DIGITAL GOLD INSTITUTE

Digital Gold Institute Quarterly report

Q3 2026



Executive Summary

The third quarter of 2026 marked a return to growth for the crypto market after three consecutive quarters of contraction. Bitcoin returned 43%, closing at $83,576, while Ether gained 71%. Total market capitalization rose 40% to $2.96 trillion. The recovery reduced the losses accumulated in prior quarters, but Bitcoin was still down 26.7% year over year and 4.6% year to date, trading roughly one third below its October 2025 all-time high.

Flows and derivatives data help qualify this recovery. U.S.-listed Bitcoin and Ether ETFs drew $9.3 billion in net inflows, reversing the record outflows of the second quarter. The price rally was accompanied by a 7.6% decline in total trading volume and a further contraction in futures volume. Funding rates on perpetual contracts also remained below the benchmark level throughout the period. Taken together, this evidence points to a significant contribution from spot demand, supported by flows into regulated vehicles, alongside more contained pressure from leveraged long positions.

Alongside the recovery in returns, Bitcoin's risk profile continued to evolve. Volatility over a two-year window stabilized at around 42%, the lowest among major crypto assets, comparable to Nvidia and below oil. Low correlations with traditional assets continue to support its diversification potential within a traditional portfolio, while correlations of 75% to 80% with other major crypto assets point to a more limited benefit within the crypto market. Risk-adjusted return metrics turned positive but remain below those of the S&P 500 and gold.

Integration with traditional finance, visible in ETF flows, also extended to market infrastructure. Deutsche Bank announced a crypto custody service for European institutional clients, while Nasdaq agreed to a $100 million investment in Payward, the parent company of Kraken, to develop tokenized equities. On the settlement side, the Eurosystem launched Pontes, which enables wholesale transactions in tokenized assets to settle in central bank money. These developments come as the market capitalization of tokenized traditional assets reached $41.6 billion, up 13% in the quarter.

The evolution of services and infrastructure has gone hand in hand with the implementation of the regulatory framework. In Europe, the ESMA register lists 360 service providers authorized under MiCAR, with authorizations granted by 27 countries. Italy has nine domestic authorizations and 192 foreign firms that have notified their intention to operate in the country under the EU passport. Beyond the authorization regime, the first MiCAR sanction published in Austria highlights the growing importance of supervision over how products are offered and marketed. The debate on calibrating the rules also continues, with the European System of Central Banks' proposal on stablecoin reserve requirements and, in Italy, the parliamentary intergroup on digital assets' proposal to bring the tax rate on crypto capital gains back to 26%. In the United States, by contrast, the CLARITY Act stalled in the Senate.

Against this backdrop of integration, security incidents drew attention to the operational resilience of the entire service chain. The attacks on Bitget and on Blockstream's Liquid network resulted in unauthorized transfers of approximately $388 million and $320 million, respectively, without any compromise of private keys. The vulnerabilities affected authorization processes, third-party software and validation logic, underscoring the importance of the controls through which transactions are prepared and executed. The flaw in the firmware of Coldcard devices extended this lesson to offline custody, whose security also depends on correct key generation.

Overall, the quarter points to a recovery driven by demand through regulated vehicles, with funding indicators less stretched than in previous speculative phases, as integration with traditional finance continues. However, the distance from the highs and the year-to-date underperformance relative to equities and gold call for distinguishing the cyclical rebound from the medium-term trend. For intermediaries, market assessment must therefore cover both the risk profile of the assets and the soundness of counterparties and the adequacy of the controls of custody and trading providers.

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Markets

CHAPTER 1

Returns and Market Capitalization

Total crypto market capitalization grew 40% in the third quarter of 2026 to $2.96 trillion, moving back toward the $3 trillion mark. Bitcoin, at $1.68 trillion, accounts for about 57% of the total; Ether stands at $328 billion. The two assets therefore account for roughly two thirds of the sector's capitalization. The recovery was broad-based across major crypto assets, with significant dispersion in returns.

Bitcoin closed the quarter at $83,576, up 43%. Ether returned 71% to reach $2,685, while Solana rose 60% to $118. XRP and BNB gained 43% and 41%, respectively, closing at $1.49 and $769; Tron rose 7%. Among the top ten crypto assets, Zcash posted the highest return, at 260%. This performance should be read in light of the June correction that followed the discovery of a vulnerability in the protocol.

The composition of the largest assets by market capitalization reflects the broadening range of assets represented in the market. Figure Heloc, a token linked to home equity loans, ranks tenth at $24 billion, marking the established entry of a tokenized traditional asset into the top ten crypto assets. The same ranking includes Tether and

USDC, with a combined market capitalization of $258 billion.

The recovery in valuations was accompanied by lower trading activity. Total volume fell 7.6% to $6,745 billion in the quarter, despite a pickup in the final weeks of September. This pattern is consistent with a greater share of spot buying relative to speculative turnover and with demand oriented toward longer investment horizons.

TABLE 1

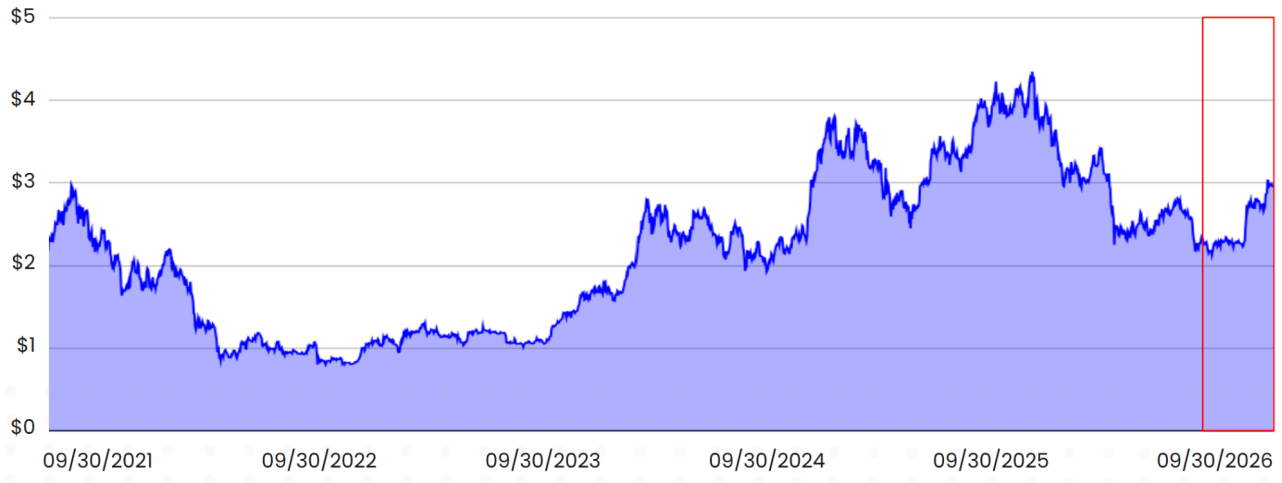
TOP CRYPTO ASSETS BY MARKET CAPITALIZATION

Asset	Price	Market cap	Share of market cap	QoQ price change
Bitcoin (BTC)	$83,576.13	$1.68tn	56.67%	42.70%
Ethereum (ETH)	$2,684.71	$327.78bn	11.06%	71.02%
Tether (USDT)	$0.9995	$183.79bn	6.20%	0.08%
BNB (BNB)	$768.80	$102.37bn	3.46%	40.84%
XRP (XRP)	$1.49	$93.98bn	3.17%	43.49%
USDC (USDC)	$0.9998	$73.99bn	2.50%	0.04%
Solana (SOL)	$118.04	$69.41bn	2.34%	60.46%
TRON (TRX)	$0.3374	$32.05bn	1.08%	7.10%
Zcash (ZEC)	$1,438.21	$24.39bn	0.82%	260.17%
Figure Heloc (FIGR_HELOC)	$1.03	$23.99bn	0.81%	1.22%

