

Around the block

Monthly cryptocurrency and blockchain related highlights
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Highlights

1. Groundhog day or spring thaw?

- Groundhog day on February 2nd witnessed Punxsutawney Phil see his shadow and, according to legend, that means another 6 weeks of winter. That's the last thing that crypto enthusiasts wanted to hear.
- Nevertheless, Crypto has rallied this year with other risk assets as markets continue to gauge a deceleration of Fed rate hikes.
- Part of the January rally in the most liquid and large crypto names, such as bitcoin and ether, is likely due to short covering as bearish futures positions were unwound.

2. Crypto volumes surge

- January trading activity saw crypto volumes surge 44% following a decline of 48% in December.
- Some of the strongest volume spikes were concentrated in the most beaten down assets such as smart contract platform Solana which also saw its price rise by 140% in January.

3. Politicians compelled to return FTX campaign donations

- As part of FTX bankruptcy proceedings, new FTX management sent confidential letters to politicians and PACs asking that campaign donations received from FTX be returned by February 28th
- FTX paid an estimated \$70 million in campaign contributions making them one of the largest contributors during last year's election season.

Investing in speculative investments, like those related to cryptocurrency, involves a high degree of risk and is not suitable for all investors.



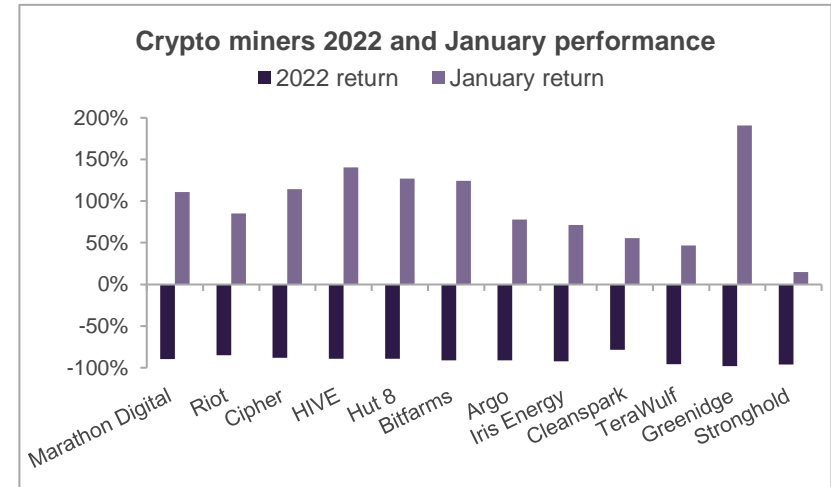
Investment and insurance products:

- Are not FDIC or any other government agency insured
- Are not bank guaranteed
- May lose value

Chart of the month — Miner's bounce

Crypto mining company stocks suffered an abysmal 2022, falling an average of 90% as a group. 2022 headwinds included: the transition of Ethereum to a proof-of-stake validation mechanism, ongoing environmental concerns about significant energy consumption and the crypto winter. Miners are chiefly compensated in the cryptocurrencies they perform transaction validation for and plunging bitcoin prices left them selling bitcoin to pay their bills, adding to bitcoin's price volatility.

January's reversal coincided with a rebound in bitcoin prices and record hashrate* levels, often a sign of strength for the sector.



Data sources: Truist IAG, Morningstar Direct

*Hashrate: how much computing power is used by the network to process transactions

Wealth

Regulatory and non-crypto blockchain developments

Regulatory news

We entered 2023 anticipating regulatory progress with developments remaining fluid. Some key highlights:

The White House

In January, the White House released its “Roadmap to Mitigate Cryptocurrencies Risk”. This, like two previous White House frameworks in 2022 are more a call to action from Congress and respective government regulatory agencies.

Joint Statement on Crypto Asset Risks to Banking Organizations

On January 3rd, the Federal Reserve, FDIC and OCC issued a joint statement on crypto risks to banking organizations. The statement highlighted risks including 1) potential interconnectivity between crypto firms and the traditional banking sector, 2) lack of government oversight of decentralized networks, exchanges and custodians, and 3) crypto company fraud and traditional bank susceptibility to stablecoin bank runs.

