

Key Takeaways

- Volatility continues as a strong theme through most markets
- Economic data continues to indicate room for increased rate hikes
- YoY CPI is expected to decline to 8.1% from 8.3%, released on Thursday

Traditional Market Commentary

Volatility took center stage last week following a slow and steady rally based on the belief that economic tightening could be gradually ending. Friday's unemployment shattered that optimism and sent markets lower, moving equities to about unchanged for the week. The unemployment rate improved to 3.5% from last month at 3.7%, another example of the resiliency in the job market and what strategists fear that the effect of the recent run in rate hikes are not flowing through the economy. Fed governors repeated their hawkish statements claiming the job market must begin to react notably, while inflation must continue to trend lower, given revised dampening growth prospects projected through next year. Interest rates moved slightly higher week to week with the front end of the yield curve moving 20 bp but the 10 year treasury up only about 8 bp after reaching a low of 3.55% then rallying 30 bp near 3.9% by Friday. The S&P 500 was about unchanged for the week reaching a high at about 3800, then finishing closer to 3600 by Friday. The volatility index matched movement also finishing about unchanged for the week reaching a low 28.5 then rallying to almost 34 before settling near 31.5. VIX is currently at year to date highs at these levels above 30.

Corporate earnings season has arrived with investors cautious on growth prospects after a quarter that experienced an extraordinary period of rate hikes. Inflation watchers will focus on Thursday's monthly consumer price index (CPI) as year over year is expected to decline to 8.1% from 8.3%, but the month over month is expected to actually slightly rise about 0.1% to 0.2%. The producer price index will be released Wednesday, similarly showing a decline for the yearly indication and a slight rise for the monthly. The mixed news may shake markets currently sensitive to sustaining a higher interest rate environment past 2023 with current futures pricing in terminal rates at the 4.5-4.75% range for most of the new year. Friday's University of Michigan consumer sentiment index is expected to rise to 59 from 58.6, which may be the only highlight of the week.

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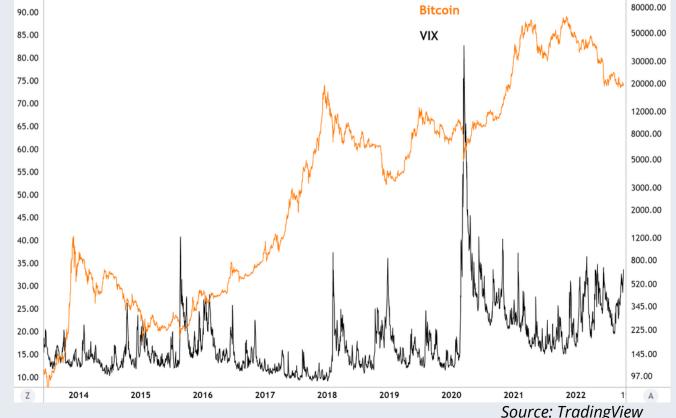






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Returns (%) 1 month **YTD Indices Ticker** Price (\$) 1 week 3 month 1 year **S&P 500** SPX 3639 1.51 -10.52 -6.66 -23.64 -17.12 0.62 -8.96 Nasdaq 100 NDX 11039 -12.30 -32.36 -25.51 -9.60 24.19 Russell 2000 **RUT** 1702 2.25 -3.80 -23.78 DJI 29296 1.99 -8.88 -6.51 -19.38 -15.68 Dow Jones Ind. **Commodities** 14.28 **Crude Oil** CL1 91.98 10.37 4.48 -11.10 21.90 **Brent Crude** BRN00 97.24 9.65 3.18 -8.60 24.79 16.23 **Natural Gas** NG00 6.83 4.97 -18.50 6.66 90.64 26.70 **Unleaded Gas** 2.70 9.59 22.02 **RB00** 7.50 -21.61 13.79 Gold -2.81 -8.04 -4.04 GC00 1683.40 -1.47 -3.00 Silver SI00 19.80 -4.60 0.18 3.99 -15.18 -12.31 3.44 4.66 0.67 -22.69 Copper HG00 0.91 -20.53 10.25 16.67 Corn C00 691.25 1.54 -0.43 29.69 Wheat W00 916.75 0.49 6.85 7.19 19.02 25.24 **Bloomberg** Commodity **BCOM** 117.63 5.51 -0.75 1.48 18.61 14.63 Index **Bitcoin** 19333.52 -0.52 -0.41 -3.00 -58.14 -64.62



