

Key Takeaways

- Leading inflationary economic indicators have turned down sharply
- The Fed continues on a hawkish path with a potential terminal rate >7%
- Although investors remain optimistic, uncertainty and volatility continue

Traditional Market Commentary

Post-pandemic and stimulus slowdown indications continue to mount. Rising rates and mortgage costs have crushed YoY home sales, which are now at lower levels than March 2020. The Manheim used car index has declined significantly since the peak in early 2021. Global freight costs have also declined to a 23-month low according to the Freightos Baltic Index (FBX) and, based on the Kansas City Fed manufacturing survey, expected delivery times have shifted from scarcity to glut. With the midterms now mostly resolved, Congress is set for a likely gridlock, which has historically led to decreased government discretionary spending. Declines in government spending will also likely aid in a hastened reduction of inflation.

Despite declining economic indicators in housing, shipping, and manufacturing, several Fed governors continue to maintain the status quo with both the expectation of 75bp hikes and a terminal rate of at least 5.00% or more. This attitude may begin to adjust at the next FOMC two-day meeting on December 13th and 14th. Additionally, the 2/10 treasury yield curve, now pushing below a multi-decade low of -0.75%, continues to indicate recessionary conditions. The Fed needs to thread the needle of combating inflation while not over tightening, in order to achieve a milder recession and softer landing than expected, but that prospect is looking improbable.

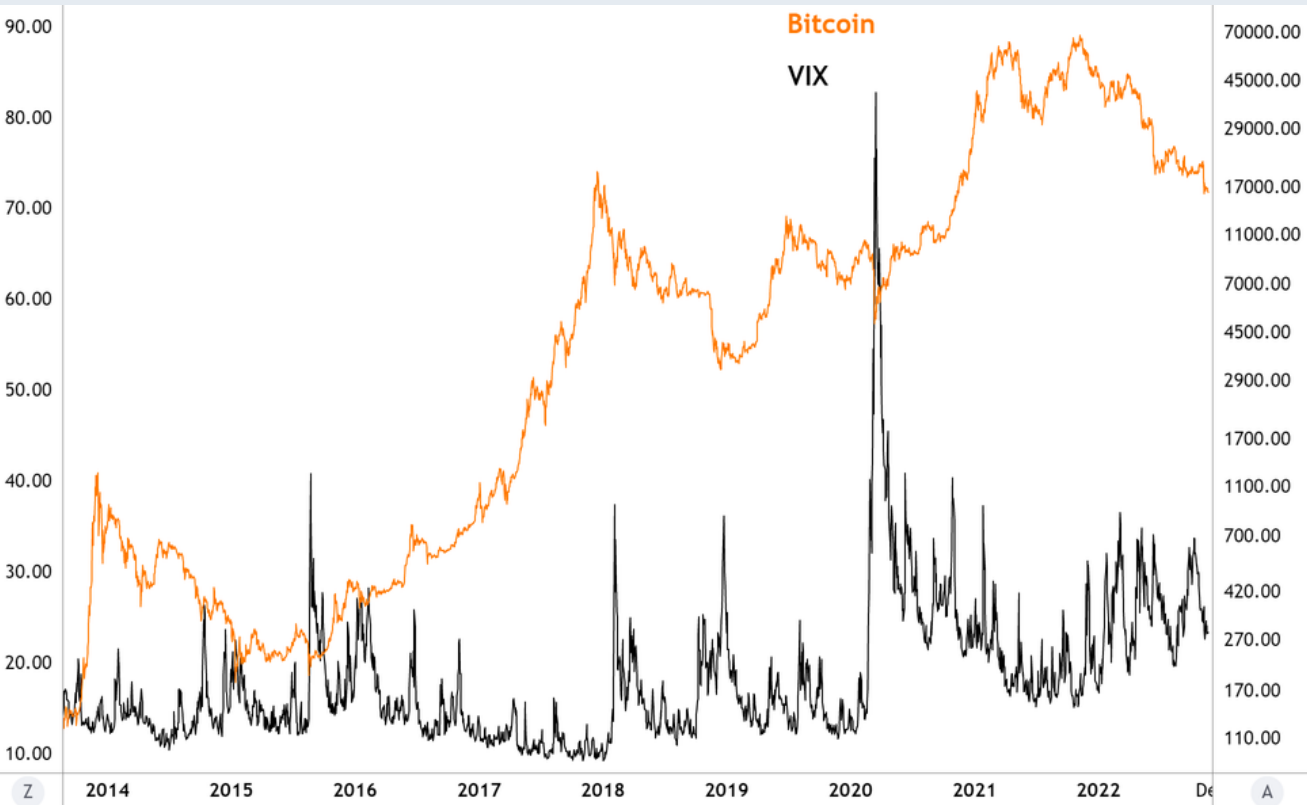
As Investors give thanks this week, optimism remains as the S&P 500 continues attempts to breach above the 200-day moving average for the first time since April 2022. Alternatively, DXY and oil have had strong reversals to the upside, likely quelling any near term equities rally. A brief confusion on the Polish border last week also hinted at the very real risk of throwing NATO headfirst into the Russian war in Ukraine. With so much uncertainty swirling, both domestic and abroad, volatility is likely to continue into the new year.