Congress and the SEC

Congress’ regulatory efforts continue to see starts and stops, with only draft legislation submissions to date. In contrast, the SEC has undertaken enforcement actions, like the recent Kraken decision to curb the crypto exchange’s ability to offer staking programs.

International Progress

The European Union and the UK anticipate crypto regulatory legislation to be finalized as early as April, which could serve as an additional call to action for US Congress to accelerate its progress in a bi-partisan way.

Non-crypto blockchain news

Microsoft

At the January Consumer Electronics Show, Microsoft highlighted its focus on “mobility cross-functionality” where the metaverse can be used as a hybrid shopping model, moving the customer experience from the web to the metaverse. An example of this new metaverse is the Fiat Metaverse Store where consumers can customize their shopping experience, virtually configuring their design and delivery choices.

The California DMV

California hopes that its consumers will soon cheer the ability to avoid long DMV lines for car registrations. The California DMV (Department of Motor Vehicles) is moving car titles and registrations to the Tezos blockchain. The project is being built in partnership with Oxhead Alpha, a cryptocurrency development company. This could be the first steps toward a nationalized car registry, lowering costs, improving efficiencies and protecting customers via “lemon” laws by disclosing defective cars transparently. A future goal expands on this potentially allowing customers to transfer titles as NFT’s (Non-fungible tokens) through a DMV consumer app.

Wisdom Tree launches digital ETF’s

In January, ETF provider launched the first of its kind lineup of 9 ETF’s utilizing blockchain technology. These funds do not invest in cryptocurrencies or digital equities. Instead, they invest in traditional equities such as the S&P 500 index and traditional fixed income instruments such as Treasury notes. These blockchain enabled funds introduce a new technology infrastructure that utilize the Ethereum and Stellar blockchains for shareholder record keeping providing enhanced efficiency and transparency.

Performance monitor (1/31/2023)

Crypto and traditional indices

Bitcoin/Ethereum	Composition	1 Mo	3 Mo	1 Yr
CMBI Bitcoin		39.6%	13.3%	-39.9%
CMBI Ethereum		32.3%	1.2%	-40.7%
CMBI Btc/Eth		39.7%	10.8%	-39.8%
Diversified Baskets				
CMBI 10 Cap Wgt	cap weight	40.6%	7.1%	-44.2%
CMBI 10 Even Wgt	equal weight	53.8%	-10.6%	-55.8%
CMBI ex-bitcoin	CMBI 10 - BTC	38.9%	-1.6%	-49.9%
CMBI Total Market	cap weight	38.3%	4.9%	-43.8%
MVIS CryptoCompare DA 10	30% coin cap	36.7%	36.7%	-43.4%
MVIS CryptoCompare DA 25	20% coin cap	41.9%	-0.1%	-49.6%
MVIS Sector Leaders				
Smart Contracts		50.5%	-5.8%	-61.4%
DeFi		49.6%	0.8%	-54.7%
Media and Entertainment		78.6%	-0.2%	-77.5%
Infrastructure		42.9%	1.9%	-54.4%
Equities				
NYSE Factset Global Blockchain	digital equities	53.9%	4.0%	-53.8%
MVIS Global Digital Assets Equity	digital equities	63.6%	-7.0%	-68.4%
S&P 500		6.3%	5.8%	-8.2%
MSCI World ex USA		8.2%	19.1%	-3.0%
MSCI EM		7.9%	22.2%	-12.1%
Fixed Income				
Bloomberg US Agg Bond		3.1%	6.4%	-8.4%
Bloomberg US Treasury US TIPS		1.8%	2.6%	-8.4%
Commodities				
Bloomberg Commodity		-0.5%	-0.3%	6.2%
SPDR® Gold Shares		6.1%	17.3%	6.7%

Data sources: Truist IAG, Morningstar, CoinMetrics, Messari
See disclosures for more on index definitions and methodology.