SOURCE: DIGITAL GOLD INSTITUTE, COINGECKO

CHART 1

TOTAL CRYPTO MARKET CAPITALIZATION ($ TRILLIONS)



SOURCE: DIGITAL GOLD INSTITUTE, COINGECKO

Bitcoin Performance

Bitcoin's 43% gain in the third quarter was its best quarterly performance since the fourth quarter of 2024 and ended the losing streak that followed the October 2025 highs. In the three

preceding quarters, Bitcoin had fallen 23%, 24% and 14%, respectively. The recovery has not, however, fully offset accumulated losses: the return remains negative at 26.7% year over year and 4.6% year to date.

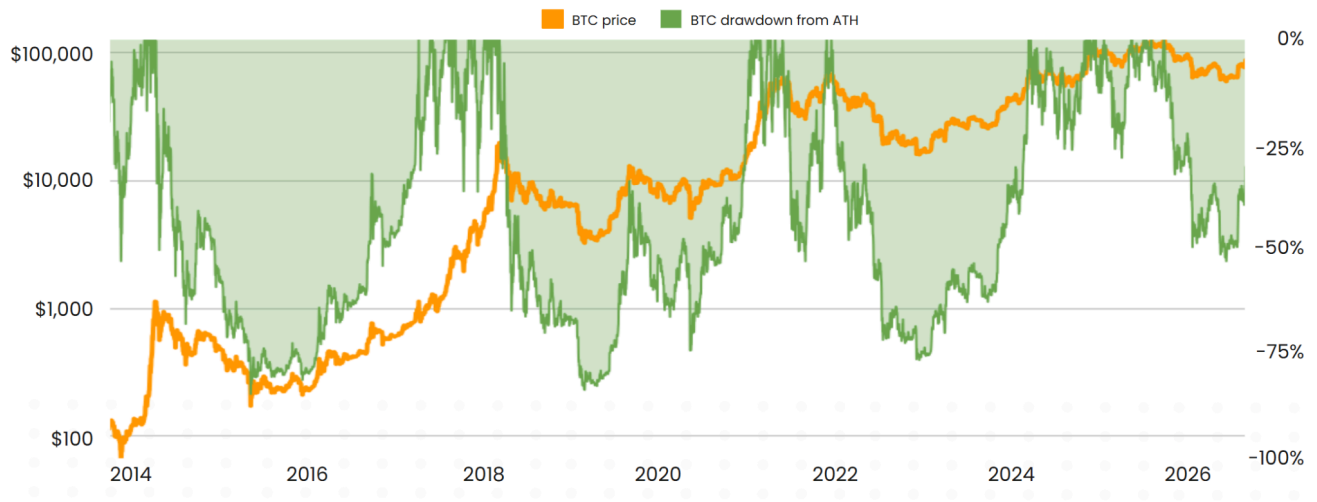
The recovery narrowed the drawdown from the all-time high from 53% in June to about 33% at the end of September. The June low of $58,205 compares with a peak of $124,774; a further 49% gain would be needed to recover that level. The maximum decline in this phase nonetheless remains smaller than in the major previous corrections: 93% in 2011, 83% in both 2013/14 and 2017/18, and 77% in 2021/22.

For euro-based investors, the weakening of the single currency against the dollar cushioned losses. Bitcoin's return in euros stands at −24.3% year over year and −1.3% year to date, compared with −26.7% and −4.6% in dollars. The exchange rate therefore contributed approximately 2.4 percentage points year over year and 3.3 points year to date, highlighting the weight of the currency component in the returns of a euro-denominated portfolio.

Sentiment improved alongside the price recovery. The Fear & Greed Index, which measures investor sentiment toward Bitcoin on a scale of 0 to 100, moved from extreme fear in early July to a reading close to 75 at the end of September, in the greed range.

CHART 2

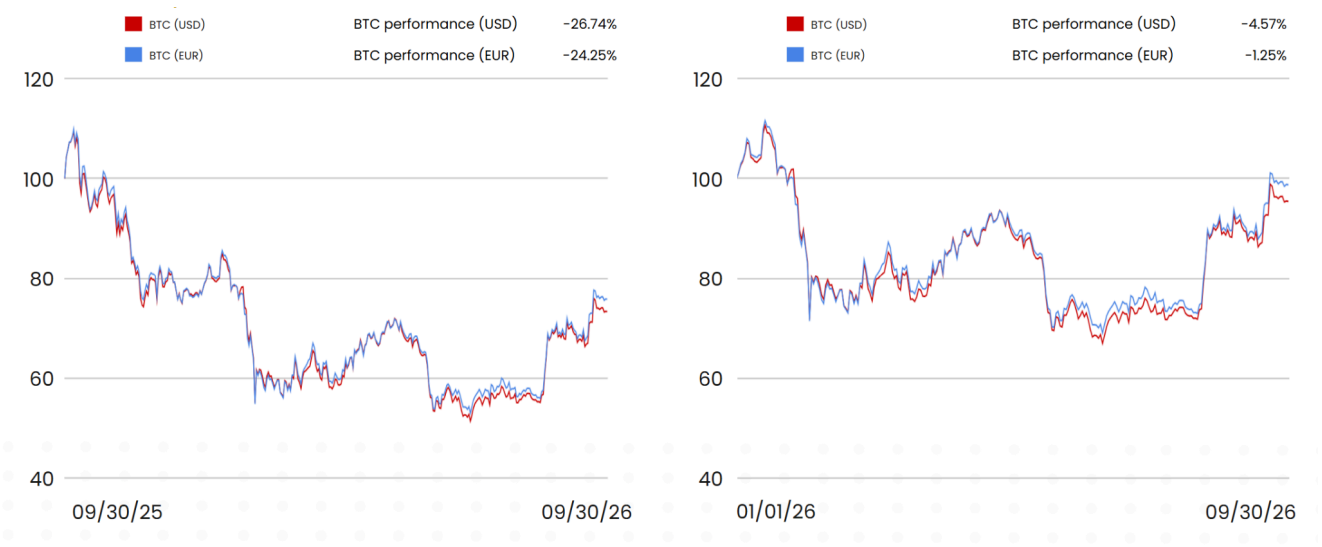
BITCOIN DRAWDOWN



SOURCE: DIGITAL GOLD INSTITUTE, COINGECKO

CHART 3

BITCOIN RETURNS IN DOLLARS AND EUROS



SOURCE: DIGITAL GOLD INSTITUTE, COINGECKO

Volatility and Correlations

Bitcoin's volatility, measured over a two-year rolling window, stabilized at around 42%, compared with about 80% in 2021. It remains the lowest among major crypto assets, versus 68% for Ether, 73% for Solana, 88% for XRP and 93% for Dogecoin. The price recovery did not interrupt the downward trend in volatility observed over the past five years.

