grade ASIC models entered the market, excluding low-output home miners. Most were not clean-sheet designs, but refinements of existing platforms. Labels such as Pro, XP, +, or Hyd were not cosmetic, they signaled tangible gains driven by improved manufacturing yields, tighter chip binning, upgraded power delivery, and more advanced thermal design.

Bitmain continued to dominate releases through incremental expansion of the S21 platform. Following the original S21, Pro, and XP variants launched in 2024, 2025 saw the rollout of S21+ models in air and hydro configurations, alongside the S21e Hyd and S21 XP+ Hyd. Bitmain also began shipping its first 3U rack-mounted systems, most notably the S21e XP Hyd 3U, which delivered a record 860 TH/s and underscored the company's focus on rack density and data-center compatibility.



Bitmain Introduced a Variety of Cooling and Form Factors in 2025 (Source: Bitmain).

MicroBT used the Bitcoin MENA Conference to debut its WhatsMiner M70 series, marking a clear shift in design philosophy. The lineup spans multiple efficiency tiers down to 12.5 J/TH, and includes air-cooled, immersion, and hydro variants. Hashrate ranges from ~214 TH/s to more than 1 PH/s in the hydro-cooled M79S, one of the highest-density miners ever released. New airflow layouts, 3U rack designs, and sub-13 J/TH efficiency place MicroBT squarely in competition at the top end of the market.



The New Whatsminer M70 Series (Source: MicroBT).

Auradine continued carving out a differentiated position with its Teraflux™ platform. In March 2025, it introduced the hydro-cooled AH3880, delivering 100–600 TH/s at 14.3–17.5 J/TH in a 2U form factor. Beyond raw performance, Auradine emphasized operational resilience: demand-response software, fault-tolerant hashboards, wide power-load flexibility, and data-center-friendly features designed for hybrid Bitcoin and AI environments.



*The Hydro-Cooled Teraflux™ AH3880 (Source: Auradine).*

Bitdeer's transformation from manufacturer to operator accelerated with the SEALMINER lineup. After validating A2 units in its own facilities, Bitdeer shipped roughly 7 EH/s externally in Q2 before launching the A2 Pro and, later, the A3 series. With efficiencies reported as low as 12.5 J/TH, the A3 positioned Bitdeer as a serious competitor in high-efficiency hardware.



*The SEALMINER A3 Series (Source: Bitdeer).*

Finally, Proto challenged the industry's replacement model entirely. Its flagship Rig delivers 819 TH/s at 14.1 J/TH in an air-cooled chassis designed for component-level upgrades. Modular hashboards, field-serviceable power supplies, and decade-long chassis lifespans point toward a future where miners upgrade boards — not entire fleets—reducing capex cycles and e-waste while improving long-term economics.



*The Modular Approach by Proto (Source: Proto).*

Taken together, 2025's ASIC releases reflect an industry optimizing every layer—chips, power, cooling, software, and serviceability, rather than reinventing the wheel. In a post-halving environment, these incremental gains are what separate survivability from obsolescence.

### 5.3 The 2026 ASIC Roadmap

The pace of ASIC innovation shows no signs of slowing as the industry moves into 2026. Across just three manufacturers, nine new models have already been announced, underscoring how efficiency gains are now measured in single-digit joules rather than step-function redesigns.

Bitmain set the benchmark at WDMS 2025 with the Antminer S23 Hydro, delivering 580 TH/s at 9.5 J/TH, with shipments expected in Q1 2026. Alongside it, the compact 3U Antminer U3S23 Hyd breaks the 1 PH/s barrier at the same efficiency level, signaling a clear push toward higher rack-level power density. Canaan's Avalon A16 series marks a return to competitiveness, with the A16XP achieving 12.8 J/TH in an air-cooled format and closing much of the efficiency gap with industry leaders. Deliveries are expected in early 2026.