Crypto assets month in review

January saw a reversal in crypto prices as the ecosystem began to reset itself back to pre-FTX contagion and edged back above the \$1 trillion market level. Bitcoin (BTC), at 41% of the total ecosystem market cap, generated the highest monthly return since October 2021 and posted the best January since 2013. However, the 1-year returns are still negative, a reminder that a 50% price decline requires a 100% return just to recover.

Correlations between the two leading cryptocurrencies, bitcoin and ether, to the S&P 500 remain near their highest levels, likely signifying greater sensitivity to macroeconomic drivers such as restrictive Fed policy.

Additionally, part of the January BTC rally resulted from investors unwinding their short positions, which is similar to the impact of short covering in the equity rally for this period.

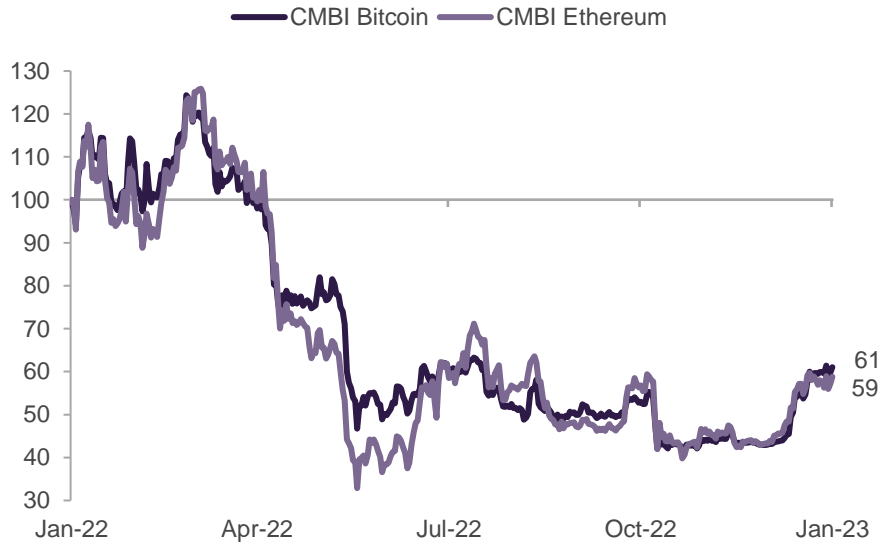
Notable callouts for the month:

- We've added a new index this month, the CMBI Total Market Index as a cap weighted performance proxy for the entire crypto ecosystem.
- The Media and Entertainment sector staged a powerful rally on the back of a 1 month 148% return gained by leading token Decentraland.
- Digital asset equities dominated by miners and crypto banks, bounced off impaired valuations setting the stage for potential consolidations.

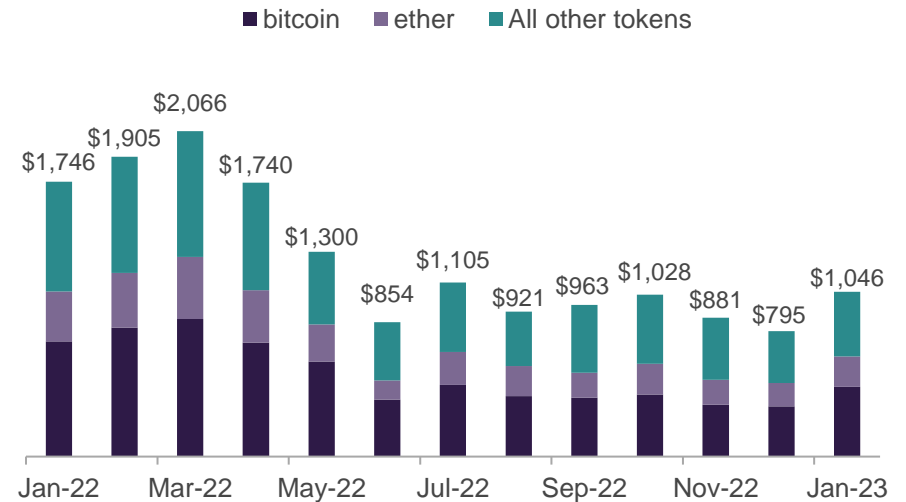
Cryptocurrency ecosystem snapshot as of 1/31/23