News Review

- Yalkyrie Funds to Offer Risk-Managed Crypto SMAs, Challenging Ark and Franklin Templeton
- Gemini Exchange Brings Digital Assets to More Than 3,000 RIAs Managing \$1.3T+
- US Dept of Treasury: FSOC Releases Report on Digital Asset Financial Stability Risks and Regulation
- US Risk Watchdog Asks Congress to Name Crypto Spot Market Regulator
- California Moves Forward to Allow Vital Records to be Issued on Blockchain
- SWIFT Experiments with CBDC Technology and Tokenized Assets
- India's RBI Plans Phased Launch of Central Bank Digital
 Currency
- Stablecoin Issuer Tether Increases US Treasury Portfolio, Cuts Commercial Paper Holdings to Below \$50M
- NEAR Protocol Founder: Ukraine Shows How Crypto
 'Delivers Help Directly to People'
- Hamilton Lane and Securitize to Tokenize Funds, Expanding
 Access to Private Markets for a Broader Set of Investors
- Stablecoin Issuer MakerDAO to Invest \$500M in US
 Treasurys, Corporate Bonds
- Crypto VC Firm Paradigm Leads \$14M in Seed Funding Round for DeFi Platform Exponential
- OCEEF Selects Polygon to Help Deliver Its Next-Gen Ocean Conservation Initiative
- Can Starbucks Bring Web3 Into the Mainstream?



Key Takeaways

- Bitcoin's hashrate continued to reach new all-time highs over the past week
- Bitcoin mining profitability continues to drive efficiency improvements
- Mean reversion attempts across many digital assets are possible this quarter

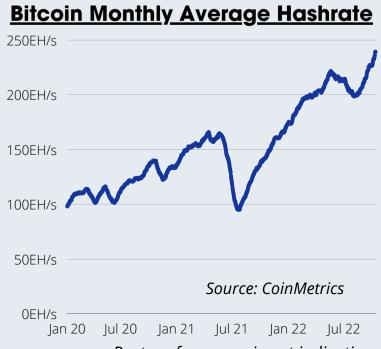
On-Chain Commentary

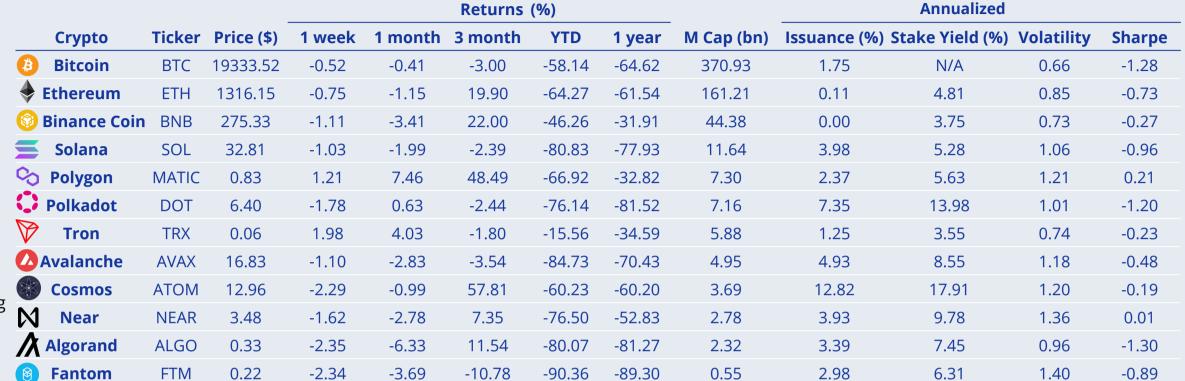
Bitcoin's Proof-of-Work hashrate continued to scream higher this week, signaling miners adding a significant amount of computational power to the network. Contributing factors for the increase include; a new generation of application-specific integrated circuits (ASICs) coming online, less power curtailment from miners located in Texas when compared to the summer months, and a consolidation of mining equipment from inefficient miners to efficient miners. A rising hashrate, seemingly agnostic to price, suggests continued profitability for these miners. Estimates for a breakeven Bitcoin price relative to costs to mine sit around the \$12,000 level. A mining software company Luxor currently calculates the hashprice, or the expected value of hashrate, at \$0.07/terahash/day, an all-time low.