*Future Sale of the First +1PH/s ASIC Miner (Source: Bitmain).*

Auradine has outlined its next-generation Teraflux™ platform, targeting ~9.8 J/TH across air, immersion, and hydro variants, with volume shipments planned for the second half of 2026. Bitdeer's roadmap points even further ahead. Its fourth-generation SEALMINER platform targets sub-10 J/TH, with early SEAL04 chip verification already demonstrating 6–7 J/TH at the chip level and mass production scheduled for 2026.

ASIC development has entered a phase of relentless optimization. Future competitiveness will hinge not on radical redesigns, but on who can industrialize efficiency fastest, at scale, and under tightening economic constraints.

## 6. Six Key Trends for 2026

Going into 2026, miners operate in a more mature, capital-intensive environment where margins are thinner, competition is global, and success depends more and more on execution. The following trends outline how the mining landscape is evolving and what will matter most in the year ahead.

### 6.1 Hashprice Compression Becomes Structural

For much of Bitcoin mining's history, hashprice behaved as a cyclical variable. Periods of compression were followed by relief as inefficient miners exited, difficulty adjusted downward, and profitability recovered. That dynamic has weakened materially since the 2024 halving.

In 2026, hashprice compression should be understood as structural. Difficulty growth is no longer meaningfully reversible at the network level, as institutional-scale miners with access to capital and power continue operating through downturns. Instead of miner capitulation and switching off their operations, machines keep on running while being refinanced or acquired, operators fine-tune efficiency using customized firmware or replace their fleet by newer generations hardware.

As a result, hashprice volatility is increasingly driven by Bitcoin price dynamics, not difficulty relief. When BTC rallies, hashprice improves temporarily; when price stagnates or corrects, margins compress quickly. This places a premium on cost control, uptime, and operational efficiency rather than speculative positioning around cycle timing.

The implication is clear: miners can no longer rely on "waiting out" low hashprice environments. Those without structurally competitive operations face persistent margin pressure, while well-run operators can survive and compound consistent returns.



*Hashprice was Compressed over the Past +18 Months (Source: Lincoln Lens).*

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ASIC development has entered a phase of relentless optimization. Future competitiveness will hinge not on radical redesigns, but on who can industrialize efficiency fastest, at scale, and under tightening economic constraints.

## 6.2 The End of “One-Size-Fits-All” Mining

As margins compress, the mining industry is fragmenting into distinct archetypes, each optimized for a different constraint set. By 2026, it is increasingly evident that there is no single optimal mining strategy.

Hyperscale public miners pursue scale, capital market access, and balance sheet optionality, often prioritizing fleet upgrades and long-term power contracts that are increasingly compatible with AI/HPC data centre operations.

Regional, power-first operators focus on local energy advantages, grid integration, and operational flexibility, including the ability to monetise curtailed renewables, capture stranded power where transmission or distribution is lacking, and deploy at energy sources that would otherwise go unused, such as flared gas. In parallel, a growing subset of operators is beginning to extract additional value through heat reuse, turning what was previously wasted energy into inputs for industrial processes, district heating, or on-site applications. What unites these models is not a shared playbook but a shared reality: strategy must align with balance sheet, power structure, and risk tolerance. The days when simply adding hashrate guaranteed competitive parity are over. In 2026, miners that attempt to imitate strategies mismatched to their capital base or operating environment are likely to underperform. Differentiation, not standardization, is becoming the dominant theme.

## 6.3 Power Is Strategic and Financial

Access to low-cost electricity remains necessary, but it is no longer sufficient. Competitive advantage in 2026 increasingly comes from how power is structured, not just how cheap it is on paper.

Miners are differentiating through demand response participation, grid services, behind-the-meter generation, curtailment optionality, and contract flexibility. Power agreements are increasingly evaluated for their optionality profile: the ability to ramp up or down, monetize volatility, or shift loads dynamically.

This evolution reframes power from a static operating expense into a strategic and financial variable. Miners with flexible load profiles can capture value during peak demand events, reduce effective power costs, and improve resilience during grid stress.