- Bitcoin and ether 1-year returns remain roughly 40% below their all-time highs despite YTD returns of 40% and 32% respectively
- The crypto ecosystem staged a 31% January recovery back to levels not seen since July 2022

Bitcoin and ether 1-year indexed returns



Cryptocurrency aggregate market cap (\$billions) with bitcoin and ether dominance



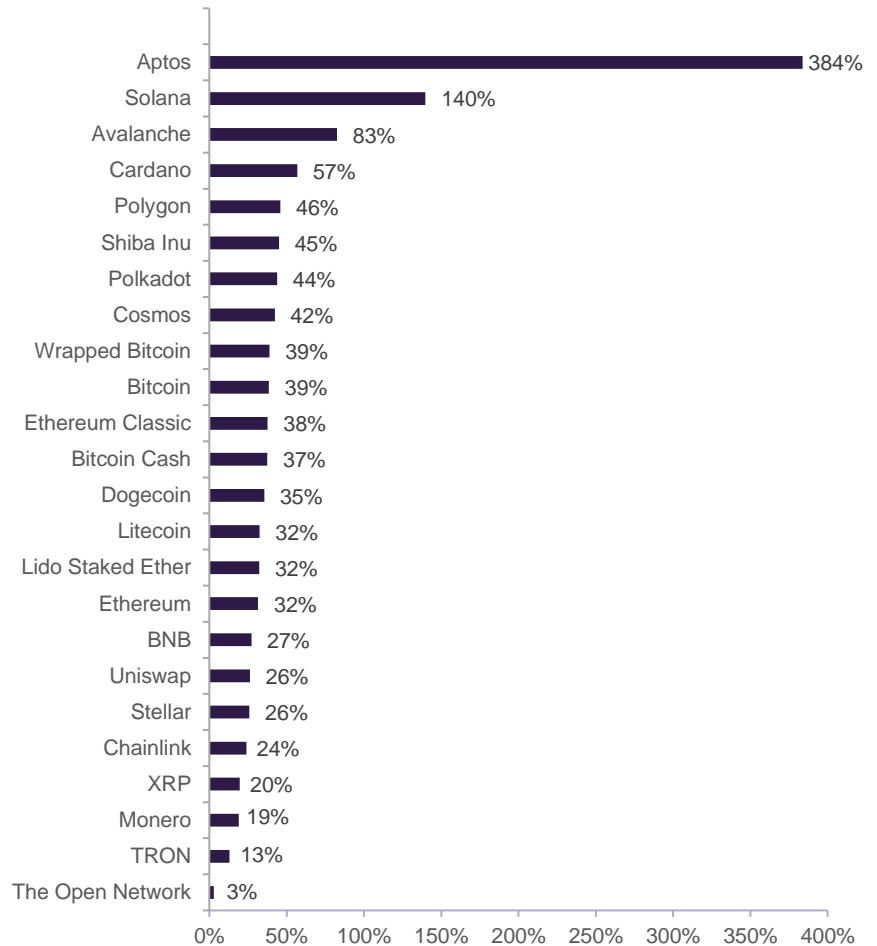
Data sources: Truist IAG, CoinMetrics, Messari

January 2023 top 25 tokens by market cap

Top 25 cryptocurrencies and top five stablecoins:
90% of total crypto ecosystem, bitcoin/ether 60% of total