Bitcoin and Ethereum continue to hold near historic levels of price accumulation in prior bear markets. The 200-week moving average, previous all-time high, and realized price, or aggregate average price of all coins moved on-chain sit within this range for Bitcoin and Ethereum. Throughout Q4, so long as no lower price lows beyond the June 0.125 and July lows are achieved, the likelihood of a mean reversion attempt to the 200-day moving average for many digital assets continues to increase. Alternatively, Fibonacci extensions for lower lows on Bitcoin and Ethereum point to the \$13,000 to \$15,000 and \$850 to \$1,050 ranges, respectively.

Bitcoin Fear and Greed Index Multifactorial Market Sentiment Analysis







-57.40

-66.66

0.42

Bitcoin 30-Day Rolling Volatility

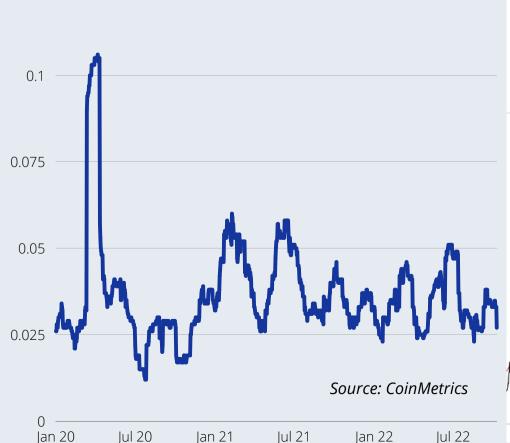
-2.87

1.29

-13.56

0.03

Zilliqa



Bitcoin Moving Averages

12.17

5.06

1.67

-0.08



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Key Takeaways

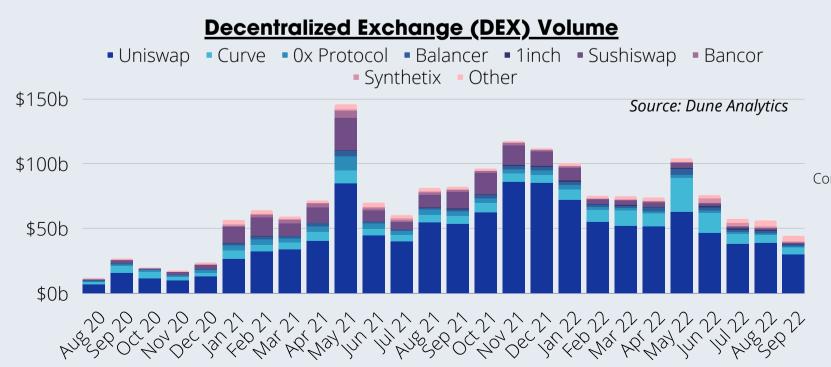
- MakerDAO's stablecoin reserves are adding US treasuries and corporate bonds into the mix
- The decentralized stablecoin has shifted towards a fiat-backed stablecoin model
- Banking partnerships for the stablecoin may expedite future scaling needs for MakerDAO