AI and HPC workloads further accelerate this shift. Rather than replacing Bitcoin mining, these workloads are reshaping how infrastructure is financed and justified. In 2026, miners increasingly position themselves as flexible compute infrastructure providers, using Bitcoin mining as a monetization layer while retaining optionality for future high-performance workloads.

In this model, Bitcoin mining becomes the baseline use case that absorbs excess capacity and de-risks infrastructure investment, while AI or HPC provides upside optionality. Power strategy, infrastructure design, and capital allocation are now tightly intertwined.

## 6.4 ASIC Economics Shift from “Best Efficiency” to “Best Fit”

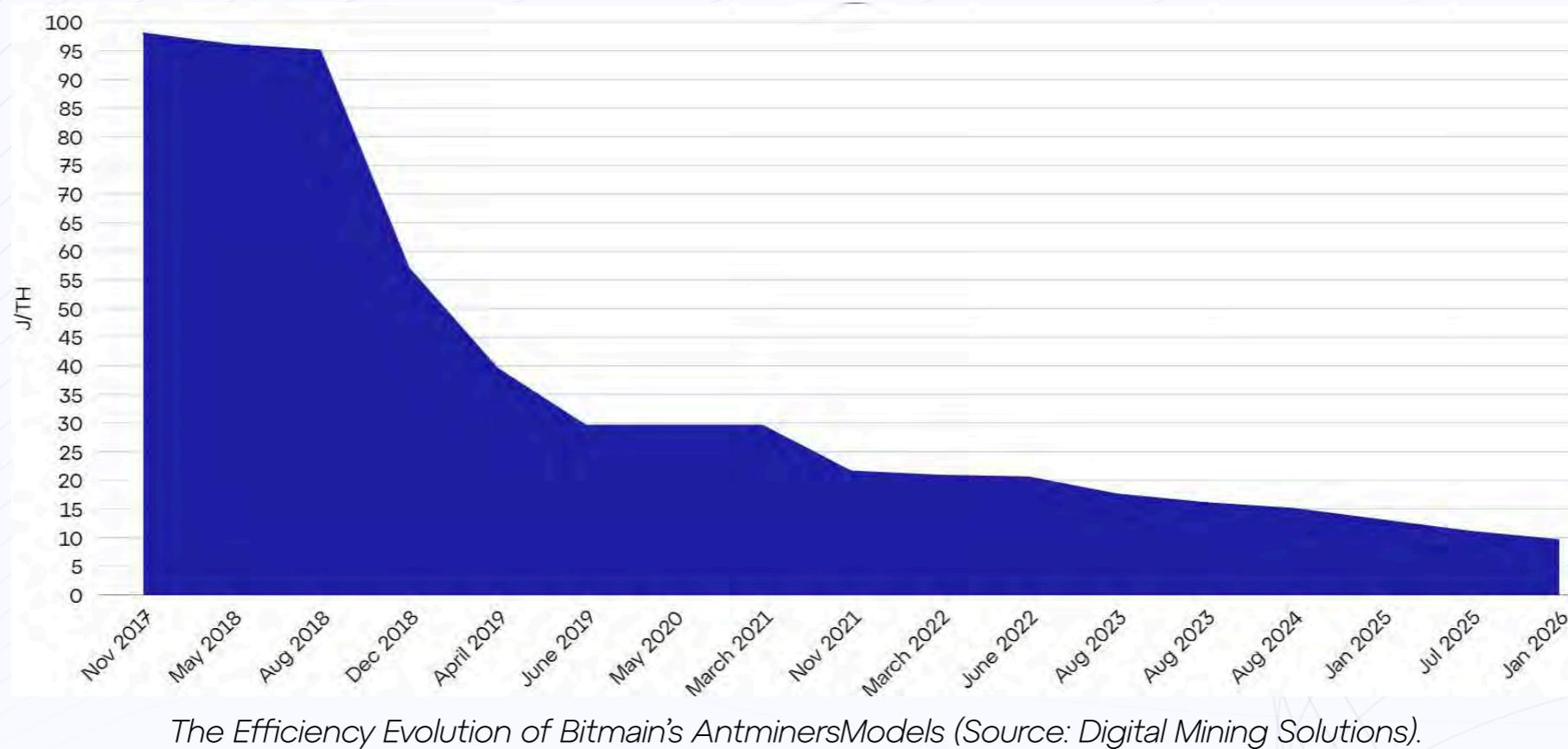
For years, ASIC purchasing decisions were dominated by a single metric: joules per terahash. While efficiency remains important, it is no longer the sole — or even primary — determinant of value.