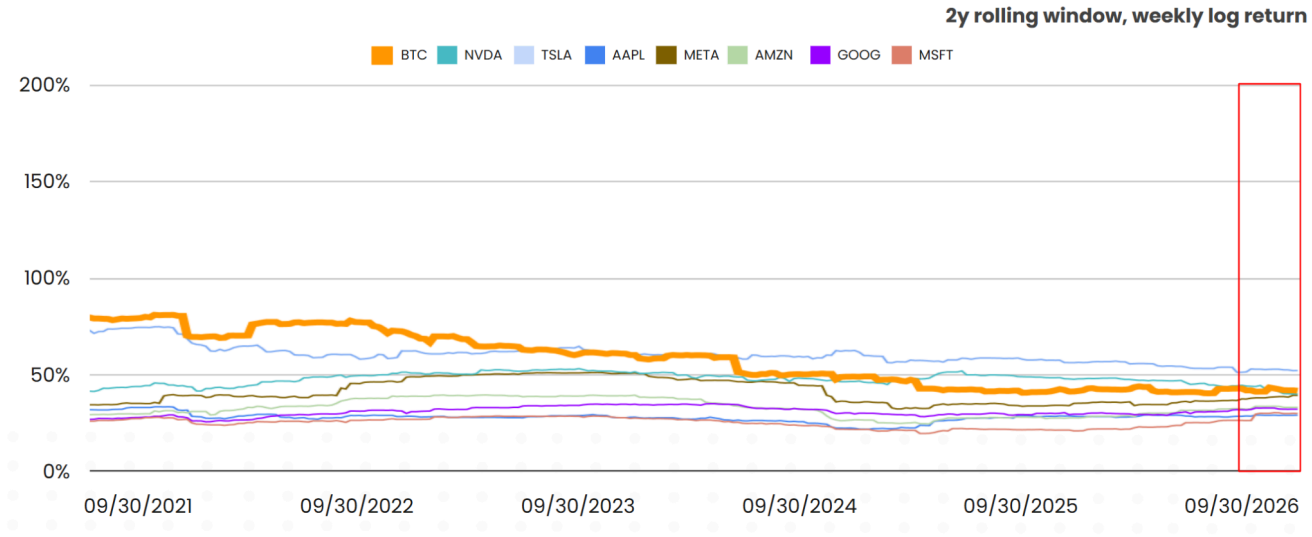
Compared with traditional assets, Bitcoin's volatility is in line with Nvidia's and below Tesla's, which stands at around 52%. During the quarter it also fell below that of oil, whose volatility rose to about 47%. The gap with gold, the Nasdaq and the S&P 500 remains significant, with volatilities between 15% and 21%.

Correlations within the crypto sector remain high. Bitcoin's correlation coefficients with Ether, XRP, Solana and Dogecoin range between 75% and 80%, having edged up over the past year. These levels limit the diversification benefit of combining major crypto assets; in periods of stress, the diversification margin tends to narrow further.

Correlations with traditional assets are lower. For the S&P 500, the Nasdaq and VWCE, a proxy for the global equity market, coefficients range between 20% and 27%. The correlation with gold is close to zero, while the correlation with 10-year U.S. Treasuries is slightly negative. For the Magnificent 7, values also remain between zero and 30%, with Microsoft and Tesla at the upper end of the range. Over the period observed, Bitcoin's potential contribution to diversification is therefore more relevant in a portfolio of traditional assets than in one made up exclusively of crypto assets.

CHART 4

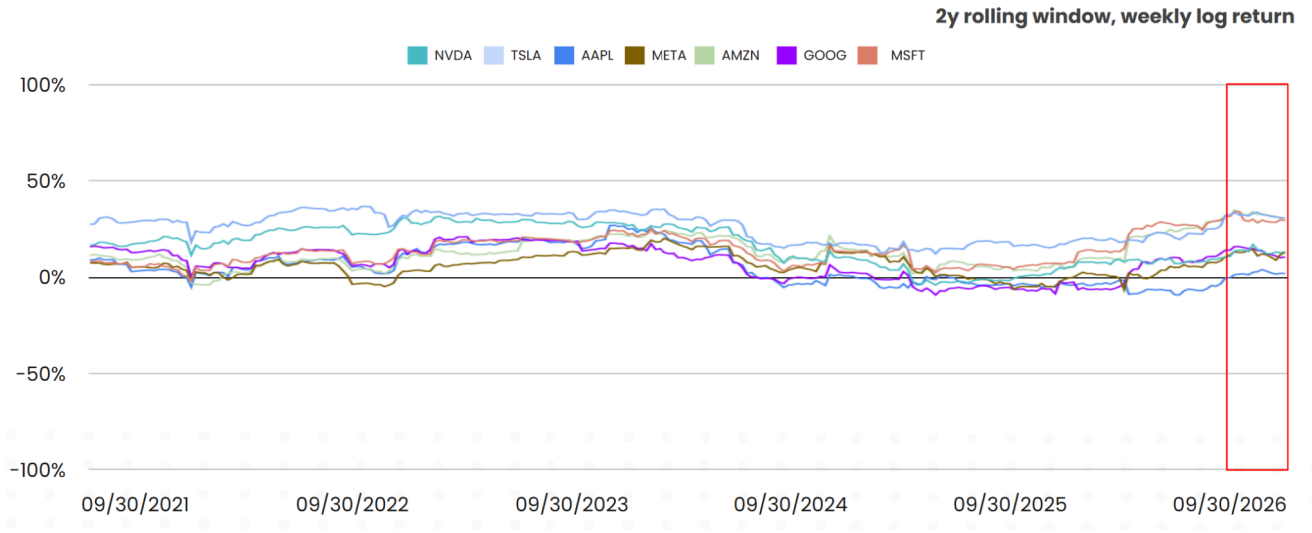
VOLATILITY OF BITCOIN AND THE MAGNIFICENT 7



SOURCE: DIGITAL GOLD INSTITUTE, COINGECKO, YAHOO FINANCE

CHART 5

CORRELATION OF BITCOIN WITH THE MAGNIFICENT 7



SOURCE: DIGITAL GOLD INSTITUTE, COINGECKO, YAHOO FINANCE

Risk-Adjusted Returns and Comparison with Gold

The price recovery brought Bitcoin's risk-adjusted return metrics back into positive territory after they fell below zero in the second quarter. Over a two-year window, the Sharpe ratio stands at about 0.25, the Sortino ratio at 0.7 and the Calmar ratio at 0.35. The improvement nevertheless leaves a significant gap relative to the S&P 500 and gold, whose Sharpe ratios are approximately 0.8 and 0.9, respectively.

The comparison also reflects the different dynamics of the three assets within the window of analysis. Bitcoin's metrics include the entire correction following the October 2025 highs, while gold's are declining from the exceptional

levels of early 2026, when its Calmar ratio exceeded 8. Year to date, the S&P 500 is the only one of the three assets with a positive return, of about 12%; gold and Bitcoin remain slightly negative.