Rank	Name	Symbol	Sector	Mkt Cap (\$billions)	Mkt Cap Dominance	Cumulative Mkt Cap Dominance
1	Bitcoin	BTC	Currencies	\$ 442.1	41.5%	41.5%
2	Ethereum	ETH	Smart Contract	\$ 192.9	18.1%	59.5%
3	BNB	BNB	Smart Contract	\$ 49.2	4.6%	64.2%
4	XRP	XRP	Currencies	\$ 20.6	1.9%	66.1%
5	Cardano	ADA	Smart Contract	\$ 13.4	1.3%	67.3%
6	Dogecoin	DOGE	Currencies	\$ 12.6	1.2%	68.5%
7	Polygon	MATIC	Scaling	\$ 9.6	0.9%	69.4%
8	Solana	SOL	Smart Contract	\$ 8.9	0.8%	70.3%
9	Lido Staked Ether	STETH		\$ 7.9	0.7%	71.0%
10	Polkadot	DOT	Smart Contract	\$ 7.5	0.7%	71.7%
11	Shiba Inu	SHIB		\$ 6.9	0.6%	72.3%
12	Litecoin	LTC	Currencies	\$ 6.7	0.6%	73.0%
13	Avalanche	AVAX	Smart Contract	\$ 6.2	0.6%	73.6%
14	TRON	TRX	Smart Contract	\$ 5.7	0.5%	74.1%
15	Uniswap	UNI	Exchange	\$ 4.9	0.5%	74.5%
16	Wrapped Bitcoin	WBTC		\$ 4.0	0.4%	74.9%
17	Cosmos	ATOM	Smart Contract	\$ 3.9	0.4%	75.3%
18	Chainlink	LINK	Data Mgmt	\$ 3.5	0.3%	75.6%
19	The Open Network	TONCOIN		\$ 3.4	0.3%	75.9%
20	Unus Sed Leo	LEO	Exchange	\$ 3.4	0.3%	76.3%
21	Monero	XMR	Currencies	\$ 3.2	0.3%	76.6%
22	Ethereum Classic	ETC	Smart Contract	\$ 3.0	0.3%	76.8%
23	Aptos	APT	Smart Contract	\$ 2.7	0.3%	77.1%
24	Bitcoin Cash	BCH	Currencies	\$ 2.6	0.2%	77.3%
25	Stellar	XLM	Currencies	\$ 2.4	0.2%	77.6%

Top 25 January 2023 performance rankings



Top 5 Stablecoins

USDT	USDT	Stablecoins	\$ 67.8	6.4%	6.4%
USDC	USDC	Stablecoins	\$ 42.7	4.0%	10.4%
BUSD	BUSD	Stablecoins	\$ 15.7	1.5%	11.8%
DAI	DAI	Stablecoins	\$ 5.1	0.5%	12.3%
FRAX	FRAX	Stablecoins	\$ 1.0	0.1%	12.4%