As ASIC hardware efficiency improvements are slowing down, miners increasingly evaluate hardware based on capex intensity, cooling system, deployment speed, reliability, power-mode optionality and resale value. A slightly less efficient machine with lower upfront cost, faster delivery, or broader operating range can outperform a top-tier efficiency model in real-world conditions.

Hardware decisions increasingly resemble portfolio construction. Miners diversify across brands, machine generations, cooling types, and performance profiles to balance risk, liquidity, and operational flexibility. Firmware control and dynamic power modes allow operators to respond to fluctuating power prices and grid

conditions rather than operating at fixed performance levels.

The shift reflects a broader industry maturation. ASICs are no longer speculative assets aimed at peak-cycle returns, but long-duration infrastructure assets optimized for survivability and adaptability.



## 6.5 Capital Discipline Replaces Hashrate Maximalism

For many years, miner strategy was largely driven by hashrate maximalism. Growth was rewarded, leverage was abundant, and balance sheet risk was often secondary. That era has largely ended.

By 2026, capital discipline is the defining feature of competitive miners. Return on invested capital, cash-flow predictability, and balance sheet resilience have replaced raw hashrate growth as key performance metrics, particularly for public and institutionally backed operators.

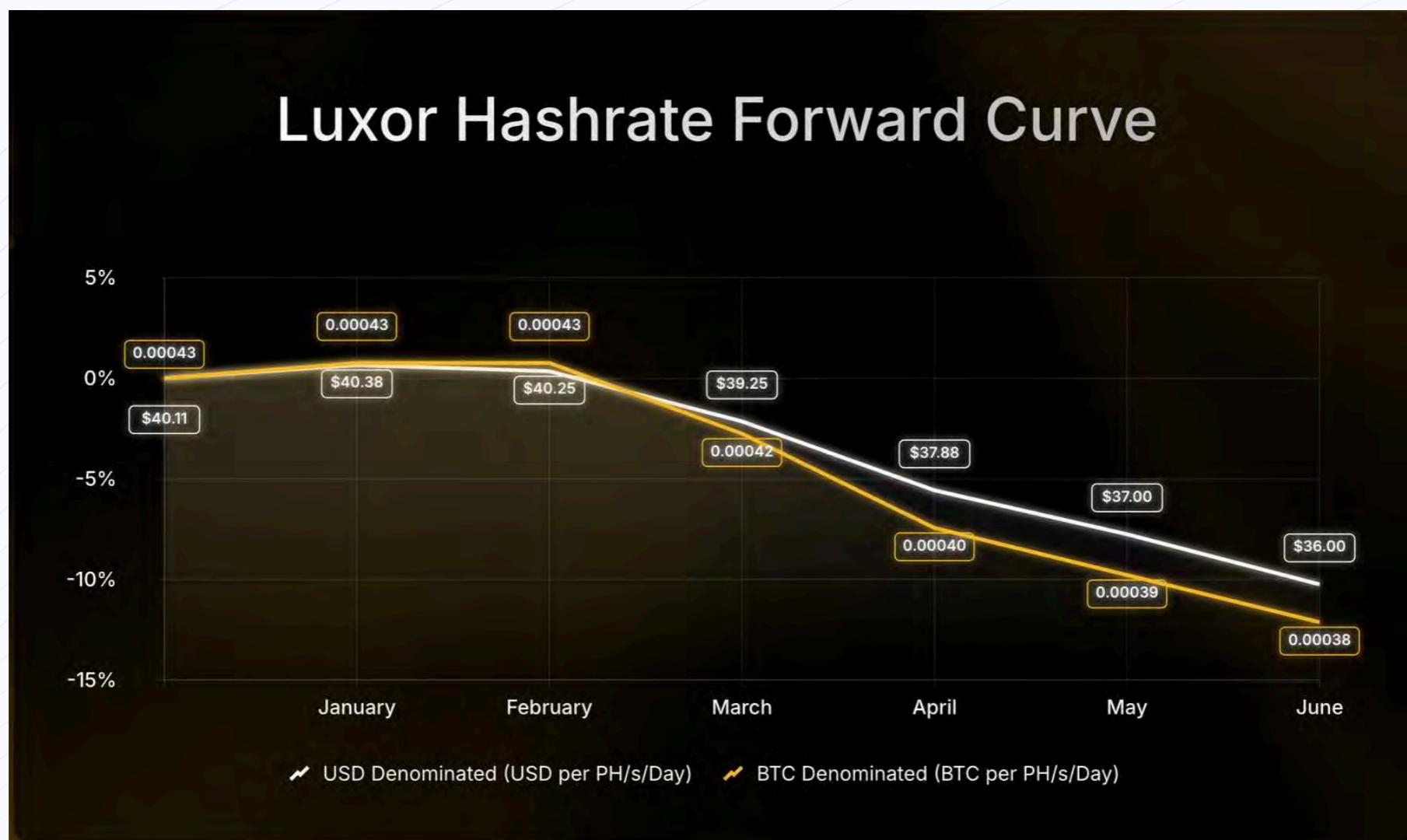
Expansion decisions are now filtered through stricter underwriting standards. New capacity must clear higher internal hurdle rates, and marginal deployments are increasingly scrutinized. This does not mean growth disappears, but growth becomes selective and capital-efficient. The contrast with prior cycles is stark. Where miners once raced to deploy at any cost, they now optimize for durability and benchmark against revenue coming from other types of compute like AI/HPC.