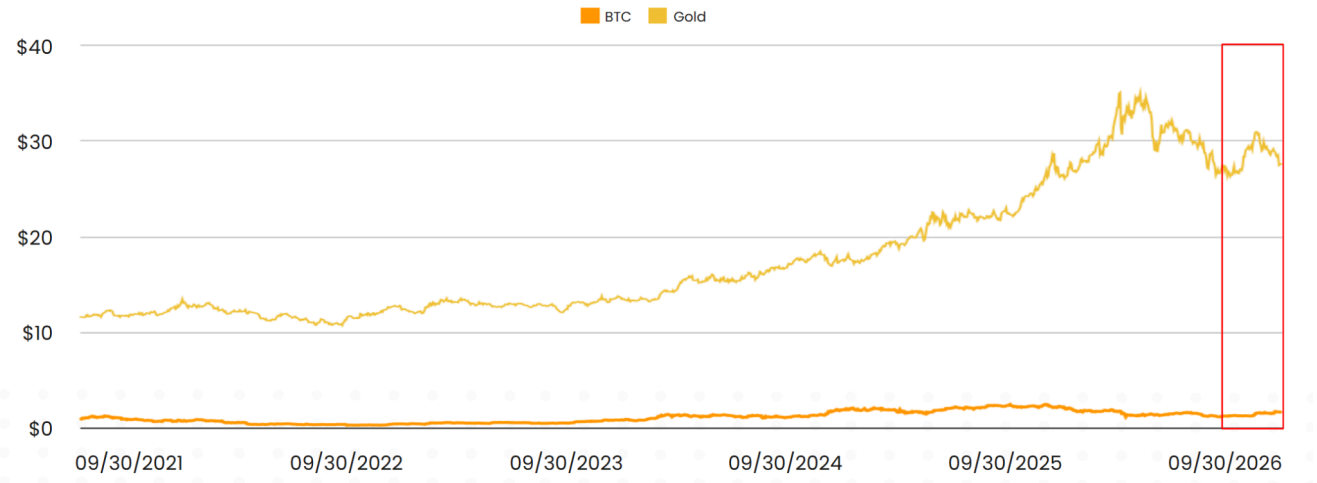
Bitcoin's underperformance is also evident relative to the leading U.S. technology stocks. The 43% gain in the third quarter only partially offset earlier losses, leaving the year-to-date return at −4.6%. In 2026 to date, Bitcoin has outperformed only Tesla, while Apple, Nvidia, Amazon, Meta, Alphabet and Microsoft have all posted positive returns. The quarterly rebound therefore comes against a backdrop of persistent underperformance relative to most of the stocks considered.

Bitcoin's rally and gold's pullback from its highs also narrowed the ratio between their respective market capitalizations. At the end of September, gold's market capitalization was about 16 times that of Bitcoin, compared with 25 times at the end of June. The ratio provides a quantitative benchmark for assessing the thesis of Bitcoin as a store of value. The still wide gap helps frame scenarios of greater adoption in this role, without in itself constituting a forecast of appreciation.

The relationship with monetary policy appears less clear-cut than in 2022, when Federal Reserve tightening contributed to Bitcoin's correction. Since 2023, the price has recovered and surpassed previous highs despite interest rates remaining elevated. Liquidity conditions therefore remain relevant to market performance, but do not on their own explain price dynamics.

CHART 6

MARKET CAPITALIZATION OF BITCOIN AND GOLD ($ TRILLIONS)



SOURCE: DIGITAL GOLD INSTITUTE, COINGECKO, YAHOO FINANCE

Stablecoins and DeFi

Stablecoin market capitalization was essentially flat, edging up 0.6% to $301.5 billion. After expanding in 2024 and 2025, the segment has hovered around $300 billion for about a year and accounts for roughly 10% of the crypto market. Supply remains highly concentrated, with Tether at 61% and USDC at 25%, for a combined share of more than 85%.

None of the top ten stablecoins is denominated in euros. The dominance of the dollar in this segment helps explain European banks' interest in initiatives such as Qivalis and the importance

of the debate on reserve requirements, discussed in the regulation chapter.

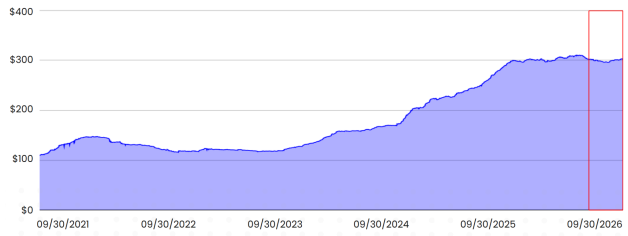
Stablecoin trading volume fell 36.8% to $5,836 billion after peaking at the end of June. The decline occurred while supply outstanding was virtually unchanged and is consistent with a normalization of trading activity. The volume data should therefore be read separately from the trend in the amount of stablecoins issued.

DeFi posted the strongest growth of the quarter. The market capitalization of DeFi tokens rose 62% to $78.4 billion, the highest level in five years and above the 2021 and 2025 peaks. Hyperliquid leads the segment with $20.2 billion, about one quarter of the total, followed by Chainlink, whose market capitalization doubled to $10.7 billion. DeFi token volume grew 40%, while decentralized exchange volume rose 20% to $765 billion.

The value of assets deposited in DeFi protocols, measured by Total Value Locked, rose 39% to $94.8 billion. The significant share of deposits denominated in Ether, whose price rose 71%, suggests that a substantial portion of the increase reflects the revaluation of deposited assets rather than a comparable increase in net deposits. Staking and lending remain predominant. Lido, with $26.4 billion, and Aave, with $18.1 billion, together account for 47% of total value locked.

CHART 7

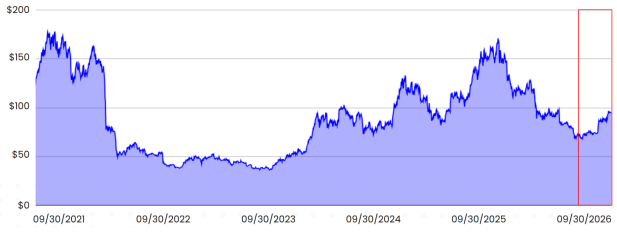
STABLECOIN MARKET CAPITALIZATION ($ BILLIONS)



SOURCE: DIGITAL GOLD INSTITUTE, COINGECKO

CHART 7.1

TOTAL VALUE LOCKED IN DEFI PROTOCOLS ($ BILLIONS)



