

Crypto Market Review

Q3.24

Bitwise®

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Q3 2024: Marking Time, Making Progress

Crypto prices went nowhere in Q3. The Bitwise 10 Large Cap Crypto Index ended the quarter down 3.5%, one of the smallest quarterly price movements in crypto's history.

But the quiet on the surface masked a huge amount of progress underneath. This quarterly report captures that progress, including highlights like:

- **The clear emergence of multiple “killer apps” in crypto**, with surging growth in stablecoin transactions, tokenized Treasury AUM, and novel applications like Polymarket.
- **Continued growth in ETFs**, including strong net flows into bitcoin ETFs, widespread adoption of ETFs by key components of the institutional investor ecosystem, and the shock approval of Ethereum ETFs.
- **Quiet progress in the Ethereum ecosystem**, with new all-time highs in transaction activity and massive growth in Layer 2 solutions.

The report also captures the weak spots in crypto's fundamentals—the things that in our opinion contributed to the softness we saw in prices. Among the items that caught our attention:

- **A drop in net revenue by leading blockchains**, which fell 61.61% quarter-over-quarter to the lowest level since Q1 2023.
- **Rising correlation between bitcoin and equities**, which hit its highest level since 2020 at 0.49. That still counts as “low” by academic standards, but it's higher than many crypto investors like or are used to.
- **Mixed results on trading volume, VC activity, and other measures of “animal spirits,”** which suggests a crypto market waiting for its next catalyst.

Ultimately, my guess is that the weakness is temporary. To that end, I'd direct your attention to page 5, a new feature we've added to the report looking at key upcoming catalysts for the space. We believe crypto is set up for a very strong Q4 and that these catalysts could catapult prices to new all-time highs.

There's a lot of great information in this quarter's report. Enjoy!



Matt Hougan
Chief Investment Officer
Bitwise Asset Management

10 Noteworthy Developments in Q3 2024

Politicians Embrace Crypto

Republican nominee Donald Trump speaks at Bitcoin 2024 conference in Nashville; Democratic nominee Kamala Harris gives crypto a nod.

Shock Ethereum ETF Approval

SEC approves spot Ethereum ETFs well ahead of market predictions.

Morgan Stanley Opens the Door for Bitcoin

Becomes first major wirehouse to allow wealth managers to buy bitcoin ETPs.

Tether Prints Money (in a Good Way)

Largest stablecoin issuer earns more profit than BlackRock (\$6.2B vs. \$5.5B).

Bitcoin ETFs Get Options

SEC gives spot bitcoin ETF options a green light.

Here Come the Banks...

SEC quietly approves Bank of New York Mellon to start custodial crypto assets.

...And the Institutions

Data reveals 60% of the world's largest hedge funds own crypto.

Polymarket Crosses the Chasm

Political markets cross \$1B in volume as prediction markets go mainstream; data piped in to Bloomberg

Mt. Gox Distributes Majority of Bitcoin

The bankruptcy distributions hung over the market for a decade. We're finally getting past it.

Car Titles on the Blockchain

The California DMV puts 42 million car titles on the Avalanche blockchain to speed up title transfer.

Key Upcoming Catalysts

U.S. Elections + Regulatory Progress

Election outcome uncertainty is weighing on market sentiment.

However, crypto now boasts one of the most effective political lobbies and bipartisan support in Congress.

As a result, we expect pro-crypto legislation to pass through Congress regardless of who wins the White House.

Rate Cuts + Economic Stimulus

We've entered a global monetary easing cycle: The Fed is cutting rates, China has unleashed \$250 billion in economic stimulus, and global liquidity measures are at an all-time high.

Going forward, any sign of economic weakness will be met with overwhelming stimulus.

Low rates, easy money and government support create an attractive environment for crypto.

Reaccelerating ETF Flows

Bitcoin ETFs have pulled in \$18.9 billion since launch, making them the most successful ETF launch of all time.

Major wirehouses are set to approve bitcoin ETFs in the coming months.

We believe this could lead to banner periods for ETF flows in Q4 and 2025, and could potentially drive prices to all-time highs.

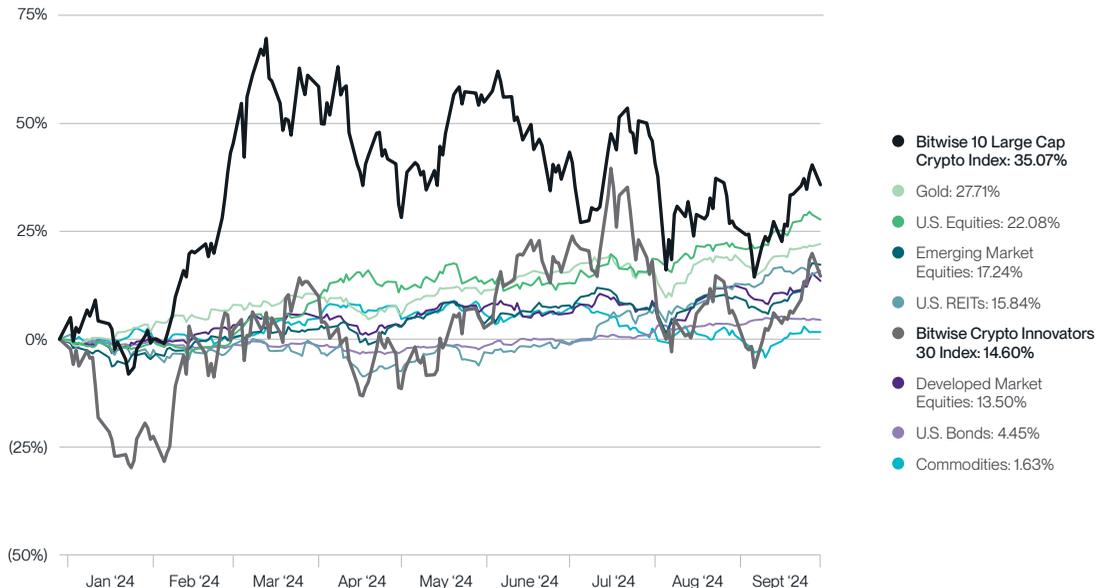
Killer Apps + Exciting New Launches

Crypto thrives on the emergence of killer apps and new blockchains (think of the "DeFi Summer" of 2020 or the excitement that surrounded the growth of blockchains like Solana).

This is exactly what we foresee over the coming months as multiple killer apps are scaling simultaneously, from stablecoins to DePIN to prediction markets.

At the same time, excitement is building around newer blockchains like Near, Sui, Aptos, and Monad.

Performance of Crypto vs. Major Asset Classes



Source: Bitwise Asset Management with data from Bloomberg. Data as of September 30, 2024.

Note: Asset classes are represented by the following. Commodities: Deutsche Bank DBIQ Optimum Yield Diversified Commodity Index Total Return. Developed Market Equities: MSCI EAFE Gross Total Return USD Index. Emerging Market Equities: MSCI Emerging Markets Gross Total Return USD Index. Gold: Gold spot price. U.S. Bonds: Bloomberg U.S. Aggregate Bond Index. U.S. Equities: S&P 500 Total Return Index. U.S. REITs: MSCI U.S. REIT Gross Total Return Index. For definitions of the indexes and assets listed here, [see p.67](#).

All calculations are total return, including dividends for the stated period. Performance of an index is not illustrative of any particular investment. It is not possible to invest directly in an index. Index performance does not include the fees and expenses that are charged by any Fund. Fund returns may differ materially from the returns of an index. Past performance is no guarantee of future results. Please refer to additional important disclosures at the back of this document.

Performance of Crypto vs. Major Asset Classes

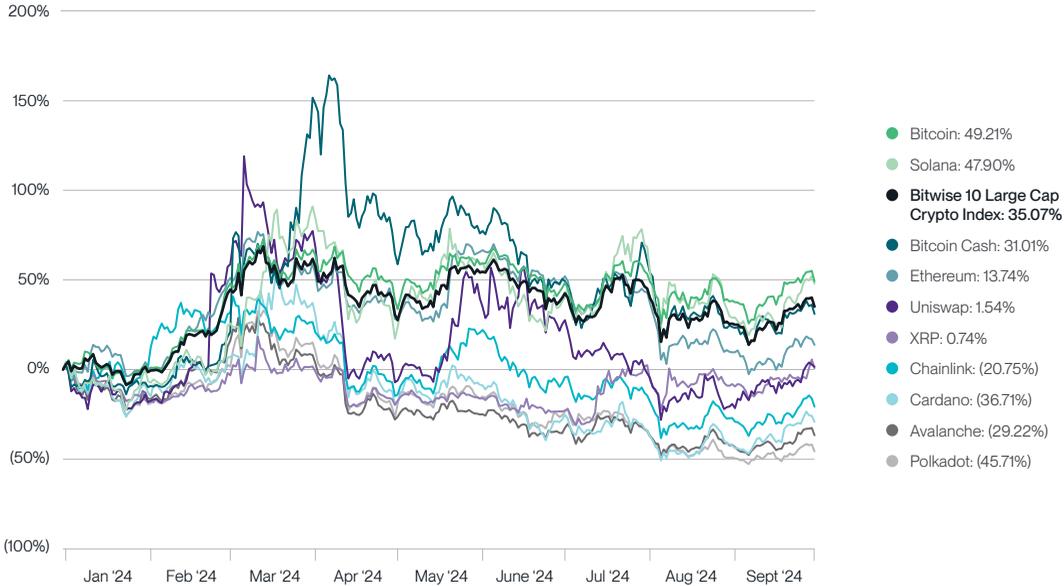
	— Cumulative —					— Annualized —	
	Q3 2024	2024 (YTD)	1 YR	3 YR	5 YR	3 YR	5 YR
Bitwise 10 Large Cap Crypto Index	(3.54%)	35.07%	110.58%	10.98%	587.33%	3.53%	46.98%
Bitwise Crypto Innovators 30 Index	(0.85%)	14.60%	101.34%	(37.31%)	—	(14.40%)	—
Gold	13.23%	27.71%	42.52%	49.95%	78.92%	14.06%	11.96%
U.S. Equities	5.89%	22.08%	36.35%	40.17%	109.83%	11.90%	15.96%
Emerging Market Equities	8.88%	17.24%	26.54%	2.47%	34.77%	0.82%	6.14%
U.S. REITs	16.12%	15.84%	34.38%	15.69%	30.50%	4.97%	5.46%
Developed Market Equities	7.33%	13.50%	25.38%	19.18%	51.91%	6.02%	8.71%
U.S. Bonds	5.20%	4.45%	11.57%	(4.11%)	1.67%	(1.39%)	0.33%
Commodities	(4.12%)	1.63%	(5.56%)	20.12%	66.22%	6.29%	10.69%

Source: Bitwise Asset Management with data from Bloomberg. Data as of September 30, 2024.

Note: Asset classes are represented by the following. Commodities: Deutsche Bank DBIQ Optimum Yield Diversified Commodity Index Total Return. Developed Market Equities: MSCI EAFE Gross Total Return USD Index. Emerging Market Equities: MSCI Emerging Markets Gross Total Return USD Index. Gold: Gold spot price. U.S. Bonds: Bloomberg U.S. Aggregate Bond Index. U.S. Equities: S&P 500 Total Return Index. U.S. REITs: MSCI U.S. REIT Gross Total Return Index. For definitions of the indexes and assets listed here, [see p.67](#).

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Performance of the Bitwise 10 Large Cap Crypto Index and Its Constituents



— Year-to-Date Returns —

Source: Bitwise Asset Management. Data as of September 30, 2024.

The Bitwise 10 Large Cap Crypto Index captures the 10 largest eligible crypto assets by free-float-adjusted market capitalization, screened and monitored for certain risks. Performance of an index is not illustrative of any particular investment. It is not possible to invest directly in an index. Index performance and crypto asset performance do not include the fees and expenses that are charged by any fund. Fund returns may differ materially from the returns of an index or crypto asset. Past performance is no guarantee of future results. Please refer to additional important disclosures at the back of this document.

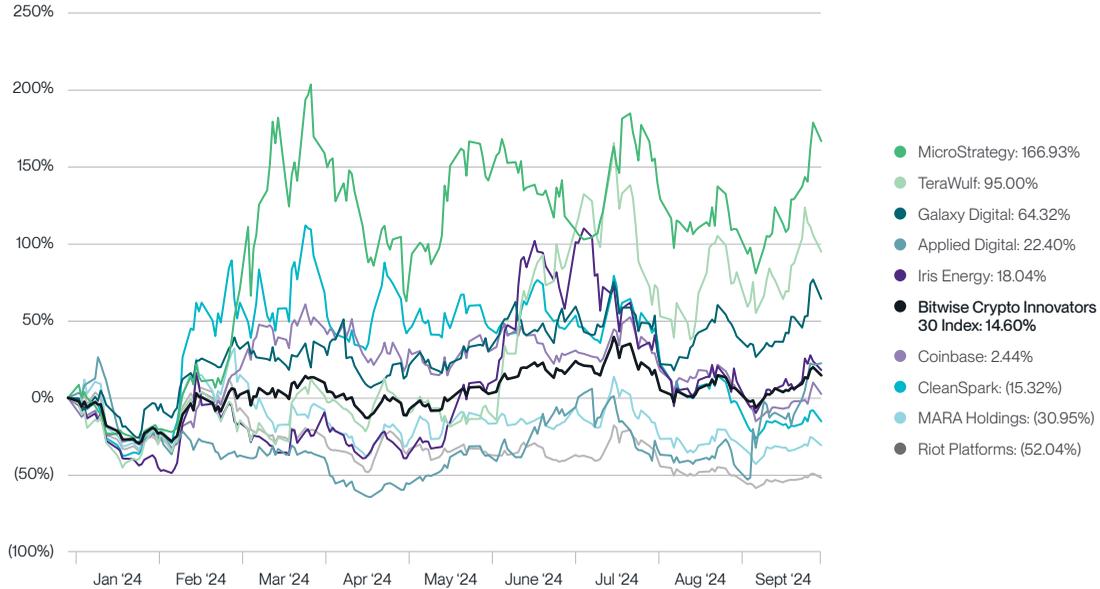
Performance of the Bitwise 10 Large Cap Crypto Index and Its Constituents

INDEX WEIGHT	— Cumulative —					— Annualized —		
	Q3 2024	2024 (YTD)	1 YR	3 YR	5 YR	3 YR	5 YR	
Bitwise 10 Large Cap Crypto Index	—	(3.54%)	35.07%	110.58%	10.98%	587.33%	3.53%	46.98%
Bitcoin (BTC)	72.72%	2.48%	49.21%	134.79%	45.73%	665.93%	13.36%	50.19%
Ethereum (ETH)	18.11%	(24.21%)	13.74%	54.48%	(13.33%)	1,355.66%	(4.65%)	70.75%
Solana (SOL)	4.19%	7.16%	47.90%	623.87%	11.26%	—	3.62%	—
XRP (XRP)	2.03%	31.49%	0.74%	20.15%	(34.18%)	143.18%	(13.00%)	19.36%
Cardano (ADA)	0.78%	(1.79%)	(36.71%)	49.29%	(81.98%)	871.42%	(43.51%)	57.53%
Avalanche (AVAX)	0.66%	(1.90%)	(29.22%)	201.62%	(57.29%)	—	(24.67%)	—
Chainlink (LINK)	0.42%	(14.40%)	(20.75%)	46.30%	(49.11%)	587.09%	(20.15%)	46.97%
Bitcoin Cash (BCH)	0.39%	(13.01%)	31.01%	44.59%	(31.49%)	50.55%	(11.83%)	8.52%
Polkadot (DOT)	0.37%	(27.03%)	(45.71%)	9.93%	(84.11%)	—	(45.84%)	—
Uniswap (UNI)	0.33%	(18.95%)	1.54%	66.82%	(67.47%)	—	(31.20%)	—

Source: Bitwise Asset Management. Data as of September 30, 2024.

The Bitwise 10 Large Cap Crypto Index captures the 10 largest eligible crypto assets by free-float-adjusted market capitalization, screened and monitored for certain risks. Performance of an index is not illustrative of any particular investment. It is not possible to invest directly in an index. Index performance and crypto asset performance do not include the fees and expenses that are charged by any fund. Fund returns may differ materially from the returns of an index or crypto asset. Past performance is no guarantee of future results. Please refer to additional important disclosures at the back of this document.

Performance of the Bitwise Crypto Innovators 30 Index and Its Top Constituents



Source: Bitwise Asset Management with data from Bloomberg. Data as of September 30, 2024.

The Bitwise Crypto Innovators 30 Total Return Index is an equity index that provides focused exposure to companies that are building the future of the crypto-asset-enabled decentralized economy. Performance of an index is not illustrative of any particular investment. It is not possible to invest directly in an index. Index performance and equity performance do not include the fees and expenses that are charged by any fund. Fund returns may differ materially from the returns of an index or individual equity. Past performance is no guarantee of future results. Please refer to additional important disclosures at the back of this document.

Note: Core Scientific (CORZ) relisted on the Nasdaq on January 24, 2024 and therefore is not shown on this chart.

Performance of the Bitwise Crypto Innovators 30 Index and Its Top Constituents

INDEX WEIGHT	— Cumulative —					— Annualized —		
	Q3 2024	2024 (YTD)	1 YR	3 YR	5 YR	3 YR	5 YR	
Bitwise Crypto Innovators 30 Index	—	(0.85%)	14.60%	101.34%	(37.31%)	—	(14.40%)	—
MicroStrategy (MSTR)	11.91%	22.40%	166.93%	413.59%	191.49%	1,036.35%	42.80%	62.51%
MARA Holdings (MARA)	9.80%	(18.29%)	(30.95%)	90.82%	(48.64%)	826.86%	(19.90%)	56.02%
Coinbase (COIN)	9.77%	(19.83%)	2.44%	137.31%	(21.68%)	—	(7.81%)	—
Iris Energy (IREN)	4.76%	(25.24%)	18.04%	127.49%	—	—	—	—
Applied Digital (APLD)	4.75%	38.66%	22.40%	32.21%	(31.25%)	—	(11.73%)	—
Galaxy Digital (GLXY CN)	4.70%	9.99%	64.32%	248.87%	(21.00%)	1,005.07%	(7.55%)	61.60%
Core Scientific (CORZ)	4.62%	27.53%	244.77%*	—	—	—	—	—
TeraWulf (WULF)	4.57%	5.17%	95.00%	271.43%	(83.52%)	(26.18%)	(45.15%)	(5.88%)
Riot Platforms (RIOT)	4.23%	(18.82%)	(52.04%)	(20.47%)	(71.13%)	316.85%	(33.88%)	33.00%
CleanSpark (CLSK)	4.20%	(41.44%)	(15.32%)	145.14%	(19.41%)	9.88%	(6.94%)	1.90%

Source: Bitwise Asset Management with data from Bloomberg. Index weights as of September 20, 2024. Data as of September 30, 2024.