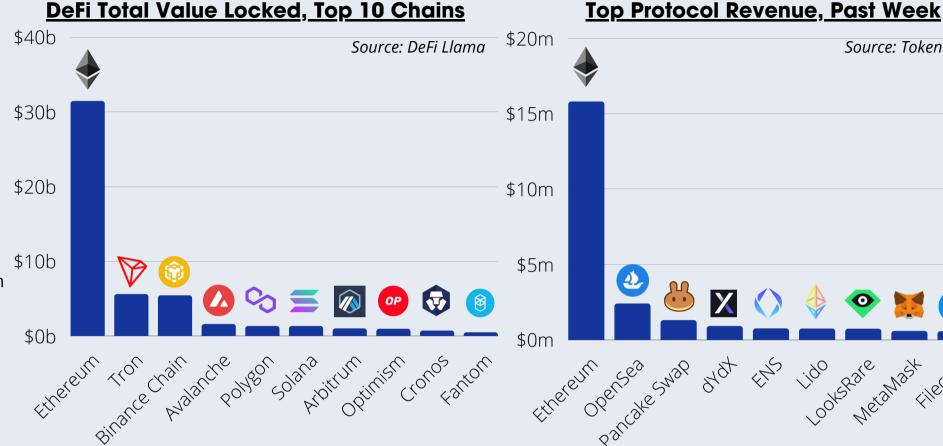
Decentralized Finance (DeFi) Commentary

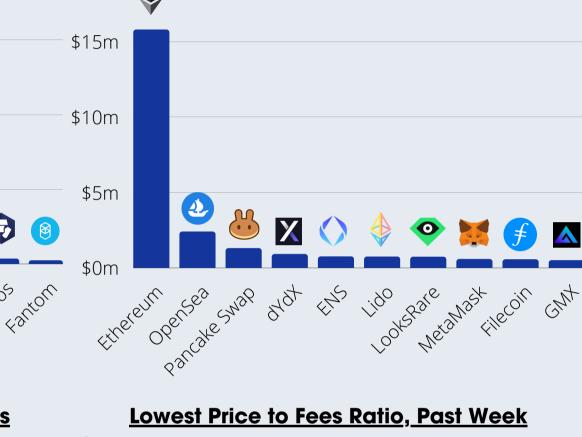
A decentralized stablecoin behemoth, MakerDAO, has decided to turn to tradfi to further diversify reserves away from solely cryptocurrencies.

Maker (MKR) is a utility token, governance token, and a recapitalization resource for the Maker platform, which operates as a Decentralized Autonomous Organization (DAO). Using other digital assets as collateral, the Maker platform allows users to mint the Dai stablecoin via collateralized debt positions. Initially, the stablecoin had difficulty maintaining a \$1 market value, as only Ethereum was accepted as collateral. Today, the stablecoin USDC comprises over 50% of Dai reserves.