SOURCE: DIGITAL GOLD INSTITUTE, DEFILLAMA

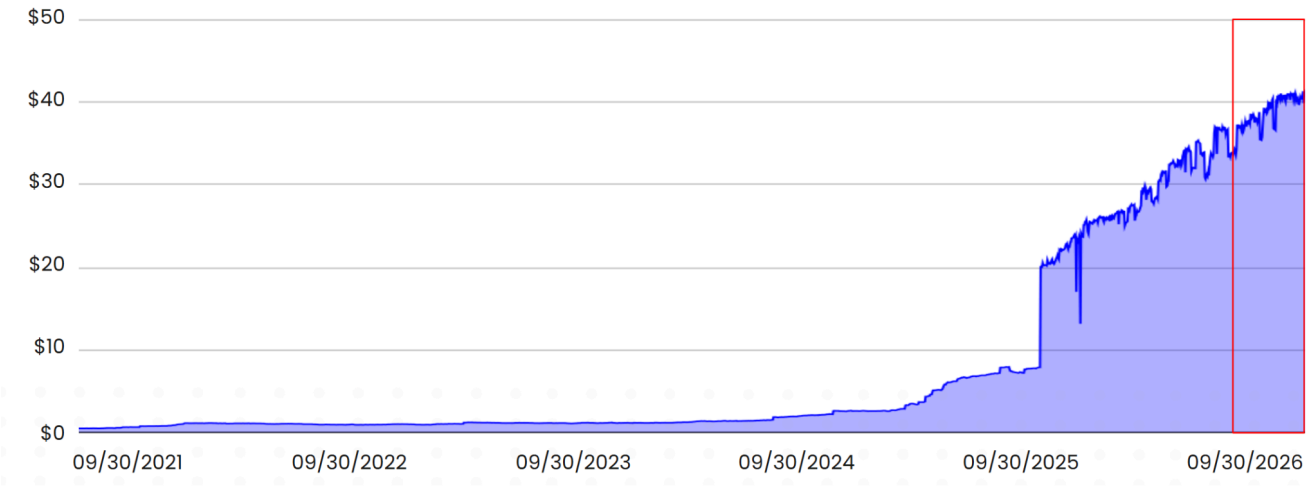
Tokenized Traditional Assets

The market capitalization of tokenized traditional assets grew 13% to $41.6 billion, close to record highs. The segment remains highly concentrated in Figure Heloc, which accounts for 58% of the total; excluding this instrument, market capitalization stands at approximately $17.6 billion. Money market and government bond funds dominate the top ten instruments, with a combined value of about $8.7 billion, followed by tokenized gold, which totals about $5.7 billion across Tether Gold, PAX Gold and Kinesis Gold. Spiko EU T-Bills is one of the few instruments in the ranking denominated in euros.

The segment's expansion has been accompanied by secondary market activity that remains limited relative to market capitalization. Trading volume rose 16% to $61 billion in the quarter, about 1.5 times market capitalization. For stablecoins, the ratio of volume to supply outstanding was close to 19 times. The comparison shows lower turnover in tokenized assets than in stablecoins, without directly measuring secondary market liquidity or depth.

CHART 8

TOKENIZED ASSETS MARKET CAPITALIZATION ($ BILLIONS)



SOURCE: DIGITAL GOLD INSTITUTE, COINGECKO
The jump in the series at the end of 2025 reflects the inclusion of Figure Heloc in CoinGecko data, not an increase in the market on a like-for-like basis.

Derivatives and Leverage

Bitcoin's 43% gain in the quarter was accompanied by an average funding rate on perpetual contracts of 6.55% annualized, below the benchmark level of about 11% represented by Binance's base rate. Compared with early 2024, when the same indicator exceeded 40%, this suggests more contained pressure from leveraged long positions than in previous rallies.

Bitcoin and Ether futures volume declined for the third consecutive quarter, to approximately $2.8 trillion and $2.3 trillion, respectively. Futures remain dominant in derivatives activity, with volume more than ten times that of options, confirming the central role of contracts used to take directional positions.

Against this backdrop, CME retains its leadership in Bitcoin futures, with about $470 billion traded in the quarter. The slight increase in its volume, against a contraction in the overall market, strengthens its relative weight and signals a greater role for the regulated channel in derivatives activity. Deribit remains the leading options venue, with Bitcoin options volume of about $165 billion, essentially unchanged from the previous quarter.

In trading between fiat currencies and crypto assets, the dollar remains dominant. Excluding stablecoin pairs, dollar-denominated trading accounts for about 88% of total volume across dollar and euro pairs. The share has been broadly stable since 2021.

Overall, inflows into spot ETFs and contained funding rates suggest a recovery supported by demand through regulated vehicles, with relatively moderate funding costs for long positions in perpetual contracts. The market remains sensitive to flows and exposed to corrections. Assessing the potential for liquidations to amplify price moves also requires information on outstanding positions, leverage levels and available margin.

ETFs and Institutional Demand

U.S.-listed spot Bitcoin and Ether ETFs drew $9.3 billion in net inflows in the third quarter, including $6.3 billion into Bitcoin products and $3.0 billion into Ether products. This marks a reversal from the second quarter, when Bitcoin ETFs alone recorded outflows of about $5 billion, peaking in June. Cumulative inflows into Bitcoin ETFs since launch thus rose back to about $58 billion, still below the peak of about $63 billion reached at the end of 2025.

ETF holdings increased by about 80,000 BTC from the end of June to 1,487,459 BTC. Their share of the maximum supply of 21 million BTC rose from 6.70% to 7.08%, an increase of about 0.38 percentage points. ETFs are a significant channel through which investor demand is transmitted to the spot market.

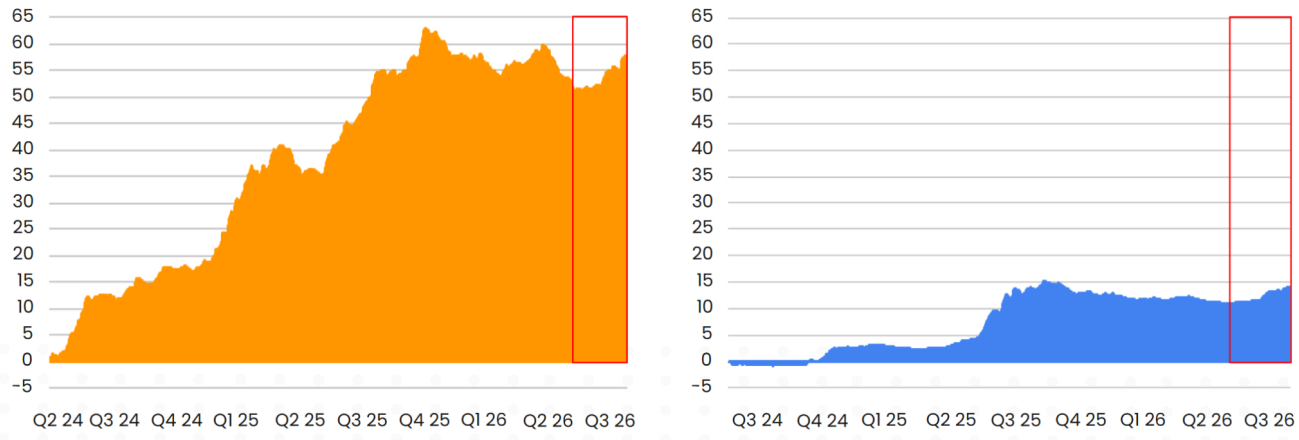
Public companies hold 1,213,010 BTC, or 5.77% of the maximum supply, with heavy concentration in Strategy. As of September 27, the company held 847,666 BTC, equivalent to about 70% of the category's total holdings. Governments, private companies and DeFi protocols hold 2.46%, 2.10% and 1.23% of the maximum supply, respectively.