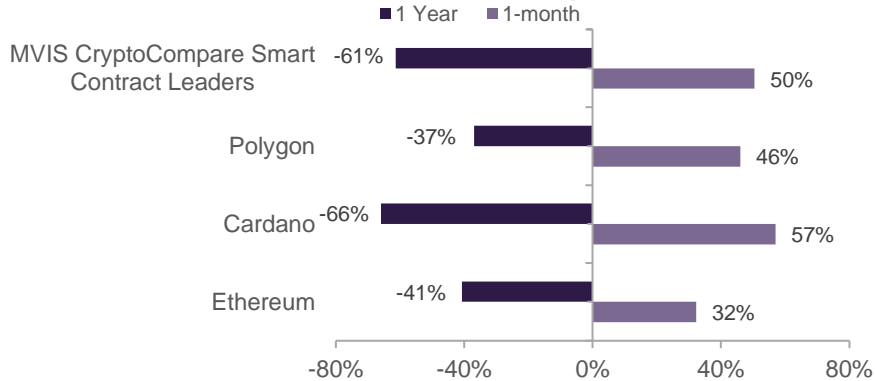
Data sources: Truist IAG, Messari



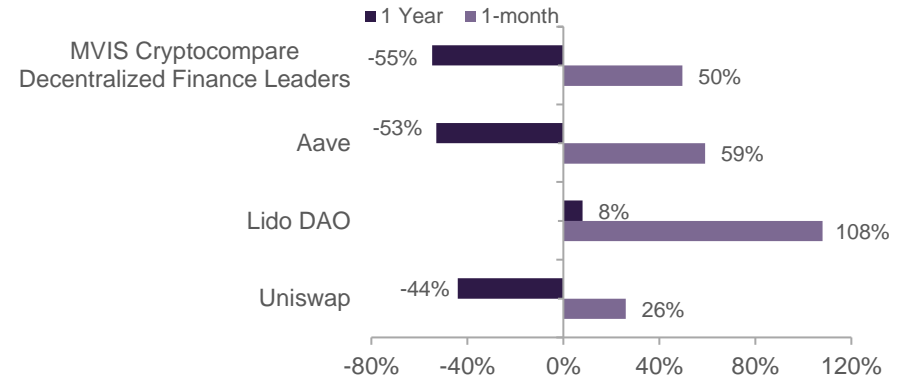
Key crypto sectors 1/31/2023

Differentiating between crypto sectors provides industry perspective similar to sectors within the S&P 500.

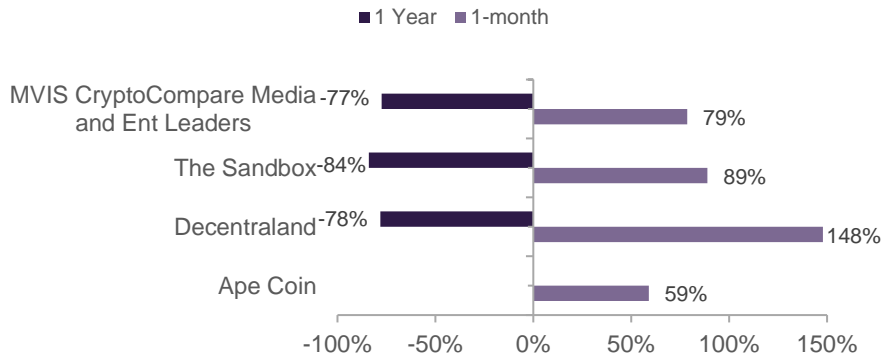
Smart contract index and top 3 tokens



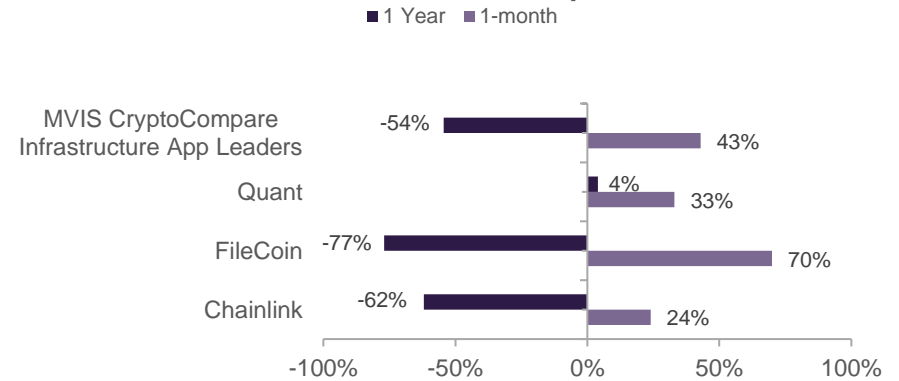
DeFi index and top 3 tokens



Metaverse index and top 3 tokens



Infrastructure index and top 3 tokens



Data sources: Truist IAG, MVIS CryptoCompare, Messari, Morningstar.

See disclosures for more on index definitions and methodology.

Digital glossary

Digital technologies

Cryptocurrency refers to cryptographic currencies like bitcoin and alternative coins or ‘altcoins’, launched after the success of bitcoin. This category of digital assets is designed to work as a medium of exchange, store of value, or to power applications.

Token is a subset of cryptocurrencies. Tokens are units of value issued by platforms built on top of existing blockchains.

Bitcoin was the first system of global, decentralized, scarce, digital money as initially introduced in a white paper titled Bitcoin: A Peer-to-Peer Electronic Cash System by Satoshi Nakamoto.

Ethereum is a decentralized, public blockchain network that supports composable smart contracts which can support decentralized applications as well as peer-to-peer transfers. “ether” is the native cryptocurrency of the Ethereum network.