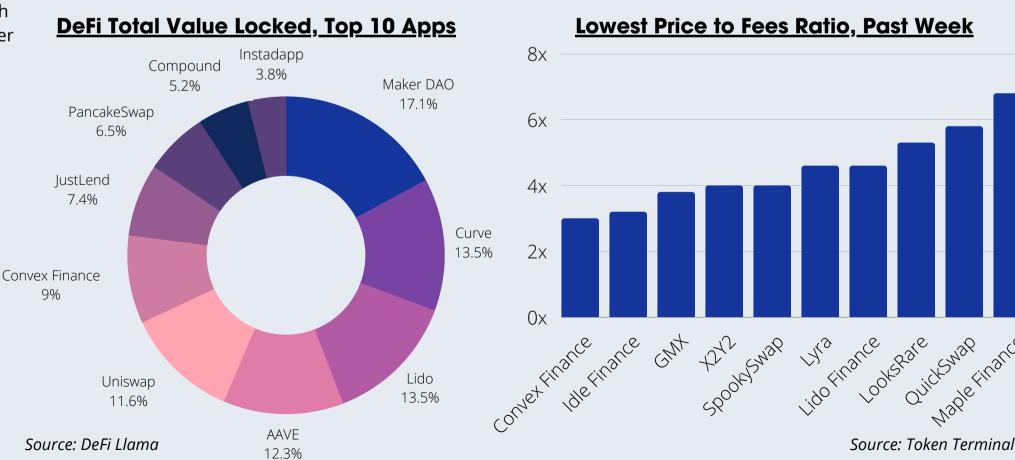
The DAO has begun taking initial steps to allocate \$500 million of its stablecoin reserves into shortterm US treasury bonds and investment-grade corporate bonds. Last week, through a governance proposal, the DAO approved a \$1 million pilot transaction. DAO members discussed the move as a way to strengthen the project's balance sheet with exposure to low-risk liquid tradfi assets. The DAO has partnered with asset advisor firm Monetalis for this allocation. According to the team, the allocation will be an 80-20 split between treasuries and corporate bonds. Currently, Dai is the fourth largest US dollar stable coin with a market cap of over \$6.3 billion. If this initiative is successful, other decentralized stablecoins may seek similar tradfi banking partnerships, which may help provide additional avenues for inflows in the future, similar to USDT and USDC.







Source: Token Terminal



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Stablecoin Origins & Purpose

Stablecoins are a sector of cryptocurrencies which attempt to peg value to \$1, typically using an external reference, such as USD or EUR. The main types of stablecoins include; fiat-backed, \$200b crypto-backed, algorithmic, or hybrid collateralization.

Tether (USDT) was initially created in 2014 to act as a potential hedge against market volatility, as well as increasing the transferability and convertibility of fiat currencies to cryptocurrencies. Tether's usage and supply grew substantially throughout the 2017 Bitcoin bull run, which significantly increased adoption of USDT trading pairs on crypto exchanges. As scrutiny increased over Tether's reserves, competing projects like Circle's USD Coin (USDC) arose with a focus on increased transparency. Today, most fiat-backed stablecoins, including Tether, release monthly reserve attestations.

Fiat-Backed

The two largest stablecoins by circulating supply, USDT and USDC, are both backed by USD reserves and/or USD equivalents held in third-party financial institutions. Issuing these types of stablecoins directly from the servicer also requires KYC/AML compliance and minimum capital requirements.

Crypto-Backed

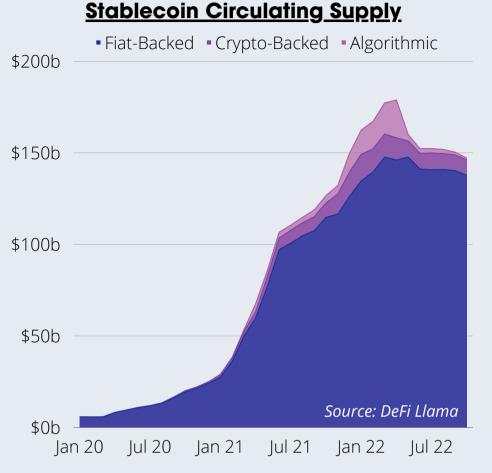
Crypto-collateralized stablecoins require on-chain management with the use of smart contracts, which also allows for 100% transparency of reserves and collateralization levels. Most crypto-backed stablecoins do not have KYC/AML or minimum capital requirements for initialization but do require overcollaterization of loans to buffer against market volatility. If these loans fall below the required collaterization level, they are liquidated.