## 6.6 Financialization of Mining Continues

While public attention focuses on ETFs and corporate Bitcoin treasuries, mining itself is undergoing a quieter form of financialization. In 2026, tools such as hashrate forwards, tokenized hashrate, BTC-collateralized financing, and hybrid treasury strategies become more common.

The defining feature of this trend is risk management, not leverage. Miners increasingly use financial instruments to smooth cash flows, hedge downside exposure, and align revenue with operating obligations. Structured contracts replace ad-hoc arrangements, and counterparty risk becomes a more prominent consideration.

Importantly, this financialization does not fundamentally change the economics of mining but it changes the volatility profile. Operators that can stabilize cash flows gain access to better financing terms and can operate through extended periods of hashprice compression. In this sense, financial sophistication becomes a competitive advantage, even for operators that remain conservative in their use of leverage.



Luxor Hashrate Forward Curve January 2026 – June 2026 (Source: Luxor Technologies).

## Final Thoughts

As 2025 closed, the most important takeaway is not a single price level or quarterly narrative, it's that Bitcoin's structure is changing faster than most frameworks can keep up with. The market is increasingly shaped by institutional access, regulated vehicles, corporate and sovereign balance sheets, and a macro backdrop that can overwhelm the old cycle playbook. At the same time, the network itself has entered a new industrial phase: hashrate growth remains historically aggressive, but it is now driven by scale, infrastructure competition, and vertical integration as much as by miner profitability.