Stablecoins are the tokens designed to track the value of an off-chain asset, such as a fiat money or exchange traded commodity, most commonly U.S. dollars.

Smart contract is a software, typically carried on a decentralized public blockchain, that can execute or enforce pre-determined actions or agreements without the intervention of a centralized intermediary.

DeFi means decentralized finance; a peer-to-peer software-based network of protocols that can be used to facilitate traditional financial services like borrowing, lending, trading derivatives, insurance and more through non-custodial smart contracts carried on public blockchain networks.

NFT means non-fungible tokens. For example, money (or a single unit of bitcoin) is fungible—each one unit is considered equal to any other unit of identical size. Conversely, artwork is not fungible—no two paintings are identical. Non-fungible tokens represent unique digital property, whether a collectible, artwork, intellectual property, or something else.

Metaverse is a network of 3D virtual worlds focused on social connection. This can include virtual reality, augmented reality, and the digital economy.

Central Bank Digital Currency (CBDC) is a digital version of a government-issued fiat currency that’s managed by a central bank.

Web 3.0 is the third generation of the internet where technologies such as machine learning, decentralized ledgers, and artificial intelligence allow for a transparent environment that does not rely on central entities to manage and distribute content.

Data sources: Truist IAG, Galaxy Digital



Wealth

Digital glossary

Digital technology concepts

Digital asset is any digital asset built using blockchain technology, including cryptocurrencies, stablecoins, non-fungible digital collectibles (NFTs) and security tokens.

Exchanges are platforms where you can buy and sell cryptocurrencies. Notable exchanges include Coinbase and Binance.

Decentralization is the process of removing intermediaries in a process and pushing power over a system out to the edges of the system, or to the users as a collective.

Public ledger is a transparent, distributed digital record of transactions that can be downloaded by anyone around the world.

Blockchain means a cryptographically secure digital ledger that maintains a record of all transactions that occur on the network and follows a consensus protocol for confirming new blocks to be added to the blockchain.

Block is a batch of confirmed transactions on the digital ledger. Blocks are added to an existing blockchain as transactions occur on the network. Miners are rewarded for “mining” a new block and sometimes awarded a token.

Mining is the process by which new blocks are created, and thus new transactions are added to the blockchain. The term “miner” typically refers to an entity that participates in block production on a Proof of Work network, whereas “validator” typically refers to an entity that participates in block production on a Proof of Stake network.

Double spend means the act of spending the same coin twice. If money can be double spent, it cannot function properly as it loses its scarcity and counterparties cannot trust that they alone have received payment. Solving the double-spend problem without the use of a central intermediary had never been accomplished until Bitcoin.

Address is a payment instruction for a digital asset. When receiving a payment, the recipient communicates their address to the payer, and the payer can send funds to that address.

Wallet is a tool that stores public and private keys and enables the user to use those keys to interact with a blockchain network. Wallets can be software, hardware, or physical (paper, metal, etc.).

Cold storage means the storage of private keys in any fashion that is disconnected from the internet. Common cold storage examples include offline computers, USB drives, or paper records.

Private key in asymmetric cryptography is a piece of data held in secret by an entity. It is used to compute digital signatures upon other data that can be verified by a third-party cheaply simply by knowing the public key.

Public keys are used with digital signatures to validate that the holder of a cryptocurrency coin did legitimately authorize the transfer of that coin to a new address or entity.

Fork is an event in open source software development when part of a community breaks away by making changes to the software.

Data sources: Truist IAG, Galaxy Digital



Disclosures

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Asset classes are represented by the following indexes. An investment cannot be made directly into an index.

U.S. Large Cap Equity is represented by the S&P 500 Index which is an unmanaged index comprised of 500 widely-held securities considered to be representative of the stock market in general.

Emerging Markets is represented by the MSCI Emerging Markets Index captures large and mid cap representation across 24 Emerging Markets (EM) countries. With 1,125 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

The MSCI World ex USA Index captures large and mid cap representation across 22 of 23 Developed Markets (DM) countries--excluding the United States. With 910 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

U.S. Core Taxable Bonds are represented by the Bloomberg U.S. Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM pass-throughs), ABS and CMBS (agency and non-agency).