Mining companies are the only category with declining holdings, down from 106,849 BTC at the end of June to 103,479 BTC at the end of September. The decline is consistent with the pressure on operating margins discussed in the technology chapter.

Overall, ETFs, public companies, private companies and governments hold nearly 3.7 million BTC, or about 17.4% of the maximum supply. The larger share held by institutional investors, associated with longer investment horizons, may have contributed to the decline in volatility observed in recent years.

CHART 9

CUMULATIVE FLOWS INTO BITCOIN AND ETHER ETFS ($ BILLIONS)



SOURCE: DIGITAL GOLD INSTITUTE, FARSIDE INVESTORS

TABLE 2

BITCOIN HOLDINGS BY CATEGORY

Category	# of BTC	Value as of 09/30/26	% of 21m
ETFs	1,487,459	$128.42bn	7.08%
Public Companies	1,213,010	$104.72bn	5.77%
Countries	518,526	$44.77bn	2.46%
Private Companies	441,792	$38.14bn	2.10%
DeFi	267,236	$23.07bn	1.23%
BTC Mining Companies	103,479	$8.93bn	0.49%

SOURCE: DIGITAL GOLD INSTITUTE, BITBO



Ecosystem

CHAPTER 2

Institutional Infrastructure and Counterparty Soundness

Institutional Infrastructure and Trading Platforms

In the third quarter, integration between traditional finance and the crypto market strengthened through the development of custody, trading and settlement services. On September 16, Deutsche Bank announced a crypto custody service for institutional and corporate clients in Europe. Rollout to the first clients is expected by the end of 2026, subject to completion of the authorization process. The initial offering will include Bitcoin, Ether and selected stablecoins, including USDC, EURC and EURAU. The bank plans to manage wallets and private keys directly and to support transfers to third parties, while the inclusion of tokenized financial instruments is planned for a later phase.

On the tokenized equities front, on September 10 Nasdaq agreed to a $100 million investment in Payward, the parent company of Kraken, deepening the partnership between the two firms. The project will connect Nasdaq Equity Tokens to Payward's xStocks ecosystem, with the aim of preserving shareholder rights as securities move between traditional markets and blockchains. Launch is expected in the second

quarter of 2027. Payward will also adopt Nasdaq's market surveillance technology to support trade monitoring and engagement with supervisors.

Integration is also advancing as crypto platforms enter traditional financial markets. Since August 18, Kraken has offered eligible clients in the European Economic Area trading in more than 7,000 U.S.-listed stocks under its MiFID II license. Clients can choose between traditional shares and xStocks, tokens backed by the underlying securities and transferable to self-custody wallets. The initiative confirms the evolution of exchanges into regulated platforms offering multiple asset classes.

Corporate Treasuries

Strategy resumed its Bitcoin purchases at the end of August, after a pause of about ten weeks following its first net sale since 2022. The transaction, funded through a common stock issuance, covered 4,603 BTC for $369.7 million, at an average price of about $80,300. Subsequent purchases in September brought its holdings to 847,666 BTC as of September 27, about 70% of the Bitcoin held by public companies and more than 4% of the maximum supply. The accumulation strategy remains closely tied to access to capital markets. Issuance terms and financial commitments, including dividends on preferred stock, determine the company's capacity to fund new purchases and the pace at which it can make them.

Counterparty Soundness

On September 23, BitMEX ceased operations, as announced in July. The platform suspended trading, deposits and the opening of new positions, allowing clients to withdraw their remaining balances. Founded in 2014, BitMEX had contributed to the development of crypto derivatives by introducing the perpetual contract, later adopted across the industry. The board of directors attributed the decision to a strategic review of the business and the market. For intermediaries, the case highlights the importance of including procedures for service wind-down, asset transfer and return in counterparty assessments.

In September, Revolut disclosed a data breach affecting about 680 customers, including holders of crypto assets. The attackers obtained the information through fraudulent requests purporting to come from a government agency. The exposed data include identity documents, home addresses, account information and crypto transaction histories. Revolut stated that its systems and customer funds were not compromised and notified those affected and the authorities. The ability to link wealth, identity and home address increases the risk of targeted fraud and, in the most serious cases, threats to personal safety. The incident therefore underscores the importance of verifying the authenticity of requests attributed to authorities as a data protection safeguard.



Regulation

CHAPTER 3

Implementation and Review of MiCAR

MiCAR Authorizations and Supervision

At the end of September, three months after the end of the transitional period, the ESMA register listed 360 crypto-asset service providers authorized under MiCAR. Authorizations have been granted by 27 countries, up from 25 at the end of June. Italy issued no new authorizations in the third quarter: the total remains at nine, ranking the country thirteenth by number of authorized firms.

In the Italian market, cross-border supply far exceeds domestic supply. At the end of September, 192 firms authorized in other countries had notified their intention to provide services in Italy, more than twenty times the number of firms authorized by Italian authorities. The EU passport broadens the range of services available to clients, while leaving direct supervision of a significant share of the firms operating in Italy with the authorities of their home member states.

The expansion of the authorized market has been accompanied by supervisory enforcement over offering and marketing practices. On August 14, the Financial Market Authority (FMA),

Austria's financial markets supervisor, published a final fine of €70,000 against Bitpanda for violations of MiCAR. It is the first legally binding sanction under the Regulation published by the Austrian authority. The violations concern the failure to submit a white paper at least 20 business days before publication, the release of marketing communications before the document was available, and the absence of mandatory information and contact details. For intermediaries, the case highlights the importance of coordinating regulatory notifications, the publication of documentation and client communications.

Stablecoins and Settlement of Tokenized Assets

In September, the European System of Central Banks proposed a revision of stablecoin reserve requirements as part of the European Commission's consultation on MiCAR. The proposal would eliminate the requirement to hold at least 30% of reserves in bank deposits, raised to 60% for significant tokens, replacing it with minimum shares of assets maturing within one and five business days. According to the central banks, the concentration of issuers' deposits can transmit liquidity stress to the banking system, while other reserve assets can be used to meet redemption requests. The recommendations require further assessment and legislative amendments; current requirements therefore remain in force. Any revision would affect the business model of euro stablecoin issuers and the bank funding provided by their reserves.