The Bitwise Crypto Innovators 30 Total Return Index is an equity index that provides focused exposure to companies that are building the future of the crypto-asset-enabled decentralized economy. Performance of an index is not illustrative of any particular investment. It is not possible to invest directly in an index. Index performance and equity performance do not include the fees and expenses that are charged by any fund. Fund returns may differ materially from the returns of an index or individual equity. Past performance is no guarantee of future results. Please refer to additional important disclosures at the back of this document.

*Note: Core Scientific (CORZ) relisted on the Nasdaq on January 24, 2024. YTD performance is shown since that date.

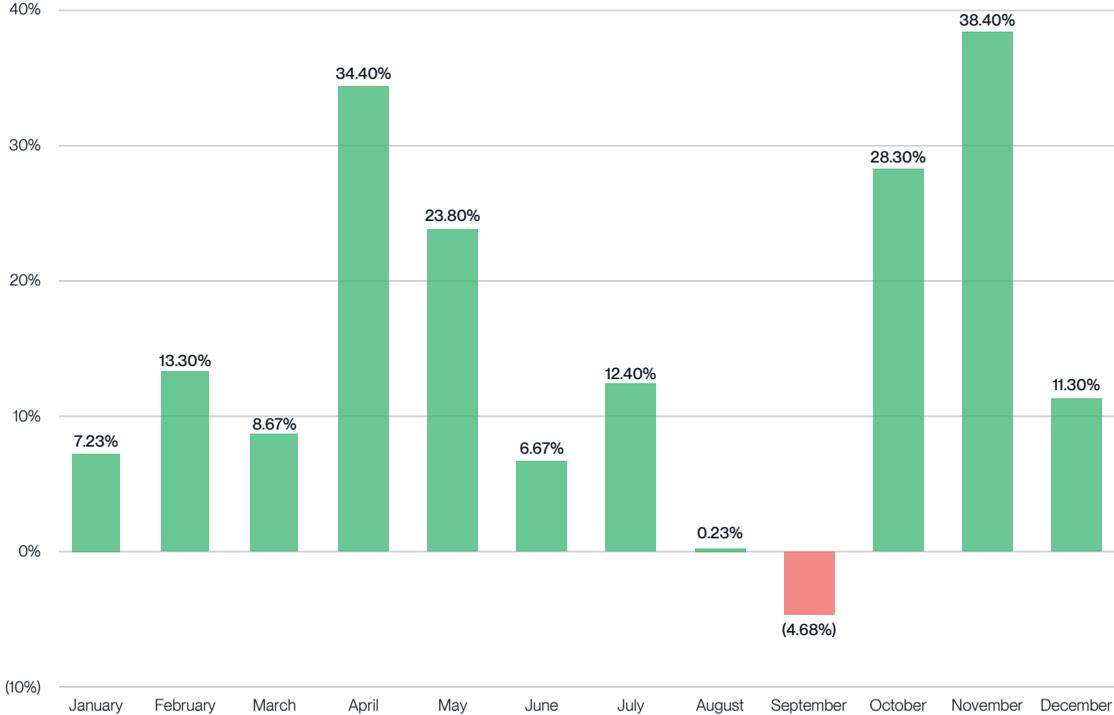
Total Crypto Market Capitalization



Source: Bitwise Asset Management with data from CoinGecko and The Block. Chart data from April 28, 2013 to September 30, 2024. Table data as of September 30, 2024.

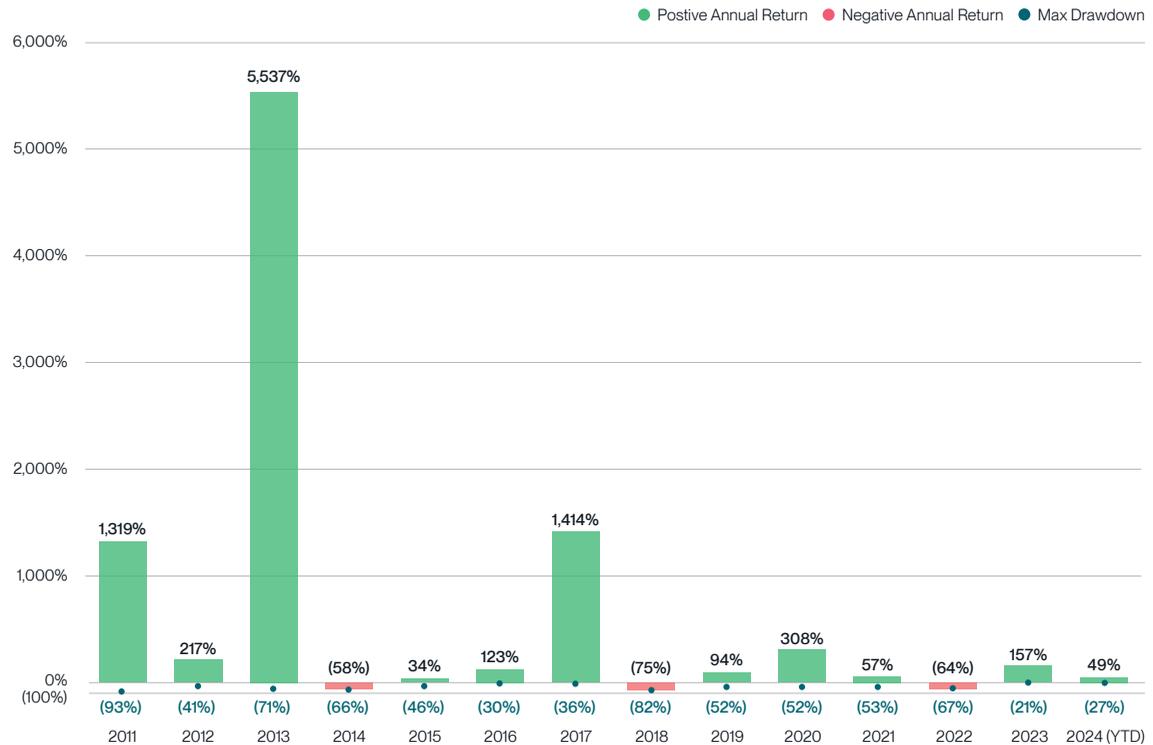
Note: "Others" includes all crypto assets for which data is available from CoinGecko and The Block, excluding stablecoins, Bitcoin, and Ethereum. Values in table may not add to total due to rounding.

Bitcoin Seasonality: Average Monthly Performance



Source: Bitwise Asset Management. Data from October 1, 2010 to September 30, 2024. Past performance is no guarantee of future results.

Bitcoin: Annual Returns vs. Intrayear Declines



Source: Bitwise Asset Management. Data from January 1, 2011 to September 30, 2024. Past performance is no guarantee of future results.

Bitcoin Performance: Four-Year Cycles

<i>"The Bitcoin Cycle"</i>		<i>"The Ethereum Cycle"</i>		<i>"The Early Application Cycle"</i>		<i>"The Mainstream Cycle"</i>	
YEAR	BTC	YEAR	BTC	YEAR	BTC	YEAR	BTC
2011	1,319%	2015	34%	2019	94%	2023	157%
2012	217%	2016	123%	2020	308%	2024 (YTD)	49%
2013	5,537%	2017	1,414%	2021	57%	2025	—
2014	(58%)	2018	(75%)	2022	(64%)	2026	—

Source: Bitwise Asset Management. Data from December 31, 2010 to September 30, 2024.

Note: The names given to the four-year cycles represent our assessment of the forces that most contributed to bitcoin's performance during that period.

Performance information is provided for informational purposes only. Returns reflect the return of bitcoin itself, and not of any fund or account, and do not include any fees. Backward-looking performance cannot predict how any investment strategy will perform in the future. Future crypto cycles may not be four years long; the four-year increment is based on historical data for illustrative purposes and is not a prediction of future results. This material represents an assessment of the market environment at a specific time and is not intended to be a forecast of future events, or a guarantee of future results.

Historical Bitcoin Performance After Bitcoin Halvings



Source: Bitwise Asset Management. Data from July 9, 2016 to September 30, 2024. Past performance is no guarantee of future results.

Performance of Major Assets and Asset Classes

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 (YTD)
Bitcoin 1,319.09%	Bitcoin 217.26%	Bitcoin 5,537.40%	U.S. REITs 30.38%	Bitcoin 33.74%	Bitcoin 123.31%	Bitcoin 1,414.10%	U.S. Bonds 0.01%	Bitcoin 93.95%	Bitcoin 308.17%	Bitcoin 57.25%	Commodities 21.23%	Bitcoin 156.89%	Bitcoin 49.21%
Gold 10.10%	EM Equities 18.63%	U.S. Equities 32.39%	U.S. Equities 13.69%	U.S. REITs 2.52%	Commodities 19.53%	EM Equities 37.75%	Gold (1.56%)	U.S. Equities 31.49%	Gold 25.12%	U.S. REITs 43.06%	Gold (0.28%)	U.S. Equities 26.29%	Gold 27.71%
U.S. REITs 8.69%	DM Equities 17.90%	DM Equities 23.29%	U.S. Bonds 5.97%	U.S. Equities 1.38%	U.S. Equities 11.96%	DM Equities 25.62%	U.S. Equities (4.38%)	U.S. REITs 25.84%	EM Equities 18.69%	Commodities 42.60%	U.S. Bonds (13.01%)	DM Equities 18.85%	U.S. Equities 22.08%
U.S. Bonds 7.84%	U.S. REITs 17.77%	U.S. REITs 2.47%	Gold (1.44%)	U.S. Bonds 0.55%	EM Equities 11.60%	U.S. Equities 21.83%	U.S. REITs (4.57%)	DM Equities 22.86%	U.S. Equities 18.40%	U.S. Equities 28.71%	DM Equities (14.01%)	U.S. REITs 13.74%	EM Equities 17.24%
U.S. Equities 2.1%	U.S. Equities 16.00%	U.S. Bonds (2.02%)	EM Equities (1.82%)	DM Equities (0.39%)	U.S. REITs 8.60%	Gold 13.53%	Commodities (11.18%)	EM Equities 18.88%	DM Equities 8.28%	DM Equities 11.78%	U.S. Equities (18.11%)	Gold 13.10%	U.S. REITs 15.84%
Commodities (2.39%)	Gold 7.06%	EM Equities (2.27%)	DM Equities (4.48%)	Gold (10.41%)	Gold 8.14%	Commodities 6.16%	DM Equities (13.36%)	Gold 18.31%	U.S. Bonds 7.51%	U.S. Bonds (1.54%)	EM Equities (19.74%)	EM Equities 10.27%	DM Equities 13.50%
DM Equities (11.73%)	U.S. Bonds 4.22%	Commodities (6.55%)	Commodities (26.43%)	EM Equities (14.60%)	U.S. Bonds 2.65%	U.S. REITs 5.07%	EM Equities (14.24%)	Commodities 12.94%	Commodities (7.53%)	EM Equities (2.22%)	U.S. REITs (24.51%)	U.S. Bonds 5.53%	U.S. Bonds 4.45%
EM Equities (18.17%)	Commodities 4.16%	Gold (28.28%)	Bitcoin (57.74%)	Commodities (26.68%)	DM Equities 15.1%	U.S. Bonds 3.54%	Bitcoin (74.67%)	U.S. Bonds 8.72%	U.S. REITs (7.57%)	Gold (3.64%)	Bitcoin (63.90%)	Commodities (5.33%)	Commodities 1.63%

Source: Bitwise Asset Management with data from Bloomberg. Data from December 31, 2010 to September 30, 2024.

Note: Asset classes are represented by the following. Bitcoin: BTC spot price. Gold: Gold spot price. U.S. REITs: MSCI U.S. REIT Gross Total Return Index. U.S. Bonds: Bloomberg U.S. Aggregate Bond Index. U.S. Equities: S&P 500 Total Return Index. Commodities: Deutsche Bank DBIQ Optimum Yield Diversified Commodity Index Total Return. DM Equities: MSCI EAFE Gross Total Return USD Index. EM Equities: MSCI Emerging Markets Gross Total Return USD Index. All calculations are total return, including dividends for the stated period. For definitions of the indexes and assets listed here, [see p.67](#).

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Correlations of Select Assets and Asset Classes

90-Day Rolling

BITWISE 10 LARGE CAP CRYPTO INDEX	1.00										
BITWISE CRYPTO INNOVATORS 30 INDEX	0.73	1.00									
BITCOIN	0.99	0.73	1.00								
U.S. EQUITIES	0.52	0.63	0.49	1.00							
DEVELOPED MARKET EQUITIES	0.34	0.31	0.30	0.51	1.00						
EMERGING MARKET EQUITIES	0.24	0.18	0.21	0.39	0.70	1.00					
COMMODITIES	0.05	0.21	0.03	0.33	0.35	0.33	1.00				
U.S. REITS	0.37	0.28	0.35	0.45	0.37	0.14	(0.05)	1.00			
U.S. BONDS	(0.08)	(0.02)	(0.05)	0.01	0.06	(0.04)	(0.15)	0.26	1.00		
GOLD	0.22	0.32	0.21	0.33	0.36	0.40	0.41	0.27	0.35	1.00	
	BITWISE 10 LARGE CAP CRYPTO INDEX	BITWISE CRYPTO INNOVATORS 30 INDEX	BITCOIN	U.S. EQUITIES	DEVELOPED MARKET EQUITIES	EMERGING MARKET EQUITIES	COMMODITIES	U.S. REITS	U.S. BONDS	GOLD	

Source: Bitwise Asset Management with data from Bloomberg. Data as of September 30, 2024.

Note: Asset classes are represented by the following. U.S. Equities: S&P 500 Total Return Index. Developed Market Equities: MSCI EAFE Gross Total Return USD Index. Emerging Market Equities: MSCI Emerging Markets Gross Total Return USD Index. Commodities: Deutsche Bank DBIQ Optimum Yield Diversified Commodity Index Total Return. U.S. REITs: MSCI U.S. REIT Gross Total Return Index. U.S. Bonds: Bloomberg U.S. Aggregate Bond Index. Gold: Gold spot price. For definitions of the indexes and assets listed here, [see p.67](#).

Bitcoin Ownership by Type

Total Number of Bitcoin:

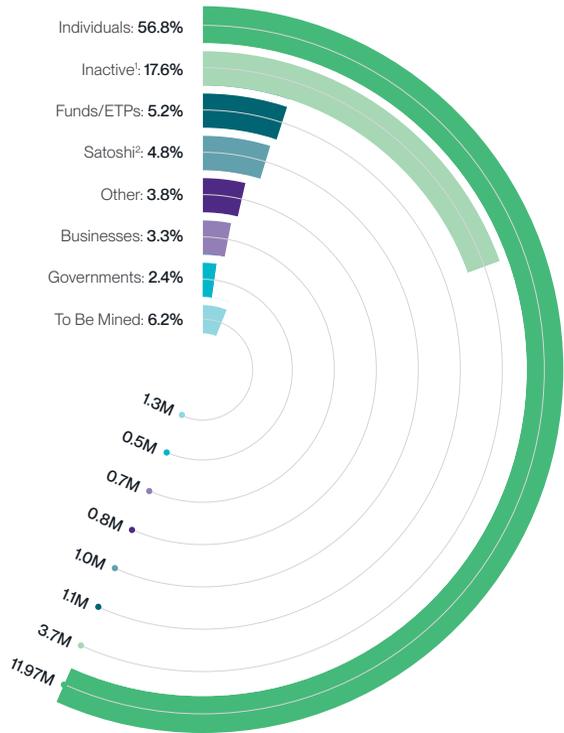
21 Million

Source: Bitwise Asset Management with data from River, BitcoinTreasuries.net, and BitMEX Research. Data as of August 27, 2024.

Note: Values may not add to total due to rounding.

(1) "Inactive" refers to bitcoin that has not been moved for five or more years.

(2) Psuedonymous creator of bitcoin.