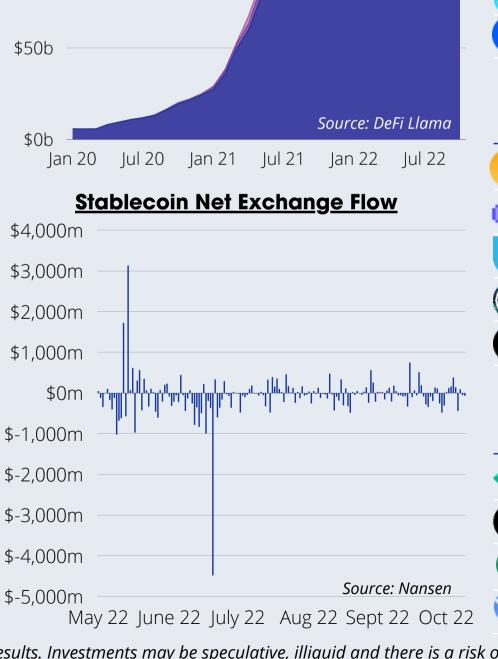
<u>Algorithmic</u>

Of all stablecoin types, algorithmic or seigniorage-style stablecoins have had the most difficulty maintaining a \$1 peg, historically. This stablecoin type does not require collateral and are managed on-chain via smart contracts. Algorithmic stablecoins *will* increase or decrease the circulating supply to maintain stablecoin value.

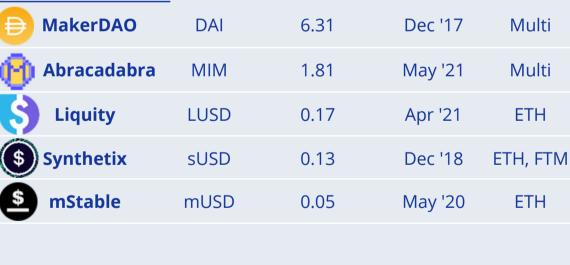
Tether Redemptions & Reserves

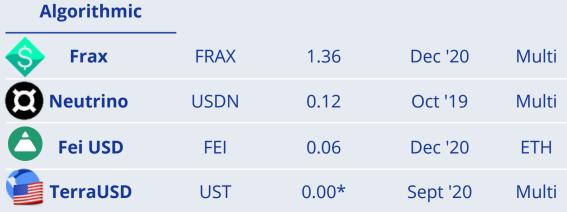
Tether experienced about \$19 billion in redemptions, approximately 20% from the peak, since the Terra and UST algorithmic stablecoin implosion in mid-May. Earlier this year, Tether saw increasing scrutiny regarding the components of it's reserve holdings, including a nearly 25% slice of commercial paper. Going forward, Tether will be replacing the MHA Cayman accounting firm with BDO Italia and will publish monthly attestations of stablecoin reserves. According to the latest attestation of reserves, commercial paper holdings have declined to 12% of the total reserves. Tether has said they plan to reduce these holdings to zero by the end of the year, as well as plans for a full audit through BDO Italia. As of September 30th, the Tether reserves now hold 58% US Treasury Bills, per Paolo Ardoino, Tether's CTO. \$-5,000m





Fiat-Backed	Ticker	Supply (\$, bn)	Launch	Chain
Tether	USDT	68.42	Sept '14	Multi
(§) Circle	USDC	45.39	Sept '18	Multi
Binance	BUSD	21.65	Sept '19	Multi
Paxos	USDP	0.90	Sept '18	ETH, BSC
TrueUSD	TUSD	0.89	Jan '18	Multi
Gemini	GUSD	0.32	Sept '18	ETH
Huobi	HUSD	0.21	Nov '18	ETH, SOL
Crypto-Backed				
MakerDAO	DAI	6.31	Dec '17	Multi







On-Chain Commentary, Decentralized Finance (DeFi) Commentary, Traditional Market Commentary: Source: Valkyrie Investments, Inc.

Coin Prices, Market Capitalizations, and Returns: Source: Valkyrie Investments, Inc., TradingView, Messari. All returns represent total return for stated period. Coin Logos: Source: cryptologos.cc

Annualized Issuance, Staking Yield, Volatility, and Sharpe Ratio: Source: Valkyrie Investments, Inc., Messari, StakingRewards.com. ETH staking rewards values are representative of the network post-Proof-of-Stake transition.