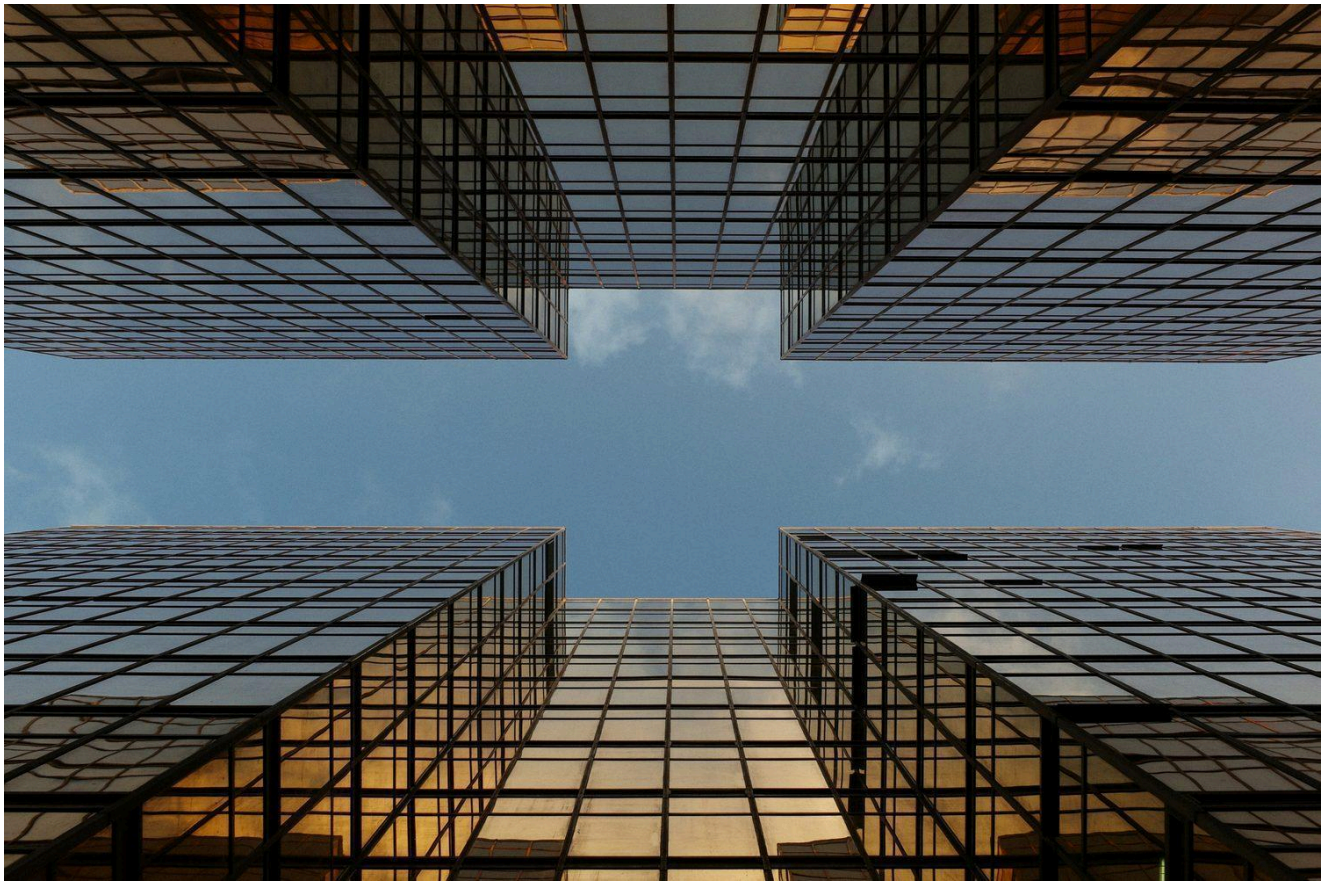
Alongside the debate on stablecoin reserves, the development of settlement infrastructure for tokenized finance continues. On September 21, the Eurosystem launched Pontes, the service that enables wholesale transactions in tokenized assets to settle in central bank money by connecting market participants' distributed ledger platforms to TARGET services. A first group of banks and market infrastructures has completed onboarding, while other participants will join gradually over the coming months. New features and extended operating hours are planned, with full implementation expected by 2028. Built on the Eurosystem's 2024 trials, Pontes addresses a core need of institutional tokenization by providing a settlement asset free of credit risk.

Italian Taxation and the U.S. Framework

On September 24, at the General Assembly of the Parliamentary Intergroup on Digital Assets, Blockchain and Bitcoin held at the Chamber of Deputies, participants addressed the alignment of the tax treatment of crypto assets with that of other financial investments. The proposals presented by the taxation working group include a return to the 26% rate from January 1, 2027, compared with the 33% rate applied since 2026. They also include the deductibility of costs related to capital gains and the ability to offset crypto capital losses against gains on other financial instruments, and vice versa. These are policy proposals, and their adoption would require legislative action.

In the United States, the CLARITY Act stalled on September 15, when the Senate failed to pass the procedural motion needed to advance the bill. With 49 votes in favor and 50 against, the motion fell short of the required 60-vote threshold. The debate focused on potential conflicts of interest linked to President Trump's crypto activities and on yields paid to stablecoin holders, which banking associations argue could drive deposit outflows. The bill would clarify the division of jurisdiction between the SEC and the CFTC over

digital asset markets. Absent the reform, the two agencies continue to operate under their existing authorities. While MiCAR has entered its implementation and review phase in Europe, a comprehensive market structure framework remains unresolved in the United States.



Technology

CHAPTER 4

Security and Operational Risk

Vulnerabilities in Processes and Control Systems

Third-quarter incidents exposed vulnerabilities in authorization processes and transaction validation systems. On September 24, Bitget suffered unauthorized transfers of approximately $388 million from its hot and warm wallets. According to the company's account, the attackers exploited a vulnerability in third-party software to forge withdrawal instructions, without compromising private keys or affecting cold wallets. Withdrawals, initially suspended, were gradually resumed from September 28. Bitget announced that its Protection Fund would cover the losses. The fund was valued at $464 million before it was used, with the stolen amount equivalent to approximately 84% of that value. On September 30, the company announced that it had replenished the fund to more than $300 million.

On September 6, a vulnerability in the validation software of Liquid, the Bitcoin sidechain developed by Blockstream, enabled the creation of about 4,000 unbacked L-BTC and their redemption for actual Bitcoin, worth

approximately $320 million. The system accepted counterfeit tokens as valid, allowing withdrawals from reserves without any compromise of private keys. Blockstream coordinated a network halt and patched the vulnerability. The following day the attackers returned 3,400 BTC; in its September 23 update, the company reported about 602 BTC still unrecovered, worth more than $50 million at quarter-end prices. The Bitcoin protocol was not affected.

In the case of Coldcard, the vulnerability instead affected key generation. In July, Coinkite disclosed a firmware flaw that reduced the randomness of the seeds used to create wallets. Attackers reconstructed the private keys associated with the vulnerable seeds and stole Bitcoin without physical access to the devices, even when they were stored offline. The firmware update fixes the generation of new seeds but does not secure those created with the vulnerable version, which must be replaced by moving funds to new wallets.

On July 28, Zcash activated Ironwood, a new shielded pool introduced in response to the Orchard vulnerability discovered in May. Orchard no longer accepts new deposits and limits withdrawals to verifiably deposited amounts. Ironwood incorporates formal verification and an independent security review to protect supply integrity and transaction privacy. Developers found no evidence that the vulnerability was exploited, but acknowledge that transaction analysis alone cannot rule out past counterfeiting. Users must therefore migrate their funds from Orchard to Ironwood.

Overall, the four incidents highlight the need to assess the security of the entire service architecture. For intermediaries, due diligence on custody providers must cover key generation, authorization controls, dependencies on external software and incident response procedures. Key protection remains an essential safeguard, but its effectiveness also depends on the reliability of the processes and validation logic that govern key use.

The Bitcoin Network

Supply Nearing Its Cap and Funding Network Security

During 2026, circulating supply surpassed 20 million BTC, more than 95% of the 21 million cap. The remaining million will be issued over approximately 114 years at a steadily declining pace. With issuance of 3.125 BTC per block, the network generates about 450 BTC per day, and annual supply growth is below 1%. The next halving, expected in 2028, will further halve the rate of issuance.