Bitcoin Demand From U.S. Spot ETPs vs. New Supply



Bitcoin Purchased by U.S. Spot ETPs

314,299

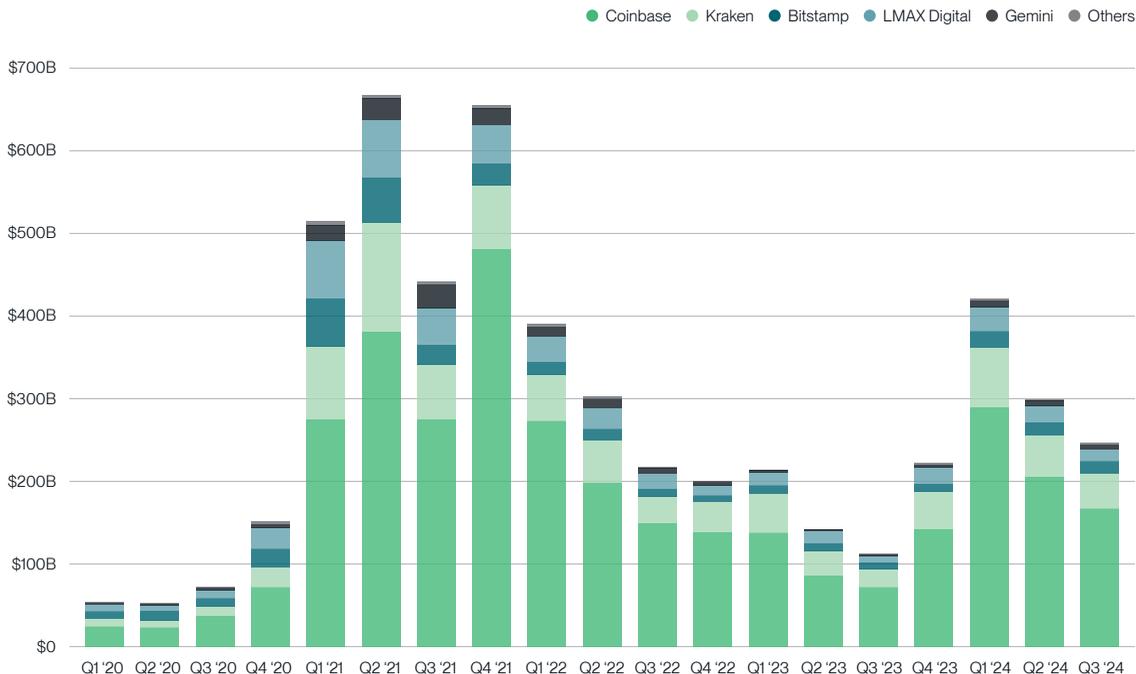


New Bitcoin Supply Since U.S. Spot ETP Launch

166,103

Source: Bitwise Asset Management with data from Coin Metrics and Bloomberg. Data from January 11 to September 30, 2024.

Spot Trading Volume on Centralized Exchanges

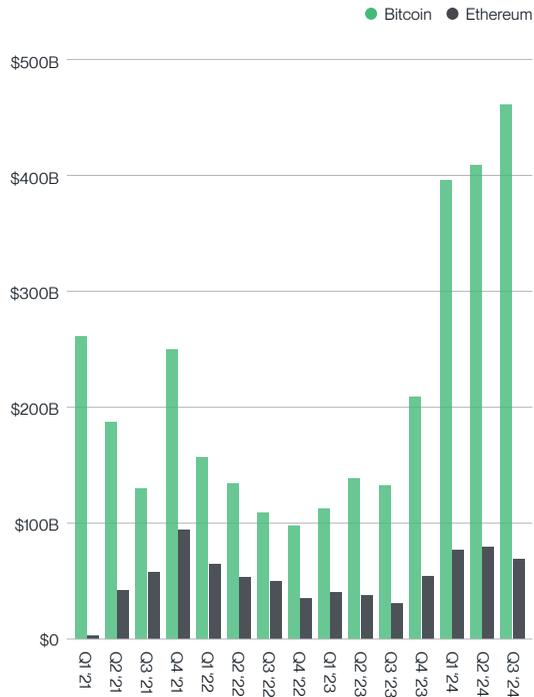


Source: Bitwise Asset Management with data from The Block. Data from Q1 2020 to Q3 2024.

Note: "Others" includes bitFlyer and itBit. "Centralized Exchanges" refers to venues that meet the criteria for "Eligible Crypto Asset Trading Venues" per the Bitwise Crypto Asset Index Methodology. The methodology is available at <https://bitwiseinvestments.com/indexes/methodology>. "Spot trading" refers to trading in a financial market in which financial instruments are traded for immediate delivery.

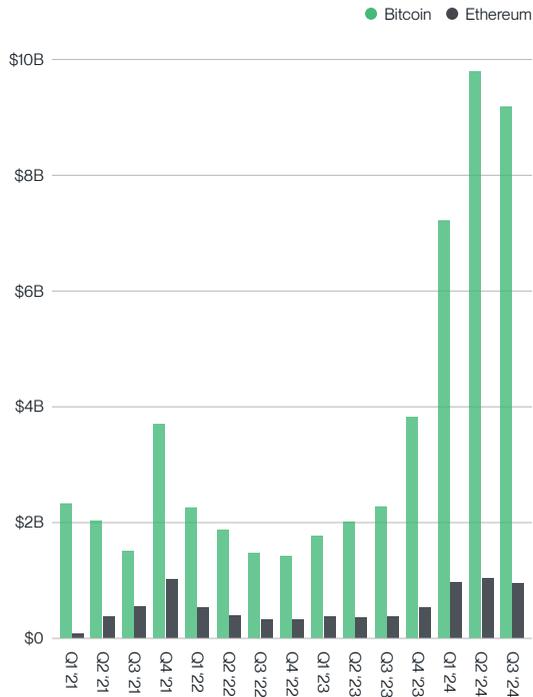
CME Bitcoin and Ethereum Futures

Total Volume



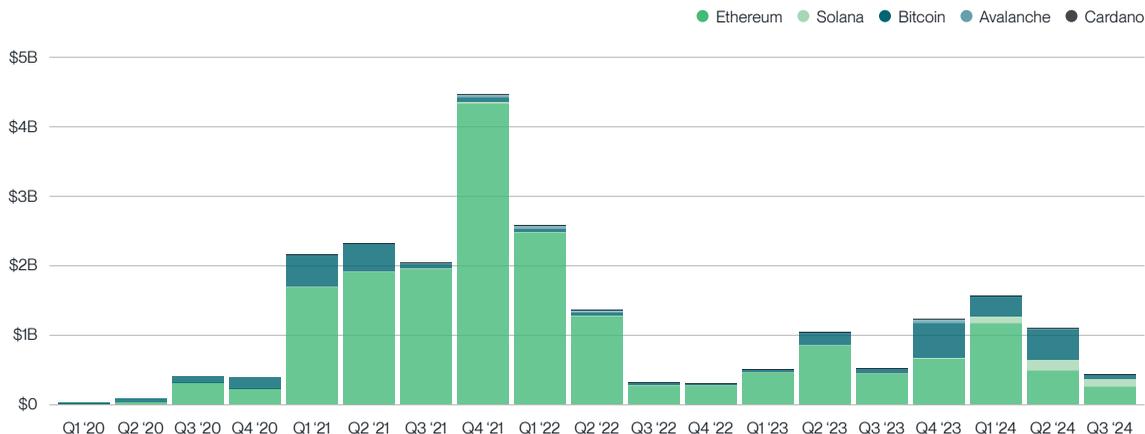
Source: Bitwise Asset Management with data from The Block and CoinGlass. Data from Q1 2021 to Q3 2024.

Average Open Interest



Source: Bitwise Asset Management with data from The Block and CoinGlass. Data from Q1 2021 to Q3 2024.

Revenue: Leading Blockchains

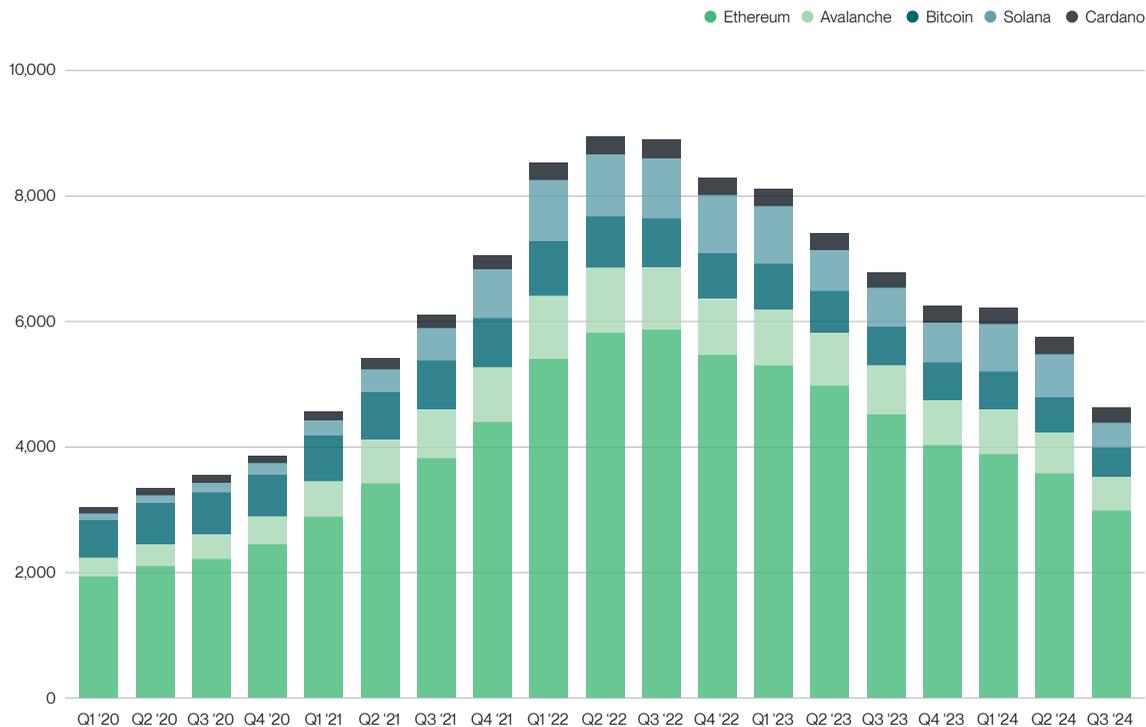


— USD millions —

	2019	2020	2021	2022	2023	2024 (YTD)
Ethereum	\$35	\$596	\$9,911	\$4,299	\$2,406	\$1,927
Bitcoin	155	324	1,017	142	796	797
Solana	—	<1	28	26	25	358
Avalanche	—	—	41	94	65	13
Cardano	—	—	8	8	3	3

Source: Bitwise Asset Management with data from Token Terminal. Chart data from Q1 2020 to Q3 2024. Table data from January 1, 2019 to September 30, 2024.

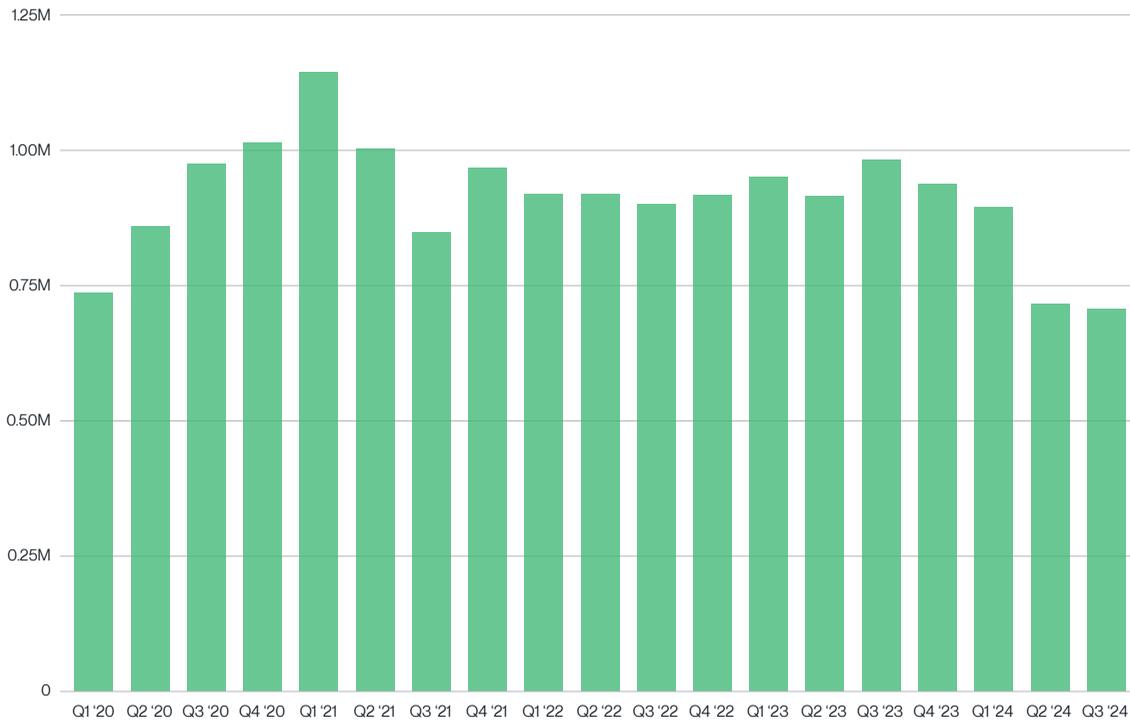
Average Developer Count



Source: Bitwise Asset Management with data from Artemis and Electric Capital Crypto Ecosystems Mapping. Data from Q1 2020 to Q3 2024.

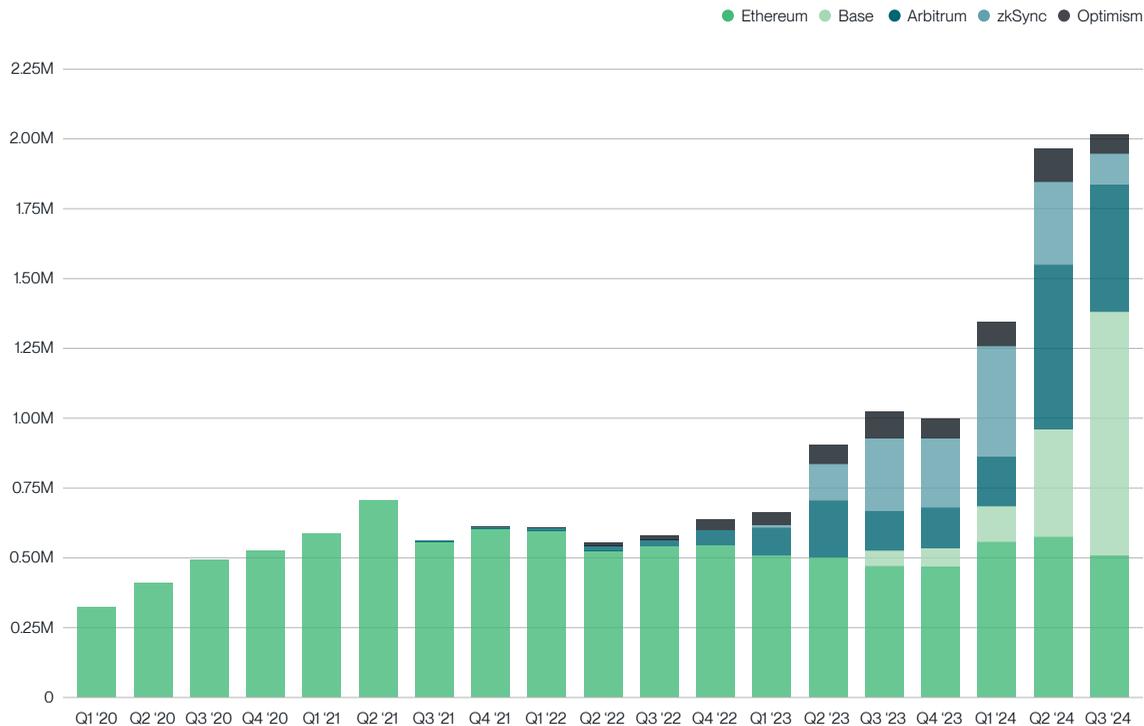
Note: "Average Developer Count" includes developers contributing to Layer 1 blockchains as well as Layer 2s and crypto applications for which data is available from Artemis.

Average Daily Active Addresses: Bitcoin



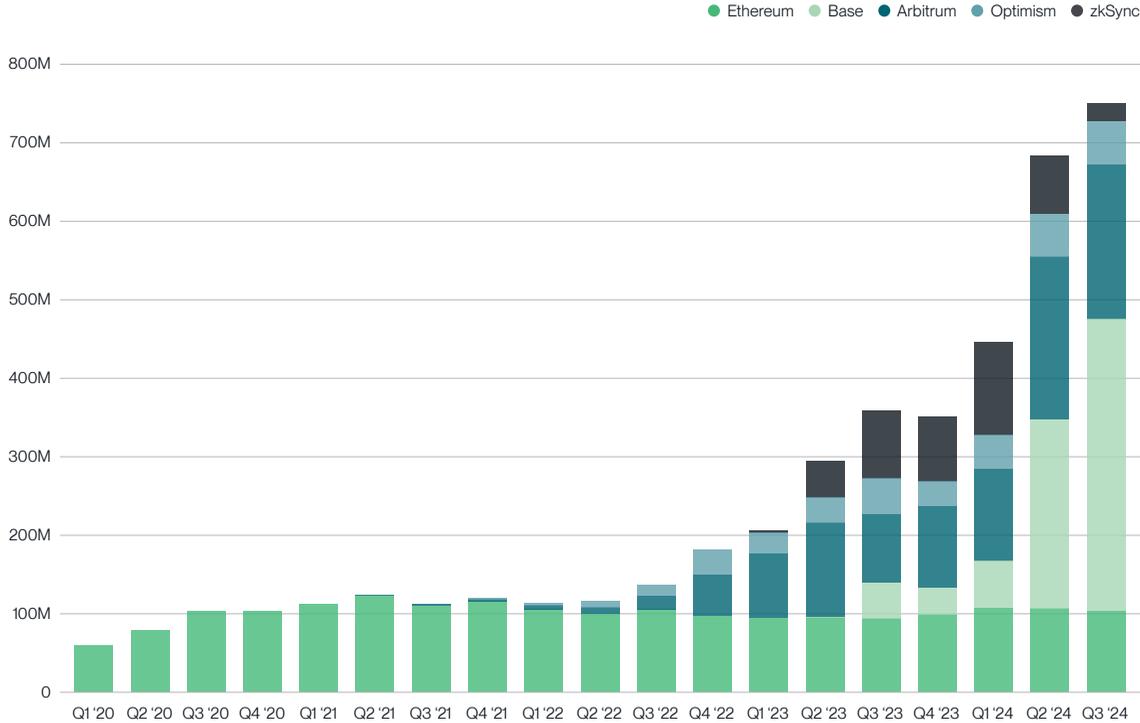
Source: Bitwise Asset Management with data from Coin Metrics. Data from Q1 2020 to Q3 2024.