The Bloomberg Barclays US Treasury Inflation-Linked Bond Index measures the performance of the US Treasury Inflation Protected Securities (TIPS) market. Federal Reserve holdings of US TIPS are excluded from the index.

Commodities are represented by the Bloomberg Commodity Index which is a composition of futures contracts on physical commodities. It currently includes a diversified mix of commodities in five sectors including energy, agriculture, industrial metals, precious metals and livestock. The weightings of the commodities are calculated in accordance with rules that ensure that the relative proportion of each of the underlying individual commodities reflects its global economic significance and market liquidity.

The Coin Metrics Bletchley Index **(CMBI) Bitcoin** is a cryptoasset benchmark designed to measure the performance an investor would expect from purchasing and holding Bitcoin. The benchmark represents a market aggregate USD value for Bitcoin. It aggregates data from the major global BTC/USD markets that conform to the Coin Metrics Market Selection Framework.

The Coin Metrics Bletchley Index **(CMBI) Ethereum** is a cryptoasset benchmark designed to measure the performance an investor would expect from purchasing and holding Ether. The benchmark represents a market aggregate USD value for Ether. It aggregates data from the major global ETH/USD markets that conform to the Coin Metrics Market Selection Framework.

The Coin Metrics Bletchley Index **(CMBI) Bitcoin and Ethereum** is a cryptoasset benchmark designed to measure the performance of a portfolio of Bitcoin and Ethereum, weighted by their free float market capitalization. It aggregates data from the major global BTC/USD and ETH/USD markets that conform to the Coin Metrics Market Selection Framework.

The **CMBI 10** is designed to measure the performance an investor would expect from investing in a diversified basket of crypto assets, weighted by their free float market capitalization. The 10 largest crypto assets, defined by an asset's expected 10 year future market capitalization, are selected as the index constituents.

The **CMBI 10 Even** offers an alternative to the CMBI 10 market cap weighted indexes. Even weighting strategies reflect the performance an investor would expect from investing an equal amount in a diversified basket of the largest crypto assets. Equal weighting is one of the oldest and best known methods of factor investing and aims to overcome weighting concentrating an index too heavily in a few large assets.

Disclosures

The **CMBI 10 Excluding Bitcoin** is designed to measure the performance an investor would expect from investing in a diversified basket of the largest non-Bitcoin crypto assets, weighted by their free float market capitalization. As Bitcoin is often an investor's first exposure to crypto assets, the CMBI10EX was designed to provide a simple mechanism to diversify into other large cap crypto assets. The same constituents as the CMBI10, with the exception of Bitcoin, are selected as the index constituents.

The MVIS CryptoCompare Smart Contract Leaders Index is designed to track the performance of the largest and most liquid smart contract assets, and is an investable subset of MVIS CryptoCompare Smart Contract Index.

The MVIS CryptoCompare Decentralized Finance Leaders Index is designed to track the performance of the largest and most liquid decentralized finance assets, and is an investable subset of MVIS CryptoCompare Decentralized Finance Index.

The MVIS CryptoCompare Media and Entertainment Leaders Index is designed to track the performance of the largest and most liquid media & entertainment assets, and is an investable subset of MVIS CryptoCompare Media & Entertainment Index.

The MVIS CryptoCompare Infrastructure Application Leaders Index is designed to track the performance of the largest and most liquid infrastructure application assets, and is an investable subset of MVIS CryptoCompare Infrastructure Application Index.

The MVIS Global Digital Assets Equity Index tracks the performance of the largest and most liquid companies in the digital assets industry. This is a modified market cap-weighted index, and only includes companies that generate at least 50% of their revenue from digital asset services and products, such as exchanges, payment gateways, mining operations, software services, equipment and technology, digital asset infrastructure, or the facilitation of commerce with the use of digital assets. MVDAPP covers at least 90% of the investable universe.

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