For miners and investors, this creates a more demanding environment. Transaction fees failed to provide meaningful relief in 2025, leaving the subsidy and spot price as the dominant revenue drivers. That reality exposes operational weaknesses quickly: power strategy, uptime, financing terms, and fleet efficiency now matter more than ever. It also accelerates consolidation. Public miners with capital-market access, large private operators with long time horizons, and ASIC manufacturers deploying machines at production cost are increasingly setting the marginal economics of the industry.

Looking into 2026, the key questions are structural: How quickly does global infrastructure expand when AI/HPC competes for the same megawatts? How does hashrate relocate across jurisdictions as policy and grid constraints tighten? And can the fee market reassert itself in a way that strengthens miner incentives over the long arc of Bitcoin's issuance schedule?

Bitcoin has always been adaptive. The 2025 cycle showed that the asset, the network, and the industry around it are professionalizing in real time. The next phase will reward those who understand the new drivers, because the old cycle principles are no longer enough.

Entering 2026, Bitcoin mining increasingly resembles a capital-intensive infrastructure business operating under institutional constraints rather than a purely cyclical, price-driven industry. The outlook for the year ahead is defined less by dramatic inflection points and more by structural refinement: hashprice compression, tighter capital discipline, strategic power use, and greater operational differentiation now characterize a maturing sector. As Bitcoin enters its next phase, mining is no longer a side-effect of price appreciation, but an infrastructure business shaped by long-term capital allocation and execution quality.

## About the Authors and GoMining Institutional

### GoMining Institutional

GoMining Institutional delivers structured Bitcoin mining and yield solutions for eligible investors, including institutions, family offices, and HNWIs.

As the institutional arm of GoMining, we provide access to professionally managed mining infrastructure and strategic exposure to Bitcoin's economic backbone.

Our platform combines global operational scale with institutional standards in governance, compliance, and risk management.

In addition to investment offerings, we deliver market intelligence and strategic insights to help allocators navigate the evolving Bitcoin mining ecosystem.

- Professionally managed digital mining infrastructure
- Structured exposure to Bitcoin mining with recurring BTC yield
- Institutional-grade custody, compliance & fund administration
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Learn more: <https://institutional.gomining.com/>

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Nico Smid, founder of Digital Mining Solutions, brings over 15 years of international business experience to the Bitcoin mining industry. Since entering the digital asset space in 2017, he has evolved from a private investor to an active miner and strategic advisor, building expertise across the full mining value chain.

Recognized as a trusted advisor and skilled industry connector, Nico has helped numerous companies launch, scale, and optimize Bitcoin mining operations across diverse geographies. Through Digital Mining Solutions, he has delivered a comprehensive suite of services—including market intelligence, strategic advisory, investor readiness, and deal facilitation—empowering clients to make informed decisions, attract institutional capital, and stay competitive.

Nico brings this experience to his role as Research Analyst at GoMining Institutional, where he focuses on delivering high-quality insights, industry analysis, and data-driven research for investors and stakeholders seeking exposure to the Bitcoin mining sector.

### Fakhul Miah — Managing Director, GoMining Institutional

Fakhul leads the institutional business at GoMining, where he is responsible for delivering structured Bitcoin mining products tailored to institutional investors, family offices, and high-net-worth individuals. He brings over 20 years of experience across traditional finance and blockchain innovation, with a focus on risk, infrastructure, and compliant product development.

Previously, Fakhul served as Global Head of Margin Financing and Risk Operations at Morgan Stanley, where he led a global 50-person team overseeing risk exposure, margin lending, and collateral operations for Prime Brokerage and Wealth Management clients. He managed cross-border teams across the U.S., Europe, and Asia, and played a key role in delivering large-scale regulatory, risk, and product initiatives, including the rollout of CME Bitcoin Futures in 2017.

He has since held executive roles at Web3 pioneers including CreDA and Elastos, building solutions at the intersection of decentralized identity, DeFi, and DAO governance. At GoMining, his focus is on bridging institutional capital with Bitcoin mining infrastructure through professionally managed, regulatory-aligned offerings.

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