Average Daily Active Addresses: Ethereum and Layer 2s



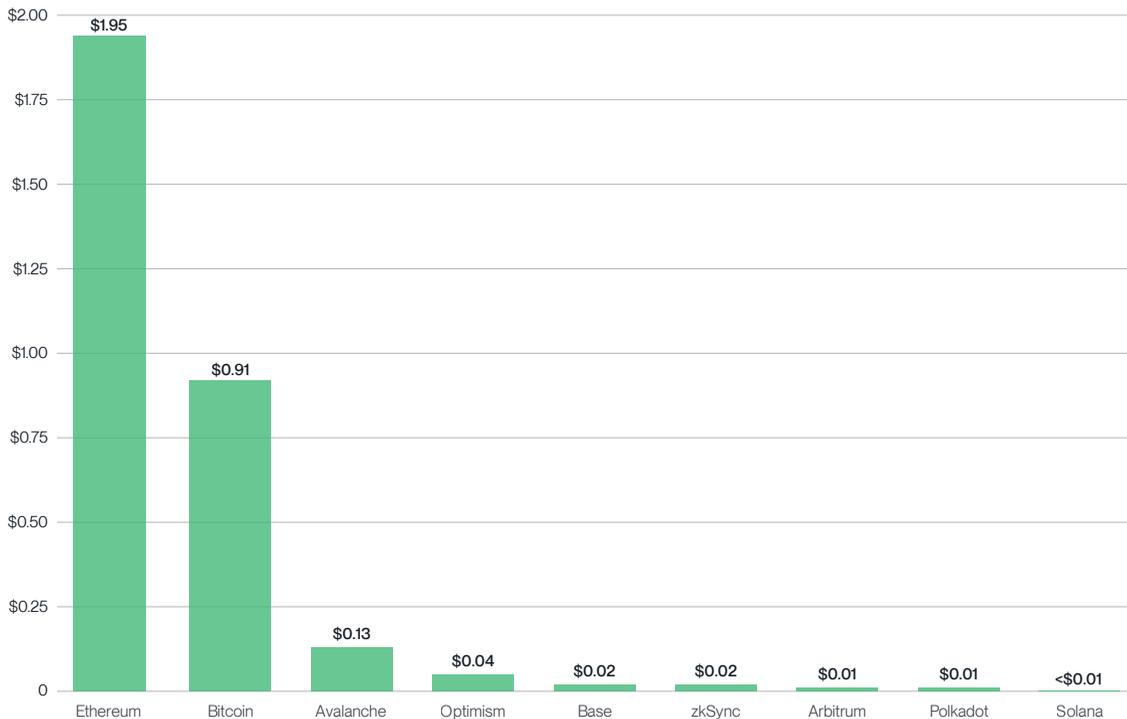
Source: Bitwise Asset Management with data from Coin Metrics and Token Terminal. Data from Q1 2020 to Q3 2024.

Transaction Count: Ethereum and Layer 2s



Source: Bitwise Asset Management with data from Token Terminal. Data from Q1 2020 to Q3 2024.

Median Fee Per Transaction: Leading Blockchains and Layer 2s



Source: Bitwise Asset Management with data from Token Terminal. Data from July 1 to September 30, 2024.

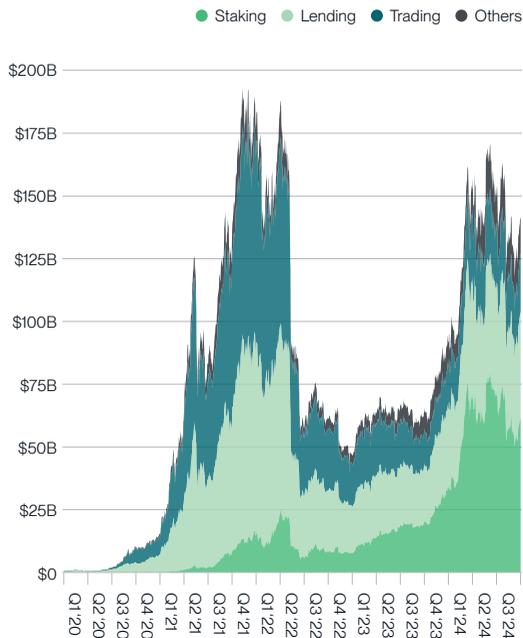
Top 10 Crypto Applications by Revenue

PROTOCOL	DESCRIPTION	12-MONTH REVENUE (USD MILLIONS) ⁽¹⁾
Lido	Leading staking-as-a-service app	\$969.4
Uniswap	Leading decentralized crypto exchange	936.0
Flashbots	Infrastructure app for mitigating MEV	631.0
Aave	Largest lending and borrowing application in DeFi	339.7
Jito	Leading Solana-based staking-as-a-service app	248.4
GMX	Leading crypto derivatives exchange	185.7
PancakeSwap	Popular decentralized crypto exchange	171.7
Aerodrome	Popular decentralized exchange on Base	139.1
Convex	Popular staking and yield-farming protocol	83.4
Compound	Popular lending and borrowing application in DeFi	71.0

Source: Bitwise Asset Management with data from Token Terminal. Data from October 1, 2023 to September 30, 2024.

(1) Revenue is made up of the total fees paid by users.

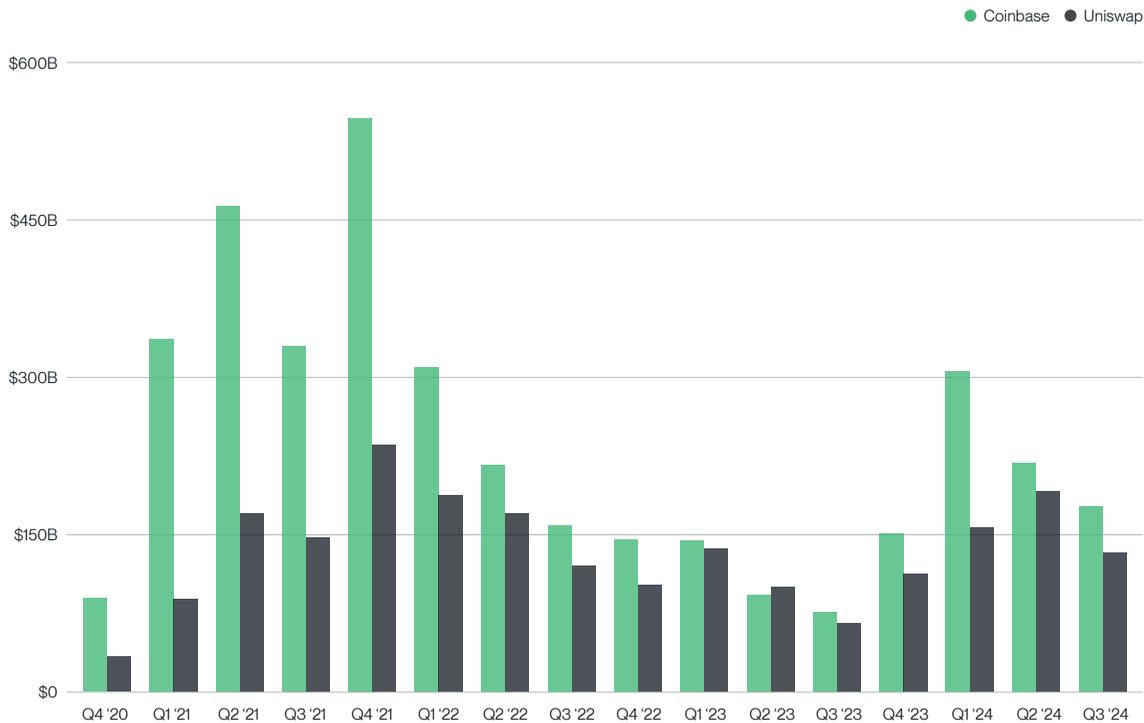
Total Value Locked in DeFi by Sector



Source: Bitwise Asset Management with data from The Block and DeFi Llama. Data from Q1 2020 to Q3 2024.

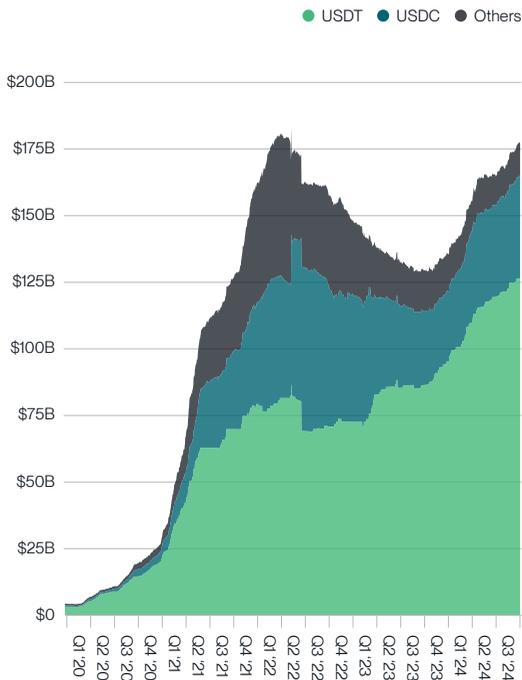
Note: "Total Value Locked" (TVL) is a measure of the total amount of capital deployed in DeFi applications. "Staking" includes liquid staking, liquid restaking, and restaking.

Trading Volume: Coinbase vs. Uniswap



Source: Bitwise Asset Management with data from The Block, The Graph, and CoinGecko. Data from Q4 2020 to Q3 2024.

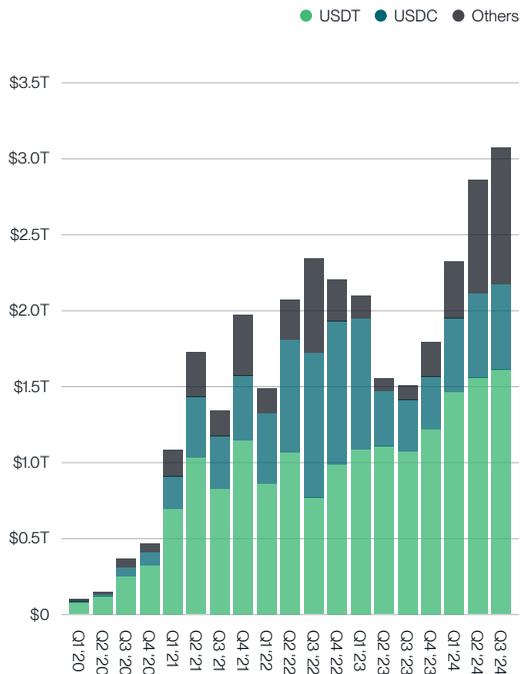
Stablecoin Market Capitalization



Source: Bitwise Asset Management with data from The Block, DeFi Llama, and Coin Metrics. Data from Q1 2020 to Q3 2024.

Note: "Others" includes BUSD, crvUSD, DAI, FDUSD, FEI, FRAX, GHO, GUSD, HUSD, LUSD, MIM, PYUSD, TUSD, USDD, USDP, and UST.

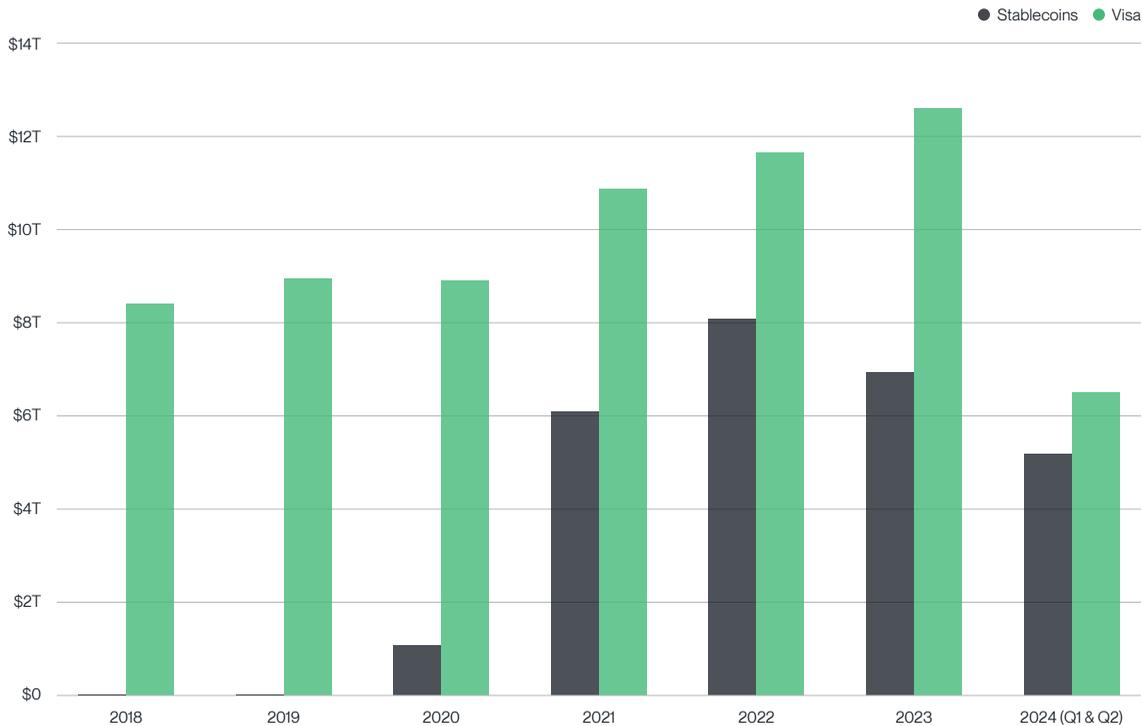
Stablecoin Transactions



Source: Bitwise Asset Management with data from Coin Metrics. Data from Q1 2020 to Q3 2024.

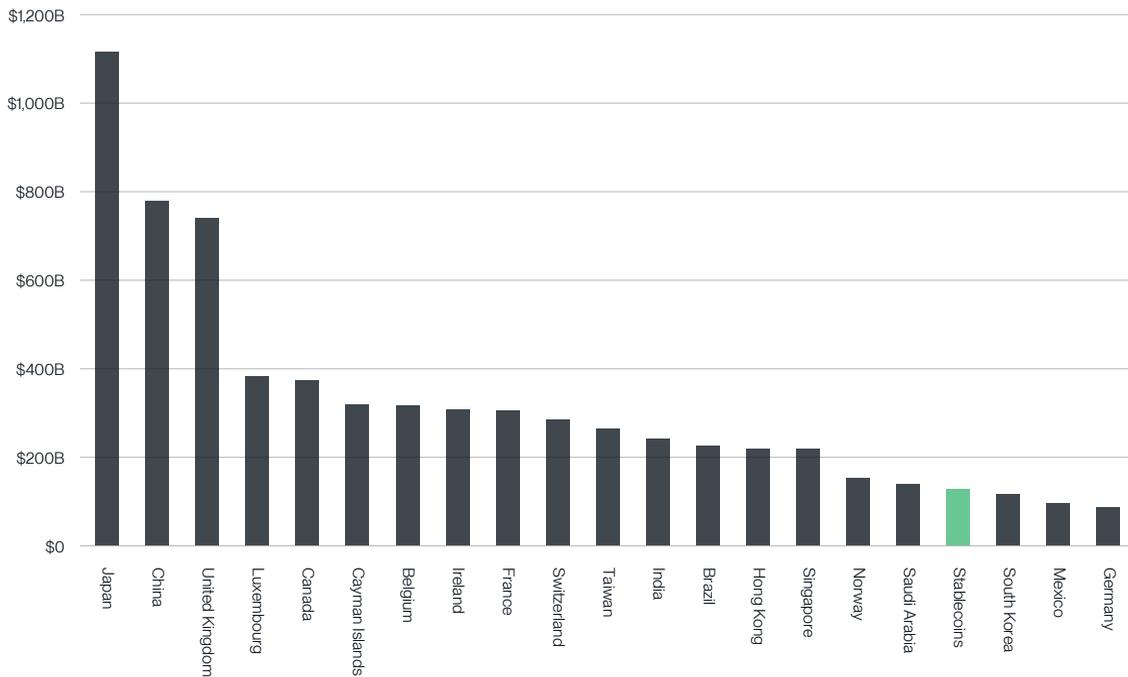
Note: "Others" includes BUSD, DAI, FDUSD, GUSD, HUSD, LUSD, PYUSD, TUSD, USDK, and USDP.

Volume: Stablecoin Transactions vs. Visa Payments



Source: Bitwise Asset Management with data from Coin Metrics and Visa. Data from January 1, 2018 to June 30, 2024 (most recently reported data for Visa).

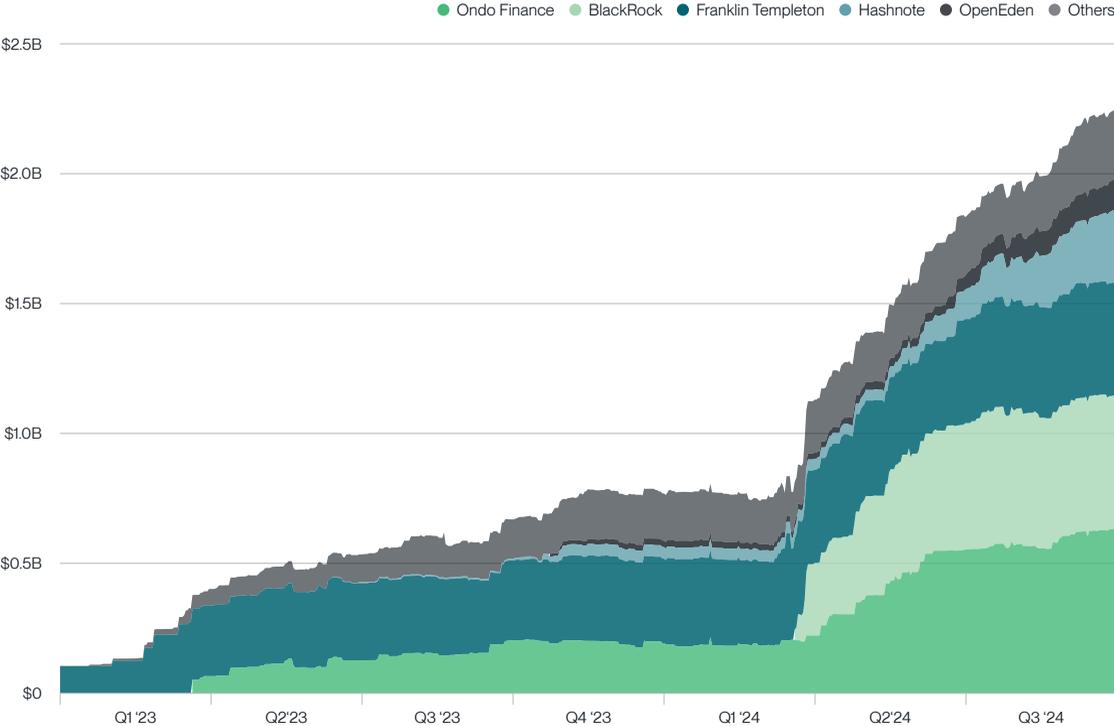
Holders of U.S. Treasuries: Stablecoins vs. Top Foreign Holders



Source: Bitwise Asset Management with data from the U.S. Department of the Treasury and company reports. Data as of June 30, 2024.