Hash rate, which measures the computing power securing the network, held between 900 and 1,000 exahashes per second during the quarter. Although below the peak of about 1,270 recorded between late 2025 and early 2026, it remains historically high. The price correction was therefore not accompanied by a decline in computing power large enough to signal a significant weakening of network security.

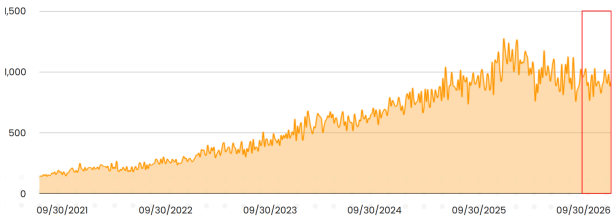
Mining profitability, by contrast, remains under pressure. Hashprice, the daily revenue per petahash per second of computing power, stands at around $45. Bitcoin's rally supported a slight recovery, but the level remains far from the $400 of 2021. The compression in revenue per unit of hash power is consistent with the decline in holdings among mining companies, the only institutional category whose holdings fell during the quarter.

Transaction fees account for less than 1% of miners' total revenue, compared with peaks above 20% in 2023 and 2024. Funding for network security therefore depends almost entirely on the issuance of new BTC. With the block subsidy halving roughly every four years, the ability of fees or Bitcoin's appreciation to offset the steady decline in BTC issuance

becomes relevant over the long term. This dynamic is a structural factor to monitor, rather than a sign of immediate concern.

CHART 10

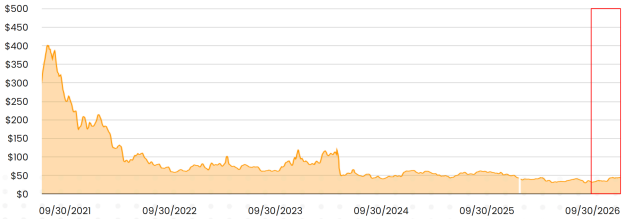
HASH RATE (EXAHASHES PER SECOND)



SOURCE: DIGITAL GOLD INSTITUTE, BLOCKCHAIN.COM

CHART 10.1

HASHPRICE ($ PER PETAHASH PER SECOND PER DAY)



SOURCE: DIGITAL GOLD INSTITUTE, BLOCKCHAIN.COM

The Quarter in Perspective

The third-quarter recovery ended three consecutive quarters of correction, with dynamics that differ from those of previous speculative phases. Bitcoin's 43% gain and Ether's 71% gain were accompanied by lower overall volume, a further contraction in futures trading and average funding rates below the benchmark level. Net inflows of $9.3 billion into spot ETFs, following record outflows in the second quarter, signal the return of demand through regulated vehicles.

These developments highlight the role of flows through regulated vehicles in price dynamics. Assessing the risk of forced liquidations also requires information on outstanding positions, leverage levels and available margin. At the same time, the greater role of regulated vehicles makes investors' allocation and redemption decisions more relevant. The same channel that supported the recovery had contributed to price pressure through second-quarter outflows.

Assessing the recovery, however, requires a broader horizon. Bitcoin remains about one third below its all-time high, with negative returns both year over year and year to date, and has underperformed U.S. equities and most of the leading technology stocks. Risk-adjusted return metrics have improved but remain below those of the S&P 500 and gold. Lower volatility and low correlations with traditional assets, on the other hand, support its potential contribution to diversification.

Integration with traditional finance also extends to custody, trading and settlement infrastructure. The service announced by Deutsche Bank, Nasdaq's agreed investment in Payward and the launch of Pontes come as tokenized traditional assets exceed $41 billion in market capitalization. Secondary market liquidity, however, remains less developed than for stablecoins and major crypto assets, limiting the depth of the market for tokenized instruments.

In Europe, growth in the number of authorized firms is proceeding alongside supervisory enforcement and the debate on calibrating MiCAR. The sanction published in Austria and the debate on stablecoin reserve requirements highlight the importance of supervisory quality and regulatory effectiveness. The Italian market remains characterized by the predominance of cross-border over domestic supply, while the debate continues on aligning the tax treatment of crypto assets with other financial investments. In the United States, the CLARITY Act impasse prolongs uncertainty over the division of jurisdiction and the regulatory structure of the market.

The incidents at Bitget and Liquid, the Coldcard vulnerability, the wind-down of BitMEX and the Revolut data breach exposed weaknesses in the processes, software and organizations that provide market access, without affecting the Bitcoin protocol. For intermediaries developing crypto services, risk management must therefore combine monitoring of market exposures with counterparty selection and due diligence on technology providers.

Glossary

Bitcoin dominance. Bitcoin's share of total crypto market capitalization.

Calmar ratio. Ratio of annualized return to the absolute value of maximum drawdown, both measured over the same period.

CASP. Crypto-asset service provider authorized under the MiCA Regulation.

Cumulative flows. Sum of ETF net inflows since launch, calculated as subscriptions minus redemptions.

Currency effect. Difference between Bitcoin's return in euros and its return in dollars, resulting from changes in the EUR/USD exchange rate. This report uses ECB reference rates.

Decentralized exchange (DEX). Platform that enables trading directly from wallets through smart contracts. This report includes spot volume only, excluding derivatives.

DeFi tokens. Tokens issued by decentralized finance protocols. The report's scope excludes stablecoins, wrapped tokens and liquid staking tokens.

Drawdown. Decline in the value of an asset from its previous peak to the subsequent trough.

Fear & Greed Index. Indicator of investor sentiment toward Bitcoin, ranging from 0 (extreme fear) to 100 (extreme greed).

Fee share of miner revenue. Share of transaction fees in miners' total revenue, including block rewards.

Funding rate. Periodic payment between long and short positions in perpetual futures, expressed in this report on an annualized basis. Positive values indicate payments from long holders to short holders.

Hash rate. Total computing power used to validate transactions and secure the network.

Hashprice. Miners' daily revenue per petahash per second of computing power, before costs.

Sharpe ratio. Ratio of excess return to total volatility, used to measure risk-adjusted return.

Sortino ratio. Ratio of the average return above a target return to downside deviation, which measures return shortfalls below that same target.

Tokenized assets. Traditional assets, such as loans, bonds or gold, represented by tokens on a blockchain. In this report, the segment excludes stablecoins.

Total Value Locked (TVL). Value of crypto assets deposited in decentralized finance protocols.

The Digital Gold Institute

Founded in 2018, the Digital Gold Institute is CheckSig's research and development center dedicated to Bitcoin, crypto assets and blockchain. The Institute analyzes the evolution of the industry and its integration with traditional finance through an approach that combines financial, technological and regulatory expertise.

Its research, advisory and training activities support intermediaries and financial institutions in defining digital asset strategies and designing services and operating models. Its training programs are aimed in particular at professionals in compliance, technology and financial advisory.

In collaboration with the University of Milano Bicocca, the Digital Gold Institute is a founding member of the Crypto Asset Lab, a research initiative with a European reach. Each year, together with the European Commission, the lab hosts the Crypto Asset Lab Conference, which brings together leaders from academia, finance, public institutions and regulators to examine the evolution of crypto assets and blockchain.

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