Bitcoin Fear and Greed Index Source: Valkyrie Investments, Inc., alternative.me and represents a multifactorial sentiment analysis index of volatility, market momentum and volume, social media, bitcoin market cap dominance, and Google trends

Bitcoin Monthly Average Hashrate, Bitcoin 30-Day Rolling Volatility: Source: Valkyrie Investments, Inc., CoinMetrics

Bitcoin Weekly Moving Averages: Source: Valkyrie Investments, Inc., TradingView - INDEX:BTCUSD

Stablecoin Origins & Purpose, Fiat-Backed, Crypto-Backed, Algorithmic, Tether Redemptions & Reserves: Valkyrie Investments, Inc., Tether Operations, CoinMetrics, Circle, and Paxos

Stablecoin Circulating Supply: Source: Valkyrie Investments, DeFi Llama - list and examples shown are non-exhaustive, intended for illustrative purposes only.

Stablecoin Net Exchange Flow: Source: Valkyrie Investments, Inc., Nansen and represent wallet inflows and outflows of Tether, USD Coin, Binance USD, PAX, and Huobi USD through crypto exchanges, including but not limited to; Binance, Curve.fi, AnySwap, Crypto.com, Uniswap, Hop Protocol, OKEx, Kucoin, dYdX, Coinbase, Kraken, Huobi, FTX, Gemini, FTX US, CoinList, SushiSwap, Gate.io, Balancer, BitMEX, Bitfinex, Bittrex, Binance US, Bitstamp, BlockFi, Paxos, Celsius, Alameda OTC, Poloniex, HitBTC, Bancor, Kyber, and ShibaSwap.

List and examples shown in the Stablecoin table are non-exhaustive, intended for illustrative purposes only. Chain data sourced from CoinMarketCap. "Multi" description can include Ethereum, Solana, Binance Smart Chain, Algorand, Tron, Fantom, Polygon, Avalanche, Arbitrum, Secret, Terra, Moonriver, Velas, and Harmony. Coin Logos: Source: cryptologos.cc

DeFi Total Value Locked, Top 10 Chains, DeFi Total Value Locked: Source: Valkyrie Investments, DeFi Llama - list and examples shown are non-exhaustive, intended for illustrative purposes only.

Top Protocol Revenue, Past Week, Lowest Price to Fees Ratio, Past Week: Source: Valkyrie Investments, Token Terminal - list and examples shown are non-exhaustive, intended for illustrative purposes only.

Decentralized Exchange (DEX) Volume: Source: Valkyrie Investments, Dune Analytics - Defined as total reported volume for the specified DEX in the specified time period. "Other" category includes the following DEXs: airswap, Bancor Network, clipper, DDEX, DefiPlaza, DFX Finance, DODO, dYdX, Gnosis Protocol, IDEX, Indexed Finance, Kyber, LINKSWAP, Loopring, mStable, Oasis, PowerIndex, Shell, xSigma

"Indicies" prices and returns: Source: Valkyrie Investments, Inc., MarketWatch. "S&P 500" provided by Standard & Poor's and is a stock market index tracking the performance of 500 large companies listed on stock exchanges in the United States, "Nasdaq 100" provided by NASDAQ OMX Group and includes 100 of the largest domestic and international non-financial companies listed on the Nasdaq Stock Market based on market capitalization. "Russell 2000" provided by FTSE Russell and is a small-cap stock market index that makes up the smallest 2,000 stocks in the Russell 3000 Index. "Dow Jones Ind." provided by S&P Dow Jones Indices and is a price-weighted measurement stock market index of 30 prominent companies listed on stock exchanges in the United States. "Gold" provided by NYMEX - CME Group and is a continuous futures product. All returns represent total return for stated period.

"Commodities" prices and returns: Source: Valkyrie Investments, Inc., Wall Street Journal. Bloomberg Commodity Index provided by Bloomberg and tracks prices of futures contracts on physical commodities on the commodity markets. All returns represent total return for stated period.

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