Note: This table was inspired by a presentation by Nic Carter, a Founding Partner at Castle Island Ventures. "Stablecoins" refers to the top five stablecoins by market capitalization for which reserve attestation reports were available as of June 30, 2024 (USDT, USDC, FDUSD, PYUSD, and GUSD). "U.S. Treasury" holdings include U.S. Treasury bills, reverse repurchase agreements, and money market funds.

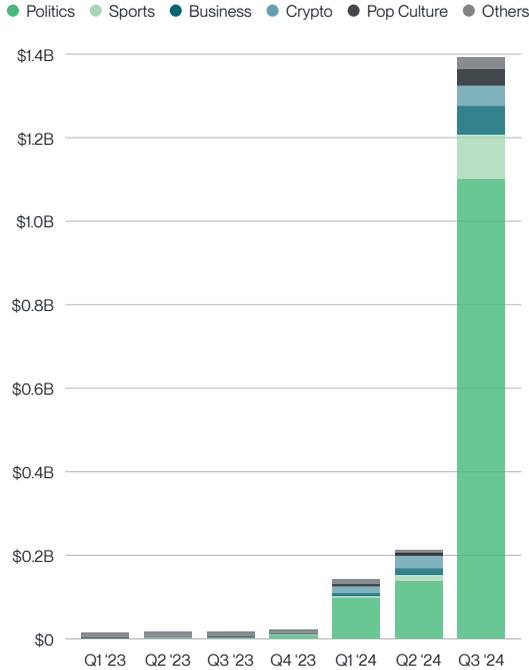
Tokenized U.S. Treasuries



Source: Bitwise Asset Management with data from RWA.xyz. Data from January 1, 2023 to September 30, 2024.
 Note: Stablecoin issuers such as Circle and Tether are intentionally omitted.

Polymarket Volume and Open Interest

Volume by Category



Source: Bitwise Asset Management with data from Blockworks Research. Data from January 1, 2023 to September 30, 2024.

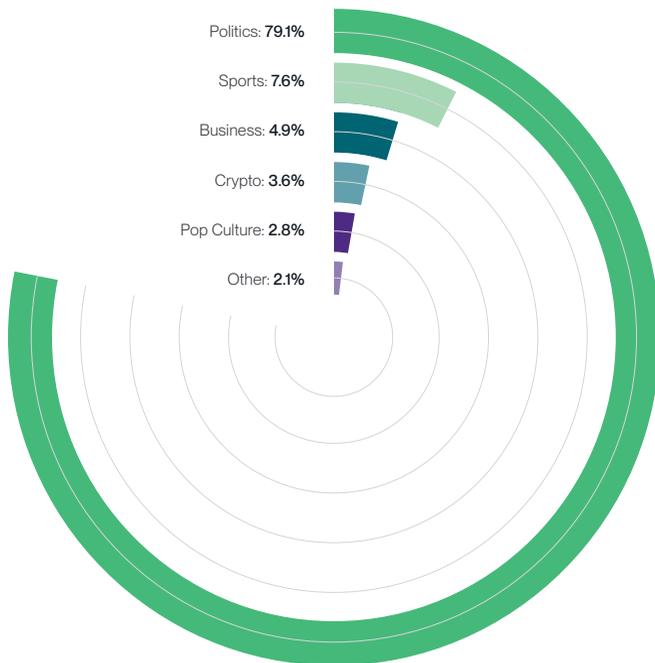
Open Interest



Source: Bitwise Asset Management with data from Blockworks Research. Data from January 1, 2023 to September 30, 2024.

Polymarket Markets

Volume Share by Category



Source: Bitwise Asset Management with data from Blockworks Research. Data as of September 30, 2024.

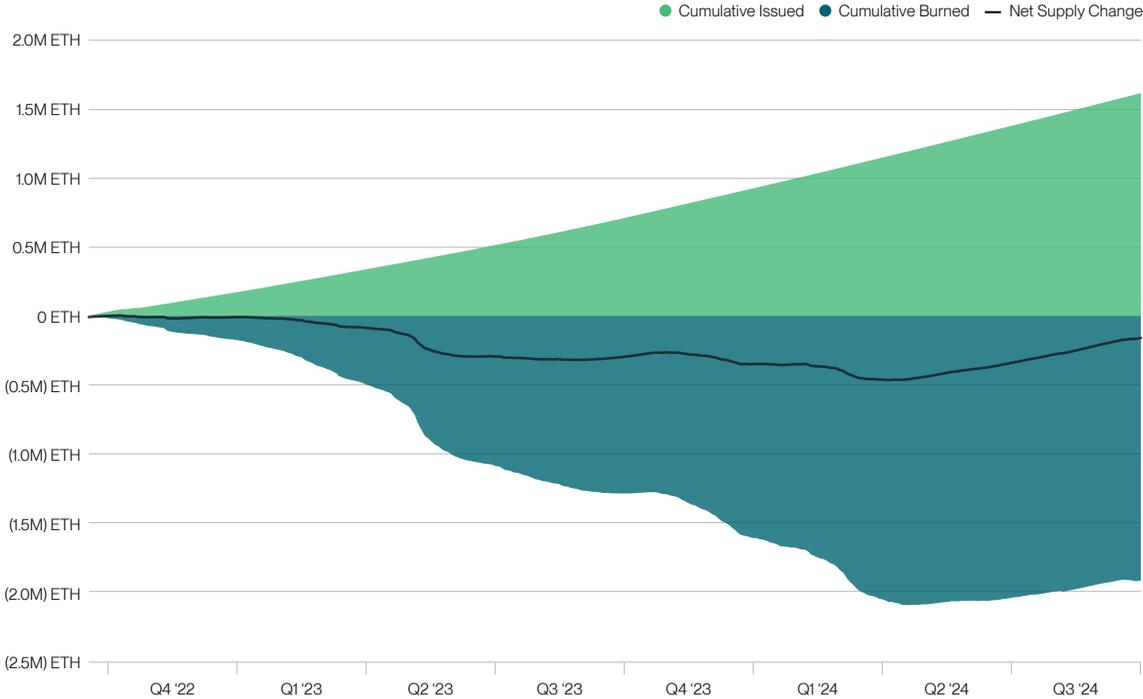
Note: Values may not add to total due to rounding.

Top Five Markets

MARKET NAME	Q3 '24 VOLUME (USD MILLIONS)
Will Donald Trump win the 2024 U.S. presidential election?	\$396.3
Will Joe Biden win the 2024 Democratic presidential nomination?	131.5
Will Donald Trump win the popular vote in the 2024 presidential election?	69.6
Will Kamala Harris be the 2024 Democratic VP nominee?	48.6
Will the Fed decrease interest rates by 50 bps after the September 2024 meeting?	42.9

Source: Bitwise Asset Management with data from Blockworks Research. Data as of September 30, 2024.

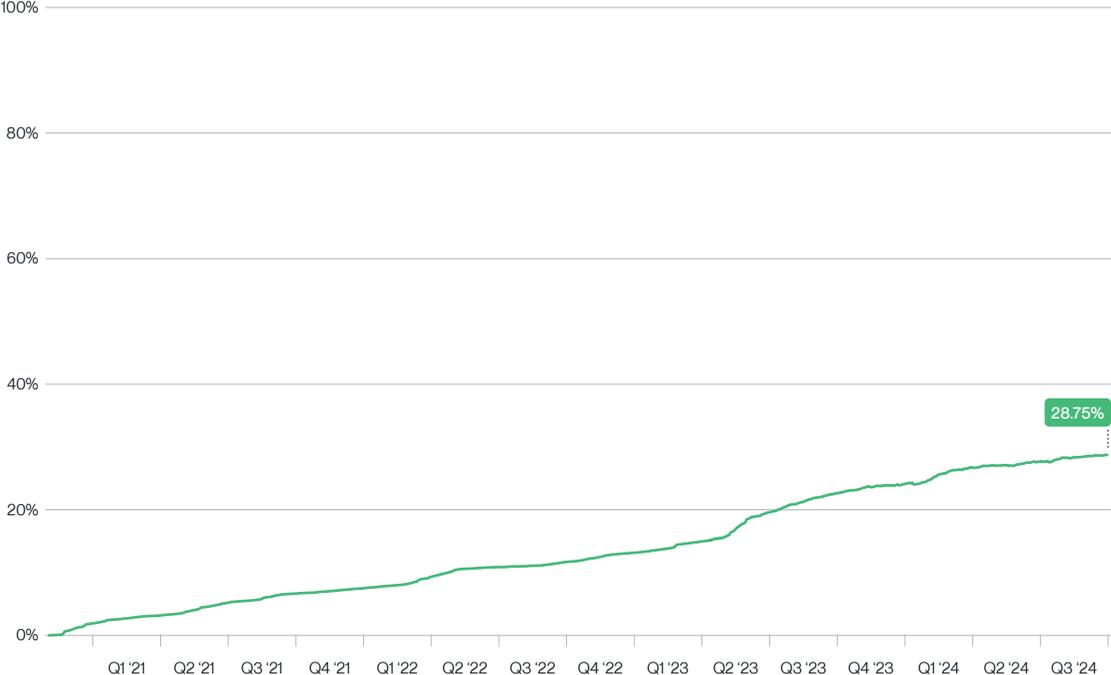
Ethereum Supply Since “The Merge”: ETH Issued vs. Burned



Source: Bitwise Asset Management with data from Coin Metrics and Ultra Sound Money. Data from September 15, 2022 to September 30, 2024.

Note: The Merge (Ethereum’s transition to proof-of-stake validation) took place on September 15, 2022. As of September 30, 2024, the total supply of Ethereum was 120,366,542 ETH.

Percentage of Ethereum Supply Staked

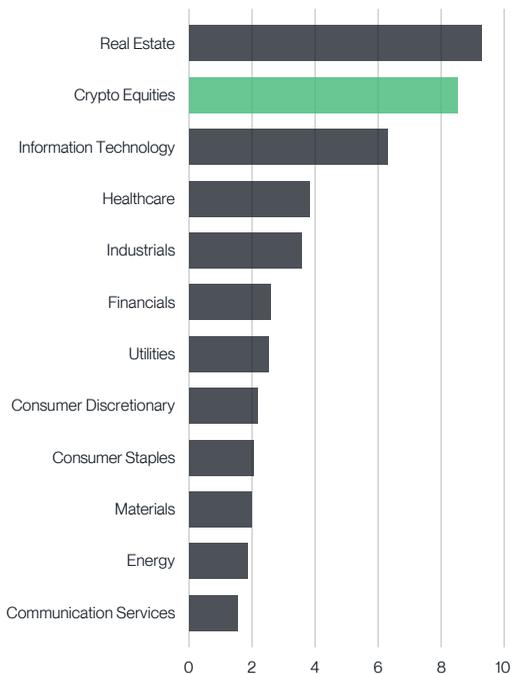


Source: Bitwise Asset Management with data from Coin Metrics and The Block. Data from November 3, 2020 to September 30, 2024.

Note: Staking involves making a financial commitment to a blockchain in its native asset to secure the network, typically in exchange for yield. Staking typically requires the owner to lock up the staked asset for a period of time. The "Shapella" upgrade in April 2023 allowed staked ETH to be withdrawn.

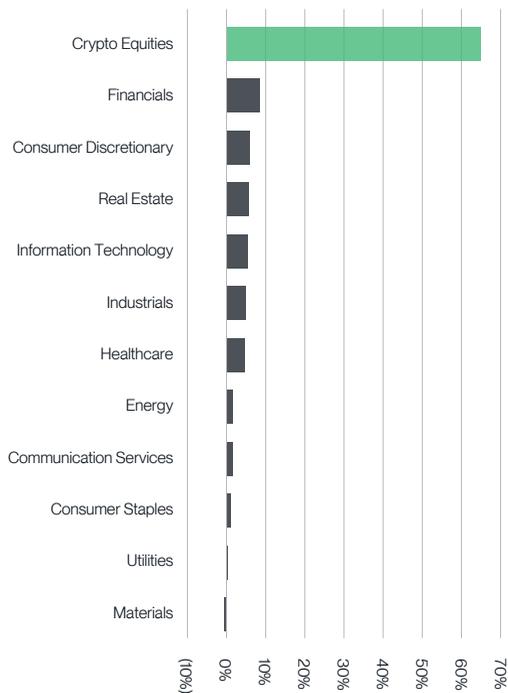
Crypto Equities vs. Other Industries

Price-to-Sales Ratio



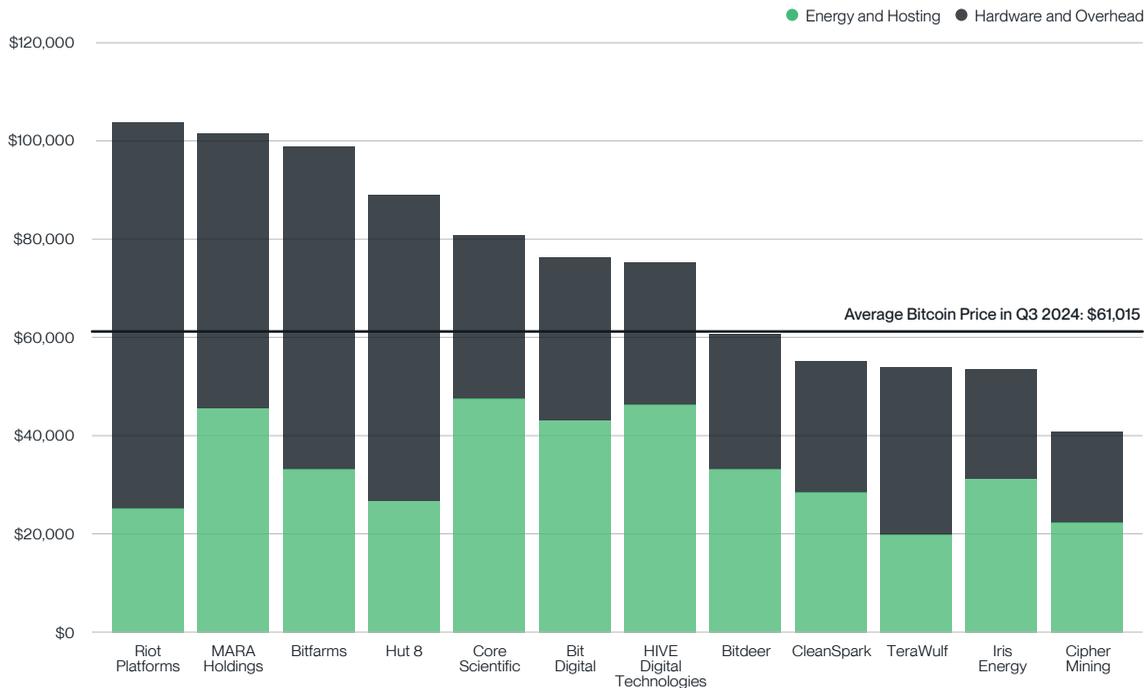
Source: Bitwise Asset Management with data from Bloomberg. Calculations are based on trailing 12-month sales as of June 30, 2024. Price data as of September 30, 2024.

2024 Estimated Full-Year Revenue Growth



Source: Bitwise Asset Management with data from Bloomberg. Data as of September 30, 2024.

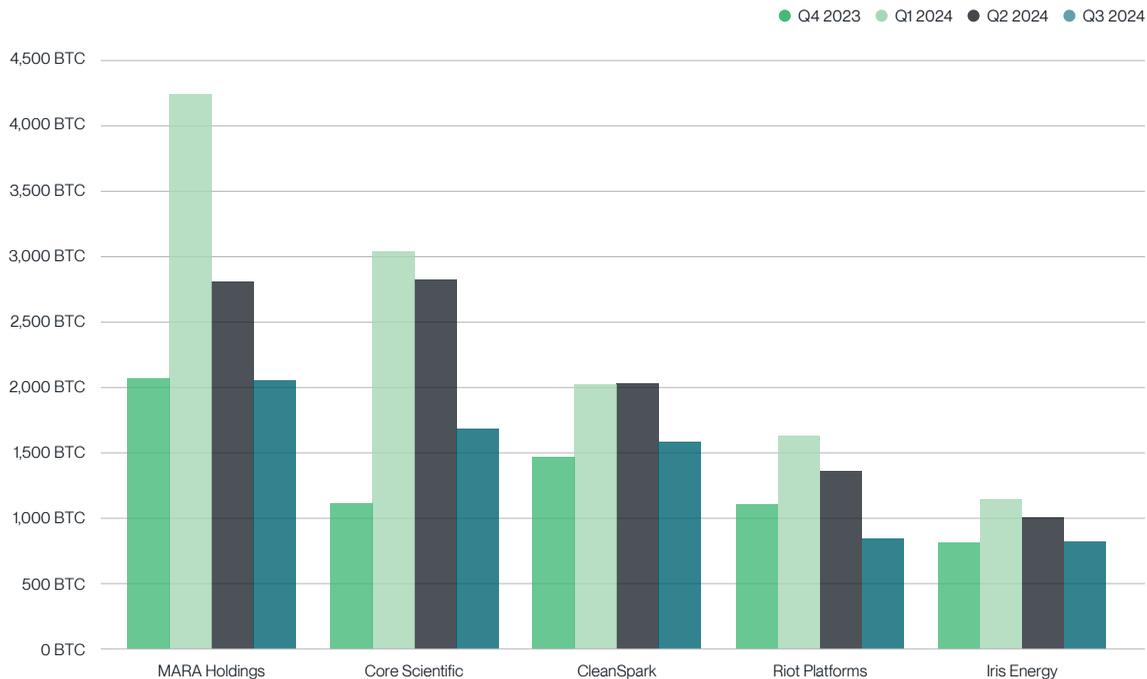
Mining Cost per Bitcoin for Crypto Miners



Source: Bitwise Asset Management with data from company filings. Chart reflects the most recent available data for the period ending June 30, 2024.

Note: "Energy and hosting" represents the cost of electricity and hosting that a miner incurs to produce one bitcoin. "Hardware and overhead" also includes depreciation expenses, such as the cost of ASICs and depreciation of hosting facilities for machines.

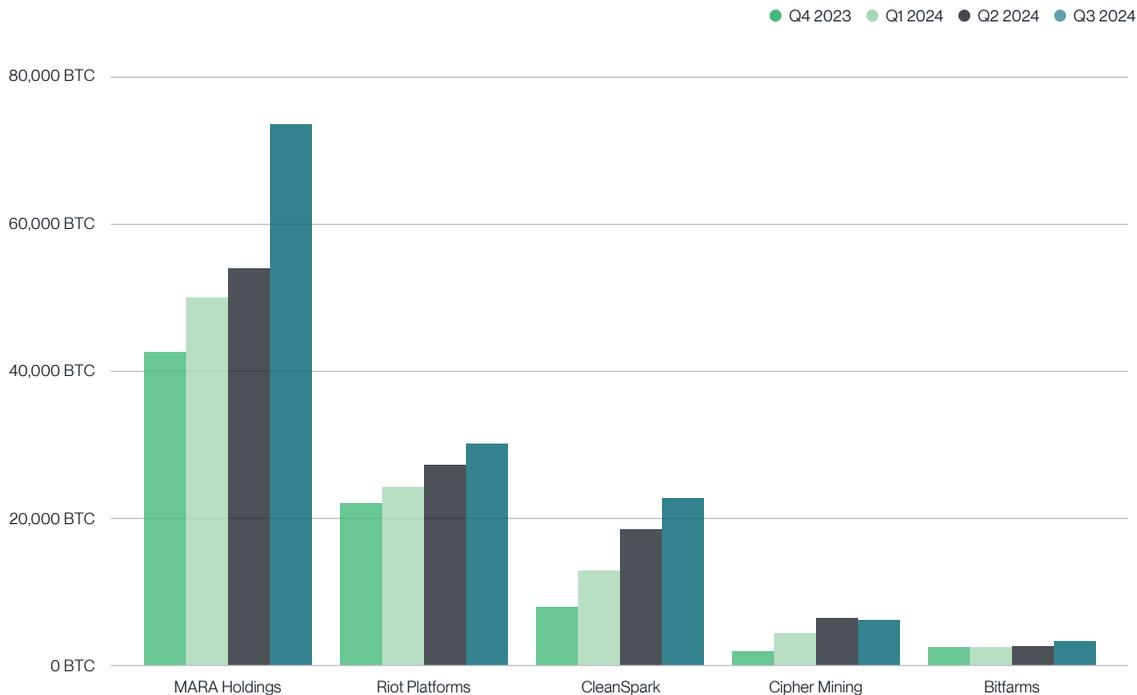
Bitcoin Production by Top Five Miners



Source: Bitwise Asset Management with data from company filings. Data from Q4 2023 to Q3 2024.

Note: "Top five miners" refers to the top five miners by bitcoin production in the most recent quarter.

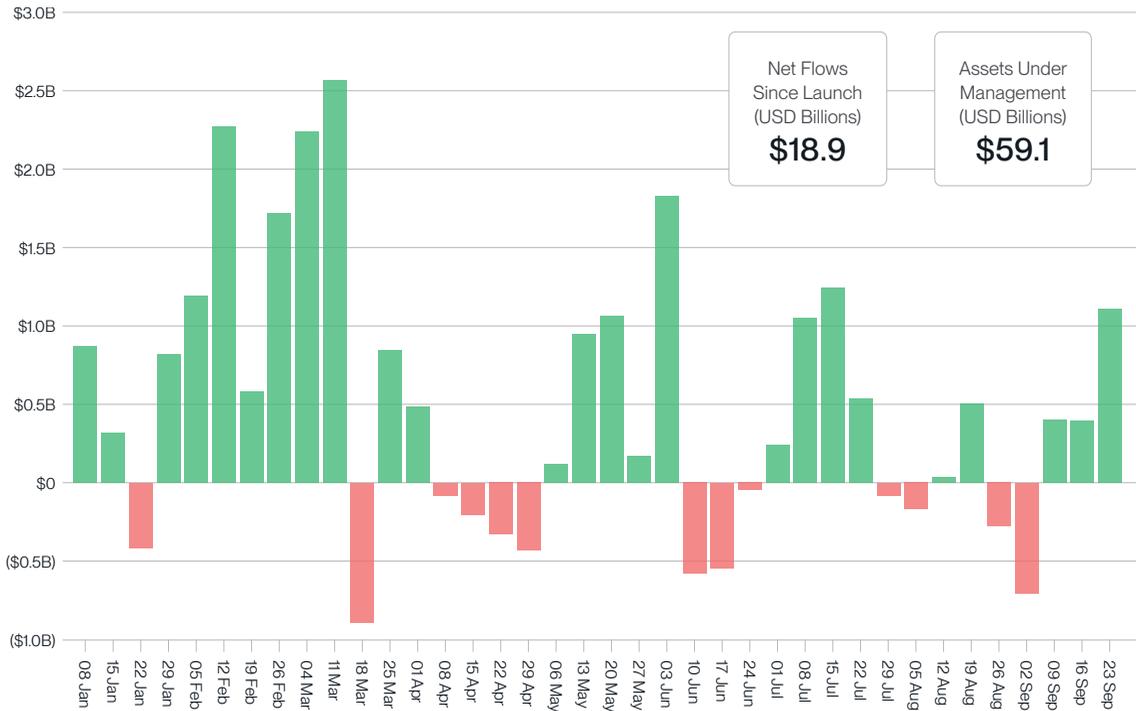
Bitcoin Owned by Top Five Miners



Source: Bitwise Asset Management with data from company filings. Data from Q4 2023 to Q3 2024.

Note: "Top five miners" refers to the top five miners by bitcoin production in the most recent quarter that hold bitcoin on their balance sheets. Core Scientific and Iris Energy are two of the top five miners by bitcoin production, but currently do not hold bitcoin on their balance sheets. Therefore, the next two miners by bitcoin production, Cipher Mining and Bitfarms, are included here instead.

U.S. Spot Bitcoin ETPs: Weekly Net Flows



Source: Bitwise Asset Management with data from Bloomberg. Chart data from January 11 to September 27, 2024. Inset data as of September 30, 2024.

U.S. Spot Bitcoin ETP Holders

By Category

CATEGORY	PERCENTAGE OF SPOT BITCOIN ETP AUM
Hedge Fund	38.05%
Investment Advisor	28.75%
Brokerage	19.10%
Other	10.35%
Private Equity	1.93%
Pension Fund	1.02%
Bank	0.50%
Family Office/Trust	0.29%
Insurance Company	0.01%
Venture Capital	0.01%

Source: Bitwise Asset Management with data from Bloomberg. Data as of June 30, 2024.

Top 10 Holders

INSTITUTION	MARKET VALUE OF HOLDINGS (USD MILLIONS)
Millennium Management	\$1,145
Susquehanna International Group	913
Horizon Kinetics Asset Management	819
Jane Street	721
Capula Management	464
Goldman Sachs	419
Avenir Tech	383
Schonfeld Strategic Advisors	363
Morgan Stanley	214
Boothbay Fund Management	214

Source: Bitwise Asset Management with data from Whale Wisdom. Data as of June 30, 2024.

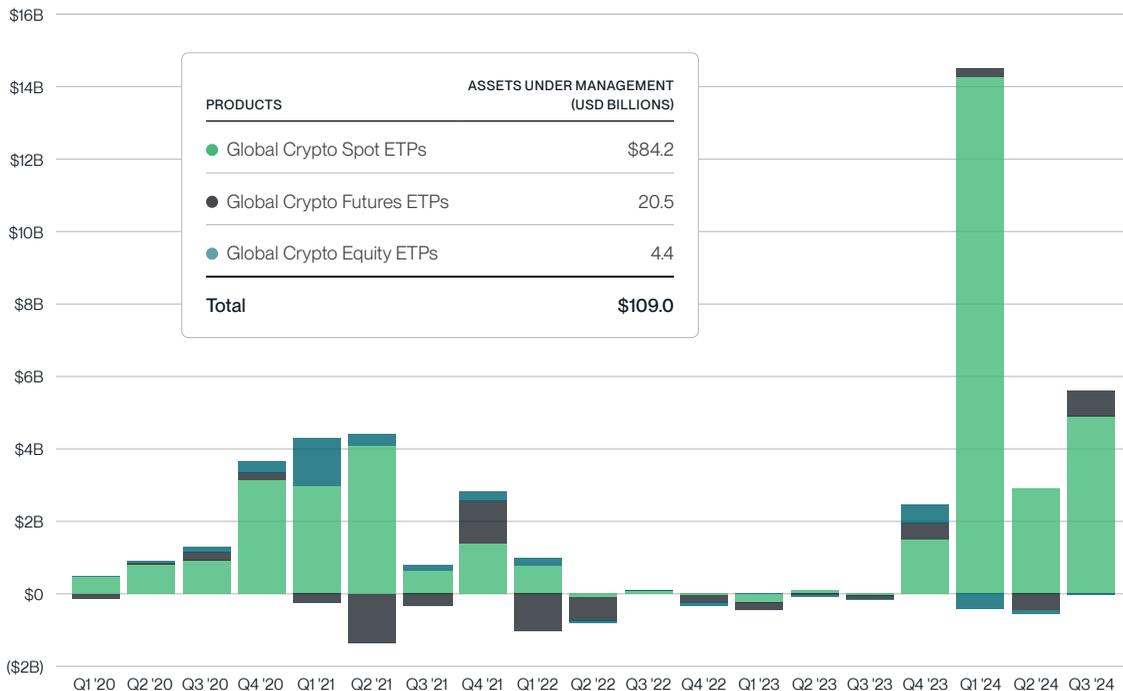
U.S. Spot Ethereum ETPs: Weekly Net Flows



Source: Bitwise Asset Management with data from Bloomberg. Chart data from July 24 to September 27, 2024. Inset data as of September 30, 2024.

Global Crypto Exchange-Traded Products: Net Flows

By Product

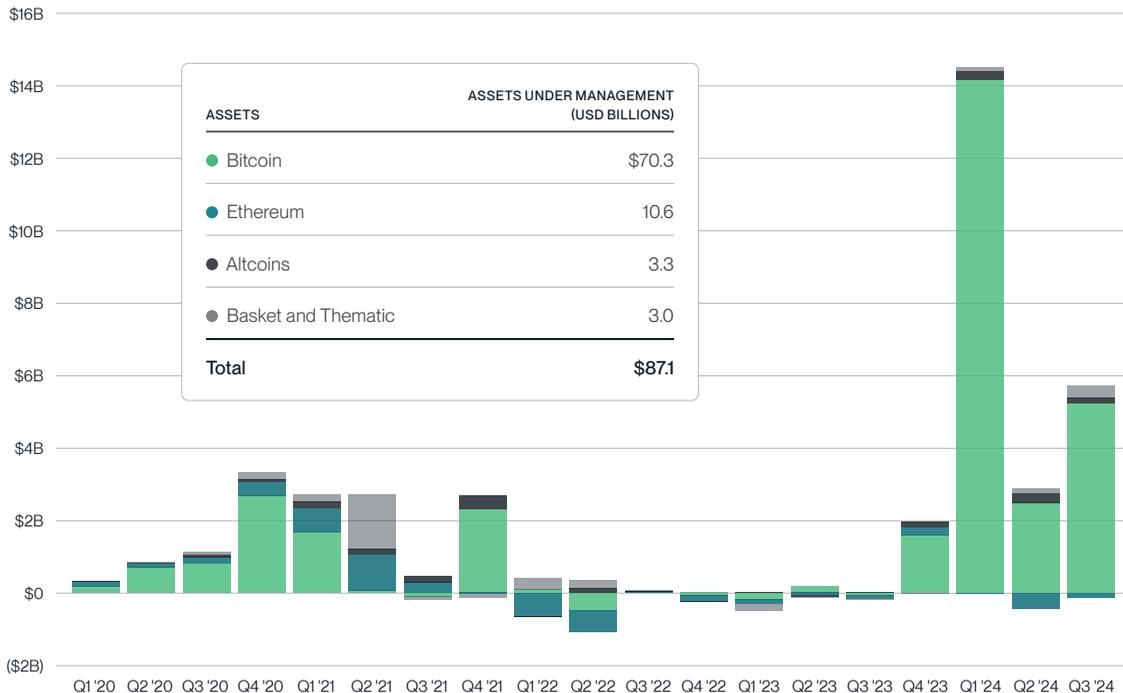


Source: Bitwise Asset Management with data from Bloomberg and fund documents. Chart data from Q1 2020 to Q3 2024. Table data as of September 30, 2024.

Note: Values in table may not add to total due to rounding.

Global Crypto Exchange-Traded Products: Net Flows

By Asset

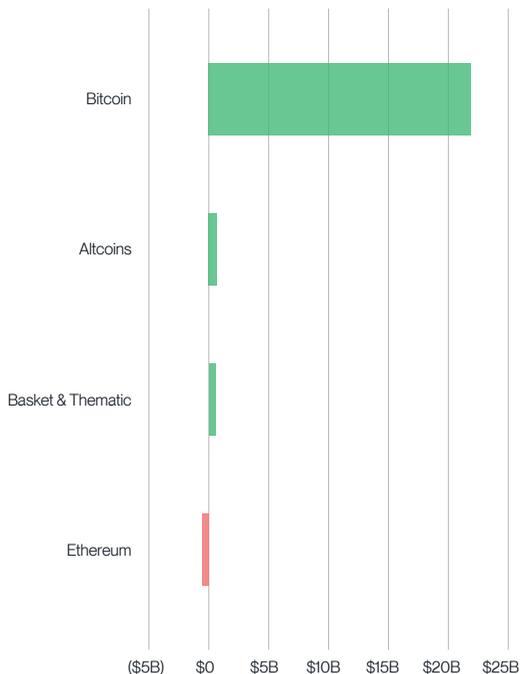


Source: Bitwise Asset Management with data from Bloomberg and fund documents. Chart data from Q1 2020 to Q3 2024. Table data as of September 30, 2024.

Note: "Altcoins" includes all crypto assets for which data is available, excluding Bitcoin and Ethereum. Values in table may not add to total due to rounding.

Global Crypto Exchange Traded Products: YTD Net Flows

By Asset



Source: Bitwise Asset Management with data from Bloomberg. Data from December 31, 2023 to September 30, 2024.

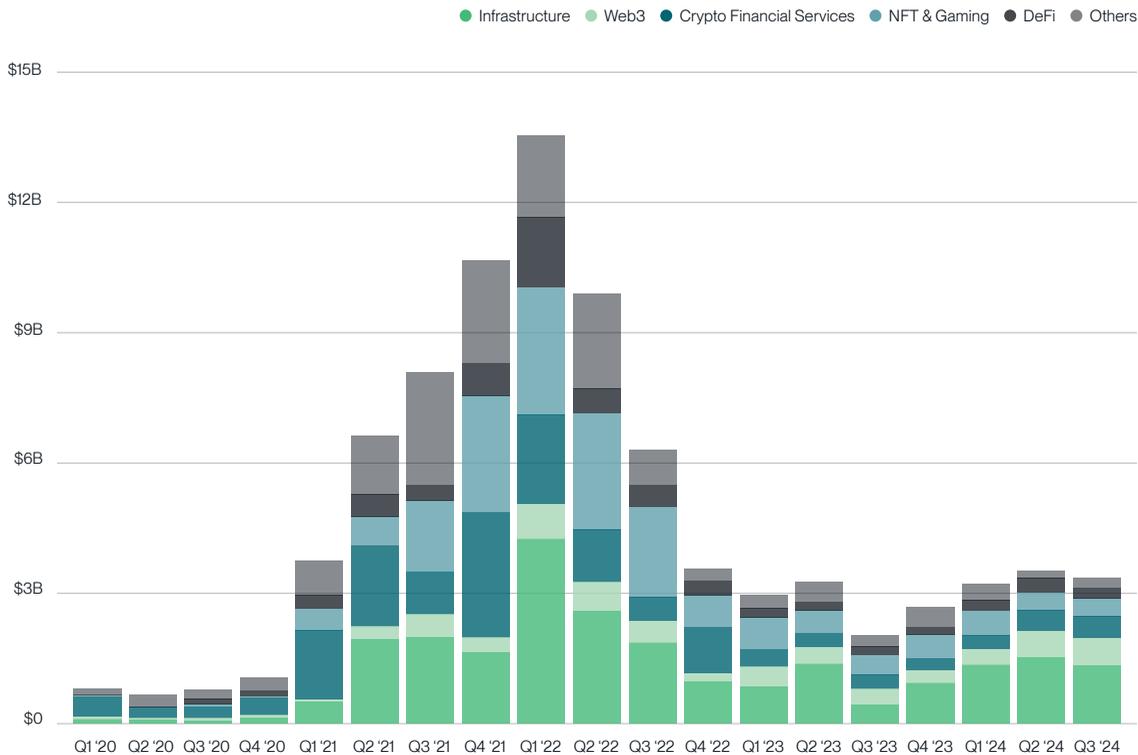
Note: "Altcoins" includes all crypto assets for which data is available, excluding Bitcoin and Ethereum.

By Exchange Domicile



Source: Bitwise Asset Management with data from Bloomberg. Data from December 31, 2023 to September 30, 2024.

Crypto Venture Funding



Source: Bitwise Asset Management with data from The Block. Data from Q1 2020 to Q3 2024.

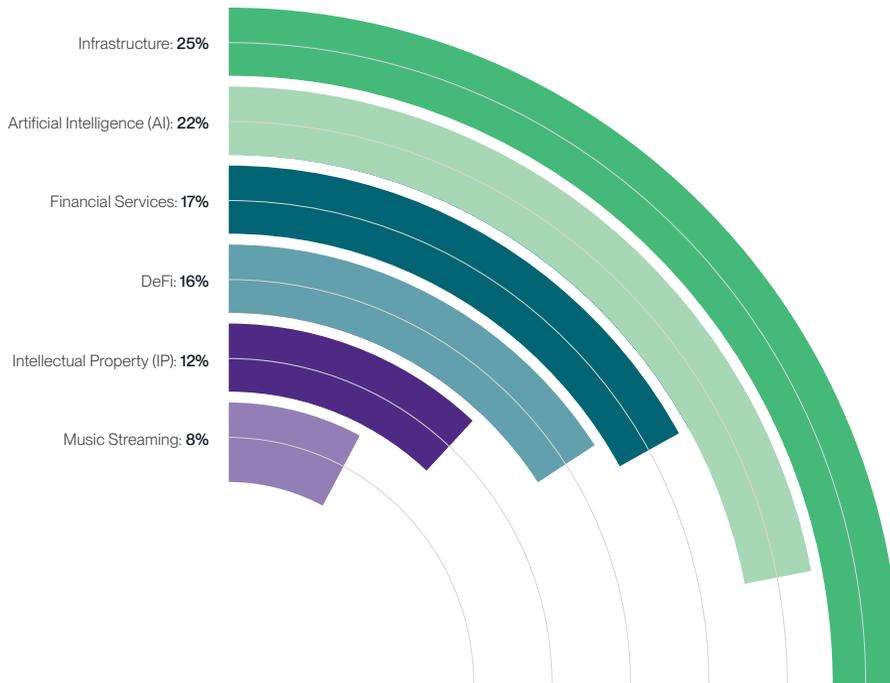
Top Ten Venture Funding Deals in Q3

COMPANY NAME	AMOUNT (USD MILLIONS)	LEAD INVESTOR	CATEGORY	DESCRIPTION
Celestia	\$100.0	Bain Capital Ventures	Infrastructure	Celestia is a data availability infrastructure protocol that aims to address the scalability issues of traditional blockchains.
Sentient	85.0	Multiple	Artificial Intelligence (AI)	Sentient is an open-source AI and AGI development platform that aims to enable AI developers to monetize their open-source models and data.
Story Protocol	80.0	a16z	Intellectual Property (IP)	Story Protocol helps creators register their work, set usage rules, and ensure they get credit and compensation when their work is used or modified.
Infinex	65.3	Multiple	Infrastructure	Infinex focuses on creating a secure and user-friendly platform for various crypto-based financial services, including trading and digital wallets.
Partior	60.0	Peak XV Partners	Financial Services	Partior is a platform developed by major banks (including JPMorgan and Standard Chartered) for clearing and settling cross-border transactions.
CETI AI	60.0	BCII Enterprices	Artificial Intelligence (AI)	CETI AI aims to decentralize artificial intelligence, providing infrastructure for developers to enhance AI capabilities across various industries.
Chaos Labs	55.0	Haun Ventures	DeFi	Chaos Labs provides automated risk management for protocols, focusing on securing them against economic vulnerabilities and market manipulation.
Morpho Labs	50.0	Ribbit Capital	DeFi	Morpho Labs is a R&D company focused on creating decentralized, open-source protocols for more efficient and secure lending within the DeFi ecosystem.
Tune.FM	50.0	GEM Digital Limited	Music Streaming	Tune.FM is a decentralized music streaming platform that allows artists to monetize their music directly from fans through a tokenized system.
SDAX	50.0	Muscat Precious Metals	Financial Services	SDAX is a digital-asset exchange and tokenization platform offering fractionalized investment opportunities in private equity, private credit, real estate, art, and other alternative investments.

Source: Bitwise Asset Management with data from The Block. Data from Q3 2024.

Top Ten Venture Funding Deals in Q3

Sector Breakdown



Source: Bitwise Asset Management with data from The Block. Data from Q3 2024.

Historical Impact on a Traditional 60/40 Portfolio: Bitcoin

Portfolio Performance Metrics (Rebalanced Quarterly)

PORTFOLIO	CUMULATIVE RETURN	ANNUALIZED RETURN	ANNUALIZED VOLATILITY	SHARPE RATIO	MAXIMUM DRAWDOWN
Traditional 60/40 Portfolio	99.87%	6.67%	8.54%	0.496	22.07%
Traditional Portfolio + 1.0% Bitcoin	118.83%	7.58%	8.63%	0.593	22.73%
Traditional Portfolio + 2.5% Bitcoin	149.86%	8.92%	8.93%	0.720	23.72%
Traditional Portfolio + 5.0% Bitcoin	209.02%	11.10%	9.79%	0.874	25.35%
Traditional Portfolio + 10.0% Bitcoin	358.96%	15.27%	12.32%	1.025	28.53%

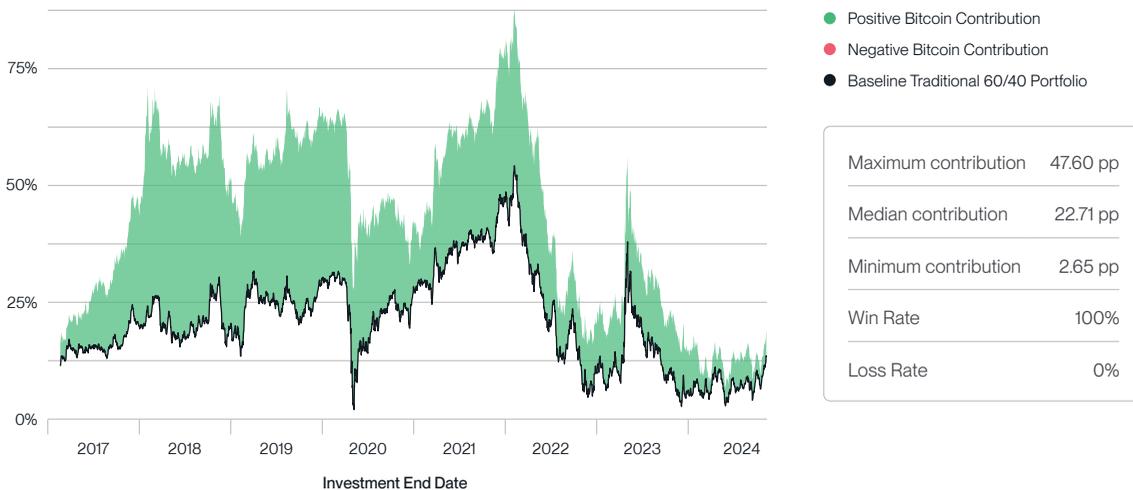
Source: Bitwise Asset Management with data from Bloomberg. Data from January 1, 2014 to September 30, 2024.

Note: Traditional Portfolio consists of 60% equities (represented by the FTSE Global All Cap Index) and 40% bonds (represented by the Bloomberg US Aggregate Bond Float Adjusted Index). For index definitions, **see p.67**. Not considering taxes nor transaction costs. Performance of individual crypto assets may differ significantly from the performance of bitcoin. The period before 2014 is excluded to better represent the experience of professional asset allocators in the U.S., as the first investable bitcoin fund launched in late 2013. For more details, please refer to our white paper "Bitcoin's Role in a Traditional Portfolio" published in August 2023 and available at <https://bitwiseinvestments.com/crypto-market-insights/bitcoins-role-in-a-traditional-portfolio>.

Past performance does not predict or guarantee future results. Nothing contained herein is intended to predict the performance of any investment. There can be no assurance that actual outcomes will match the assumptions or that actual returns will match any expected returns. Historical performance of sample portfolios has been generated and maximized with the benefit of hindsight. The returns do not represent the returns of an actual account and do not include the fees and expenses associated with buying, selling and holding funds or crypto assets. It is not possible to invest directly in an index. Performance information is provided for informational purposes only. Please see important disclosure information in this document.

Historical Impact on a Traditional 60/40 Portfolio: Bitcoin

Contribution of a 5% Bitcoin Allocation to a 60/40 Portfolio: 3-Year Rolling Cumulative Return (Rebalanced Quarterly)



Source: Bitwise Asset Management with data from Bloomberg. Data from January 1, 2014 to September 30, 2024.

Note: Traditional Portfolio consists of 60% equities (represented by the FTSE Global All Cap Index) and 40% bonds (represented by the Bloomberg US Aggregate Bond Float Adjusted Index). For index definitions, **see p.67**. Not considering taxes nor transaction costs. Performance of individual crypto assets may differ significantly from the performance of bitcoin. The period before 2014 is excluded to better represent the experience of professional asset allocators in the U.S., as the first investable bitcoin fund launched in late 2013. For more details, please refer to our white paper "Bitcoin's Role in a Traditional Portfolio" published in August 2023 and available at <https://bitwiseinvestments.com/crypto-market-insights/bitcoins-role-in-a-traditional-portfolio>.

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Historical Impact on a Traditional 60/40 Portfolio: Ethereum

Portfolio Performance Metrics (Rebalanced Quarterly)

PORTFOLIO	CUMULATIVE RETURN	ANNUALIZED RETURN	ANNUALIZED VOLATILITY	SHARPE RATIO	MAXIMUM DRAWDOWN
Traditional 60/40 Portfolio	79.99%	7.89%	9.15%	0.578	22.07%
Traditional Portfolio + 1.0% Ethereum	107.35%	9.88%	9.50%	0.761	22.60%
Traditional Portfolio + 2.5% Ethereum	154.08%	12.81%	10.52%	0.959	23.39%
Traditional Portfolio + 5.0% Ethereum	249.04%	17.53%	12.93%	1.136	24.70%
Traditional Portfolio + 10.0% Ethereum	516.56%	26.50%	18.51%	1.267	27.38%

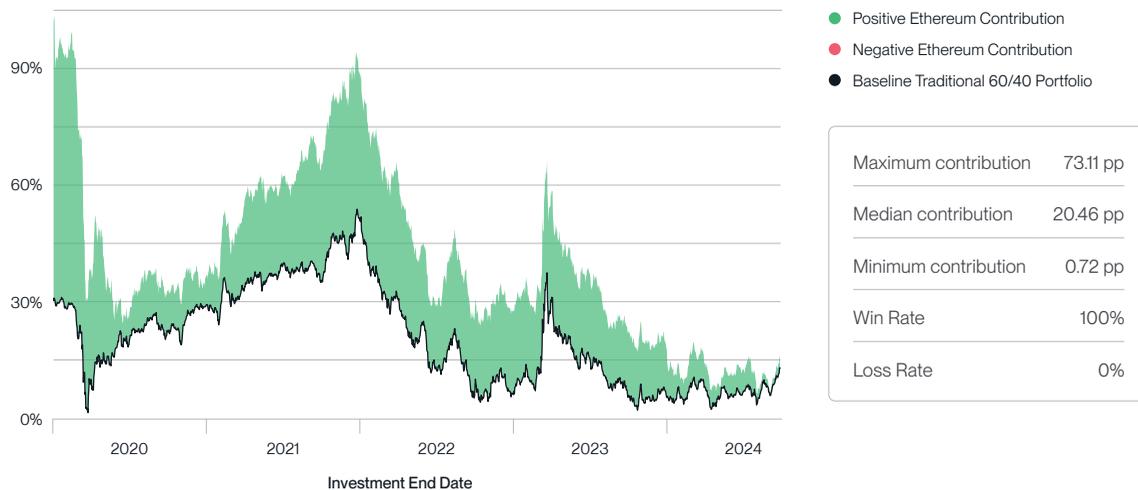
Source: Bitwise Asset Management with data from Bloomberg. Data from January 1, 2017 to September 30, 2024.

Note: Traditional Portfolio consists of 60% equities (represented by the FTSE Global All Cap Index) and 40% bonds (represented by the Bloomberg US Aggregate Bond Float Adjusted Index). For index definitions, **see p.67**. Not considering taxes nor transaction costs. Performance of individual crypto assets may differ significantly from the performance of Ethereum. The period before 2017 is excluded as that is the first year that full-year price data is available for Ethereum.

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Historical Impact on a Traditional 60/40 Portfolio: Ethereum

Contribution of a 5% Ethereum Allocation to a 60/40 Portfolio: 3-Year Rolling Cumulative Return (Rebalanced Quarterly)



Source: Bitwise Asset Management with data from Bloomberg. Data from January 1, 2017 to September 30, 2024.

Note: Traditional Portfolio consists of 60% equities (represented by the FTSE Global All Cap Index) and 40% bonds (represented by the Bloomberg US Aggregate Bond Float Adjusted Index). For index definitions, [see p.67](#). Not considering taxes nor transaction costs. Performance of individual crypto assets may differ significantly from the performance of Ethereum. The period before 2017 is excluded as that is the first year that full-year price data is available for Ethereum.

Past performance does not predict or guarantee future results. Nothing contained herein is intended to predict the performance of any investment. There can be no assurance that actual outcomes will match the assumptions or that actual returns will match any expected returns. Historical performance of sample portfolios has been generated and maximized with the benefit of hindsight. The returns do not represent the returns of an actual account and do not include the fees and expenses associated with buying, selling and holding funds or crypto assets. It is not possible to invest directly in an index. Performance information is provided for informational purposes only. Please see important disclosure information in this document.

Historical Impact on a Traditional 60/40 Portfolio: Equal Weight Bitcoin and Ethereum

Portfolio Performance Metrics (Rebalanced Quarterly)

PORTFOLIO	CUMULATIVE RETURN	ANNUALIZED RETURN	ANNUALIZED VOLATILITY	SHARPE RATIO	MAXIMUM DRAWDOWN
Traditional 60/40 Portfolio	79.99%	7.89%	9.15%	0.578	22.07%
Traditional Portfolio + 1.0% BTC & ETH (50/50)	99.76%	9.35%	9.33%	0.719	22.66%
Traditional Portfolio + 2.5% BTC & ETH (50/50)	132.63%	11.53%	9.82%	0.900	23.55%
Traditional Portfolio + 5.0% BTC & ETH (50/50)	196.93%	15.10%	11.03%	1.117	25.02%
Traditional Portfolio + 10.0% BTC & ETH (50/50)	367.76%	22.06%	14.29%	1.338	27.91%

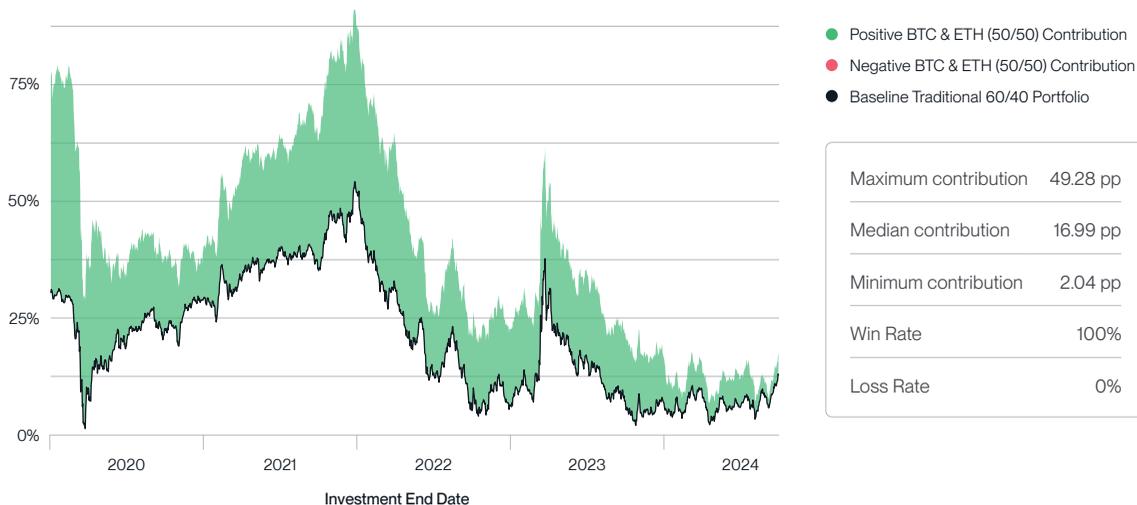
Source: Bitwise Asset Management with data from Bloomberg. Data from January 1, 2017 to September 30, 2024.

Note: Traditional Portfolio consists of 60% equities (represented by the FTSE Global All Cap Index) and 40% bonds (represented by the Bloomberg US Aggregate Bond Float Adjusted Index). For index definitions, [see p.67](#). Not considering taxes nor transaction costs. Performance of individual crypto assets may differ significantly from the performance of Bitcoin and Ethereum. The period before 2017 is excluded as that is the first year that full-year price data is available for Ethereum.

Past performance does not predict or guarantee future results. Nothing contained herein is intended to predict the performance of any investment. There can be no assurance that actual outcomes will match the assumptions or that actual returns will match any expected returns. Historical performance of sample portfolios has been generated and maximized with the benefit of hindsight. The returns do not represent the returns of an actual account and do not include the fees and expenses associated with buying, selling and holding funds or crypto assets. It is not possible to invest directly in an index. Performance information is provided for informational purposes only. Please see important disclosure information in this document.

Historical Impact on a Traditional 60/40 Portfolio: Equal Weight Bitcoin and Ethereum

Contribution of a 5% BTC & ETH Equal Weight Allocation to a 60/40 Portfolio: 3-Year Rolling Cumulative Return (Rebalanced Quarterly)



Maximum contribution	49.28 pp
Median contribution	16.99 pp
Minimum contribution	2.04 pp
Win Rate	100%
Loss Rate	0%

Source: Bitwise Asset Management with data from Bloomberg. Data from January 1, 2014 to September 30, 2024.

Note: Traditional Portfolio consists of 60% equities (represented by the FTSE Global All Cap Index) and 40% bonds (represented by the Bloomberg US Aggregate Bond Float Adjusted Index). For index definitions, [see p.67](#). Not considering taxes nor transaction costs. Performance of individual crypto assets may differ significantly from the performance of Bitcoin and Ethereum. The period before 2017 is excluded as that is the first year that full-year price data is available for Ethereum.

Past performance does not predict or guarantee future results. Nothing contained herein is intended to predict the performance of any investment. There can be no assurance that actual outcomes will match the assumptions or that actual returns will match any expected returns. Historical performance of sample portfolios has been generated and maximized with the benefit of hindsight. The returns do not represent the returns of an actual account and do not include the fees and expenses associated with buying, selling and holding funds or crypto assets. It is not possible to invest directly in an index. Performance information is provided for informational purposes only. Please see important disclosure information in this document.

Correlations: Bitcoin vs. S&P 500

90-Day Rolling



Source: Bitwise Asset Management with data from Bloomberg. Data from July 17, 2010 to September 30, 2024. S&P 500 is represented by the S&P 500 Total Return Index. For index definitions, [see p.67](#).

Note: The green color band indicates a range of -0.5 to 0.5, which is traditionally defined as "low" or "no" correlation.

Correlations: Ethereum vs. Nasdaq-100

90-Day Rolling

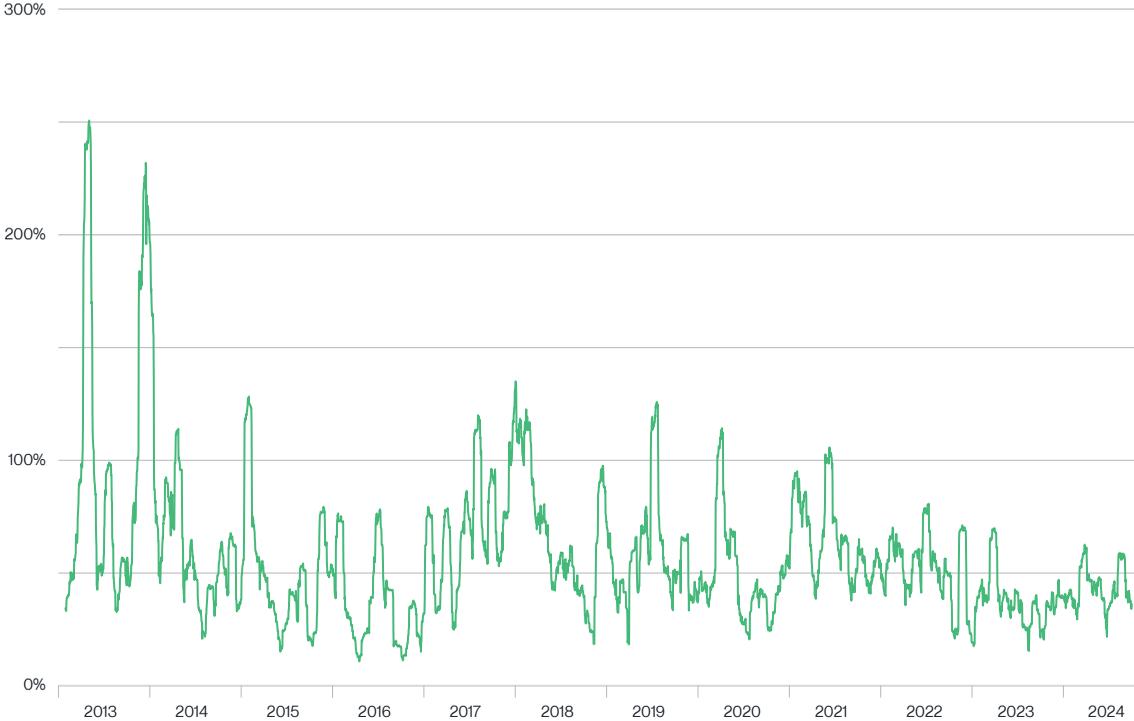


Source: Bitwise Asset Management with data from Bloomberg. Data from March 15, 2016 to September 30, 2024. Nasdaq-100 is represented by the Nasdaq-100 Total Return Index. For index definitions, [see p.67](#).

Note: The green color band indicates a range of -0.5 to 0.5, which is traditionally defined as "low" or "no" correlation.

Bitcoin's Historical Volatility

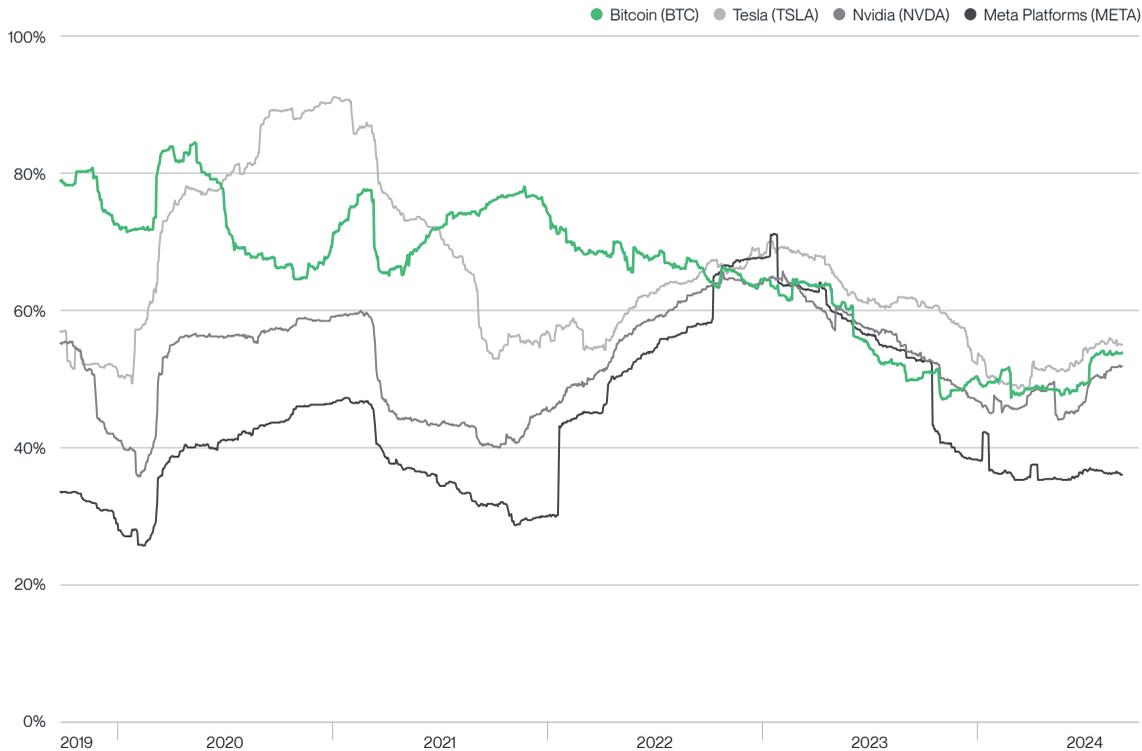
30-Day Moving Average



Source: Bitwise Asset Management with data from Coin Metrics. Data from January 1, 2013 to September 30, 2024.

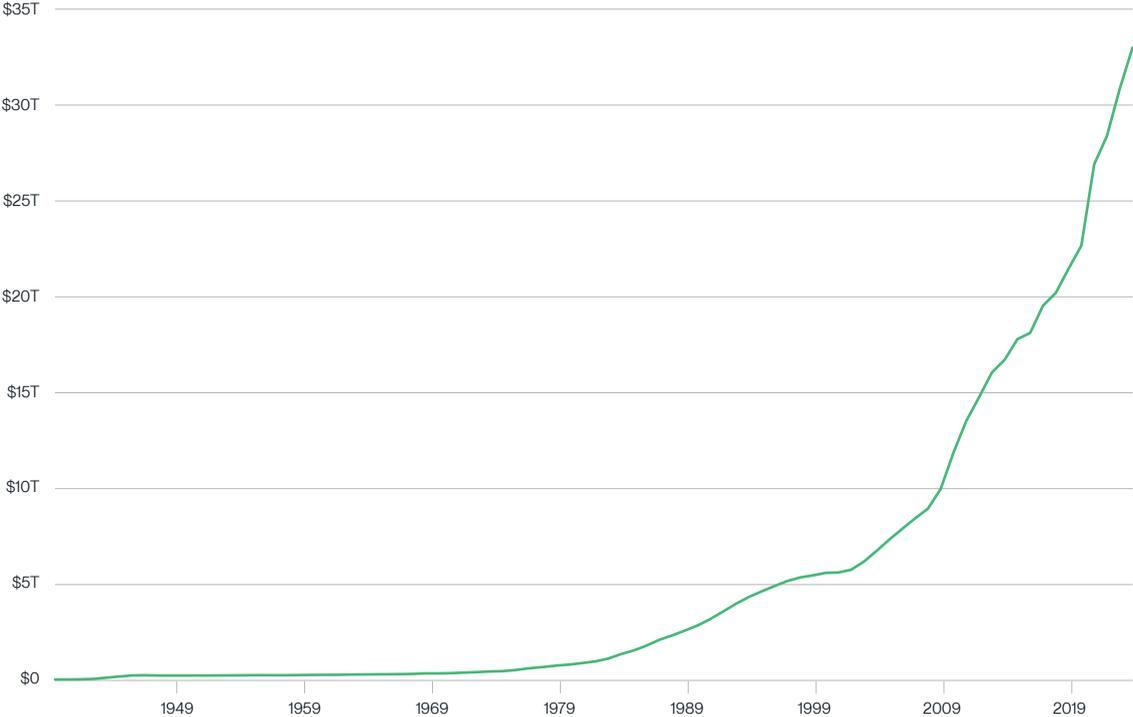
Volatility: Bitcoin vs. Tesla, Nvidia, and Meta

1-Year Rolling Annualized Volatility



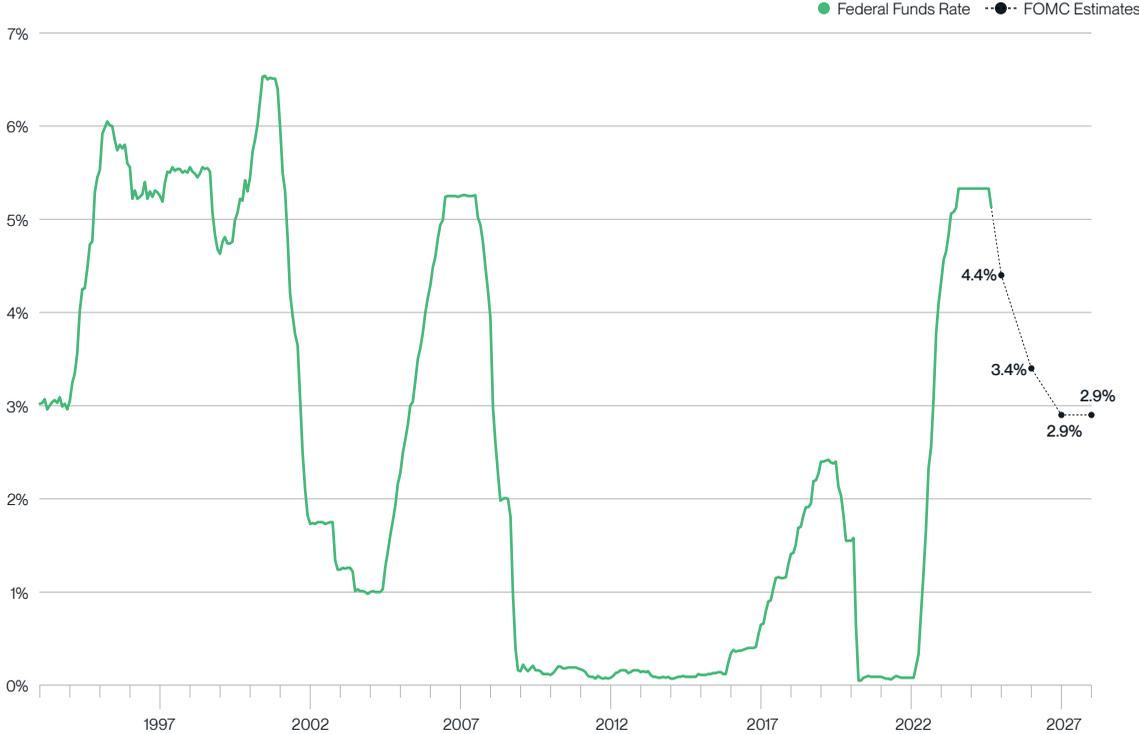
Source: Bitwise Asset Management with data from Bloomberg. Data from September 30, 2019 to September 30, 2024.

Total U.S. Federal Debt



Source: Bitwise Asset Management with data from the Federal Reserve Bank of St. Louis. Data from June 30, 1939 to September 30, 2023.

U.S. Federal Funds Rate and FOMC Estimates



Source: Bitwise Asset Management with data from the Federal Reserve Bank of St. Louis. "Federal Funds Rate" data from January 1, 1993 to September 1, 2024. "FOMC Estimates" data for year-end 2024, 2025, 2026, and 2027.

Crypto Adoption by Institutions

	CRYPTO TRADING AND CUSTODY ¹	PRIVATE CRYPTO FUNDS	CRYPTO ETFS	CRYPTO-ENABLED PAYMENTS	TOKENIZATION
Bank of America	●				
BlackRock	●	●	●		●
BNY Mellon	●		●		●
CBOE	●				
Charles Schwab	●		●		
Citi					●
CME	●				
Deutsche Bank	●				●
Deutsche Börse	●				
Fidelity	●	●	●		●
Franklin Templeton	●	●	●		●
Goldman Sachs	●		●		●
HSBC	●				●
Interactive Brokers	●		●		
JPMorgan Chase	●	●	●	●	●
London Stock Exchange	●				
Mastercard				●	
Morgan Stanley		●	●		
PayPal	●			●	●
Société Générale	●				●
UBS	●		●		●
Visa				●	●

Source: Bitwise Asset Management with data from company filings and presentations. Data as of September 30, 2024.

(1) "Crypto Trading and Custody" includes the trading of crypto spot, futures, and derivatives products.

Recent U.S. Regulatory Developments

TIMING	DEVELOPMENT	DESCRIPTION
July 2024	Spot Ethereum ETFs go live in the U.S.	The SEC approved the launch of spot Ethereum ETFs, marking the first time U.S. investors could gain direct exposure to Ethereum in an ETF format.
August 2024	OpenSea receives Wells notice from SEC	The SEC issued a Wells notice to NFT marketplace OpenSea, asserting that some NFTs sold on their platform are considered securities.
September 2024	Uniswap Labs settles charges with CFTC	Uniswap Labs agreed to pay the CFTC \$175,000 to settle charges related to allegations that it illegally facilitated leveraged and margined digital asset transactions through its decentralized exchange.
September 2024	SEC approves the listing and trading of options on spot bitcoin ETFs	The SEC approved the listing and trading of options on select spot bitcoin ETFs, marking a significant step in integrating bitcoin into mainstream financial markets. Further approvals from the OCC and the CFTC are required before the options can officially be listed.
September 2024	BNY Mellon enters crypto custody business	BNY Mellon secured SEC approval to provide expanded crypto asset custody services, including for ETF issuers, expanding its role in the digital asset market.

Source: Bitwise Asset Management.

Definitions

- 1) The **Bitwise 10 Large Cap Crypto Index (XBITW)** captures the 10 largest eligible crypto assets by free-float-adjusted market capitalization.
- 2) The **Bitwise Crypto Innovators 30 Total Return Index (XBITQG)** is an equity index that provides focused exposure to companies that are building the future of the crypto asset-enabled decentralized economy.
- 3) The **Bitwise Decentralized Finance Crypto Index (XBITDEFI)** tracks the value of crypto assets in the rapidly emerging Decentralized Finance space.
- 4) The **S&P 500® Total Return Index (SPXT)** tracks the performance of 500 large-cap publicly traded companies in the U.S.
- 5) The **MSCI U.S. REIT Gross Total Return Index (RMSG)** is a free float-adjusted market capitalization-weighted index that is comprised of equity Real Estate Investment Trusts (REITs).
- 6) The **FTSE Global All Cap Index (TGPVA16U)** is a market-capitalization-weighted index representing the performance of large, mid and small cap companies in Developed and Emerging markets.
- 7) The **Bloomberg U.S. Aggregate Bond Index (LBUSTRUU)** tracks U.S. dollar-denominated, investment-grade debt.
- 8) The **Bloomberg US Aggregate Bond Float Adjusted Index (LBUFTRUU)** is a broad-based benchmark that measures the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market. The Float-Adjusted version excludes U.S. agency debentures held in the Federal Reserve SOMA account.
- 9) The **MSCI EAFE Gross Total Return USD Index (M2EA)** is designed to represent the performance of large- and mid-cap securities across 21 developed markets, including countries in Europe, Australasia and the Far East, excluding the U.S. and Canada.
- 10) The **MSCI Emerging Markets Gross Total Return USD Index (M2EF)** captures large- and mid-cap representation across 24 Emerging Markets (EM) countries.
- 11) The **Deutsche Bank DBIQ Optimum Yield Diversified Commodity Index Total Return (DBLCDBCT)** is based on 14 commodities drawn from the energy, precious metals, industrial metals and agriculture sectors.
- 12) The **Nasdaq-100® Total Return Index (XNDX)** tracks 100 of the largest domestic and international non-financial companies listed on the Nasdaq Stock Market.
- 13) “Gold” is represented by the spot gold price with data from Bloomberg.
- 14) Bitcoin and other crypto assets are represented by the respective spot price.

Risks and Important Information

The opinions expressed herein are intended to provide insight or education and are not intended as individual investment advice. Bitwise does not represent that this information is accurate and complete and should not be relied upon as such.

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