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Indices	Ticker	Price (\$)	Returns (%)				
			1 week	1 month	3 month	YTD	1 year
S&P 500	SPX	3951	-0.15	4.06	-4.51	-17.10	-15.62
Nasdaq 100	NDX	11643	-0.62	1.73	-9.79	-28.75	-29.02
Russell 2000	RUT	1839	-1.21	5.17	-4.02	-18.11	-21.13
Dow Jones Ind.	DJI	33735	0.59	7.10	2.03	-7.16	-5.29
Commodities							
Crude Oil	CL1	76.75	-9.93	-9.59	-15.35	1.72	0.34
Brent Crude	BRN00	83.81	-9.42	-8.45	-13.37	7.53	5.42
Natural Gas	NG00	7.07	9.93	36.32	-27.74	96.15	45.01
Unleaded Gas	RB00	2.35	-7.03	-6.26	-18.65	5.95	4.45
Gold	GC00	1743.40	-1.62	5.40	-0.34	-4.76	-3.39
Silver	SI00	20.81	-5.38	8.57	10.35	-10.79	-13.92
Copper	HG00	3.58	-6.56	4.45	-1.83	-19.56	-18.35
Corn	C00	667.00	1.41	-2.24	6.17	12.53	15.65
Wheat	W00	809.75	-1.07	-3.55	3.86	5.06	-5.74
Bloomberg Commodity Index	BCOM	114.19	-2.08	2.30	-7.44	15.15	11.85
Bitcoin	BTC	16105.36	-0.93	-21.40	-24.73	-65.15	-73.05



Source: TradingView

News Review

- [JP Morgan Officially Registers a Cryptocurrency Wallet Trademark](#)
- [Crypto Cold Wallets in Ledger, Trezor Sales Moon After FTX Collapse](#)
- [FTX Japan May Resume Withdrawals by December: Report](#)
- [FTX Says It Owes Over \\$3 Billion to Its 50 Largest Creditors](#)
- [House Committee Calls on SBF, Binance to Testify on FTX Collapse](#)
- [USDC Stablecoin Issuer Circle Says Businesses Can Accept Apple Pay](#)
- [USDC Stablecoin Issuer Circle Reveals FTX Exposure, Says USDC Conversions on Binance Have Hurt Projections](#)
- [Decentralized Exchange Uniswap Says It Now Collects Certain Data From Users](#)
- [DeFi Giant MakerDAO Speeds Up DAI Transactions and Withdrawals, Expands to Arbitrum, Osmosis](#)
- [Avalanche Founder Says Company Has 'Very Little Exposure' to FTX](#)
- [Startup Arkon Energy Raises \\$28M to Further Expand Into Bitcoin Mining](#)
- [Genesis' Crypto-Lending Unit Is Halting Customer Withdrawals in Wake of FTX Collapse](#)
- [Crypto Lender Genesis Had Sought Emergency Loan of \\$1 Billion](#)
- [Bernstein Says Grayscale Bitcoin Trust Is Protected From Fallout at Sibling Company Genesis Global](#)

Key Takeaways

- The mass CEXodus continues as users move to self-custody digital assets
- Hardware wallet manufacturers have reported a record bump in sales
- Miner profitability continues to get squeezed with falling BTC prices and rising HR

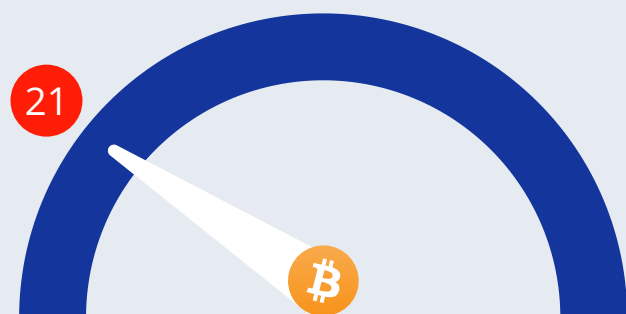
On-Chain Commentary

Users have continued to flee centralized exchanges (CEXs) over the past week, following the monumental implosion of FTX.com, FTX.us and Alameda Research. Although the proof of reserves statements have been issued by nearly every CEX to try and assuage concerns of users, fear of broader contagion remains high. Unlike tradfi, investors can near instantaneously pull funds in-kind, directly to self-custody on hardware or software wallets. Both hardware wallet manufacturers Ledger and Trezor have reported a significant increase in device sales since November 7th. Based on available on-chain data from Glassnode, since the beginning of November, over 150,000 BTC and 2.45 million ETH have been removed from centralized exchanges. This behavior and sentiment suggests a growing distrust towards CEXs and a renewed belief in the future of decentralized protocols.

On the Bitcoin network, mining hash rate (HR) and network difficulty have continued to push all-time highs, despite the decline in bitcoin price. Together, this continues to push mining profitability further and further to new all-time lows. According to Luxor Technologies, hash price, or the expected value of 1 TH/s of hashing power per day, now sits at \$56, down 50% from July 2022. Eventually, as more and more miners become unprofitable, mining hardware begins to shut off and hash rate begins to decline. The continued rise in hash rate is suggestive of the remaining efficient miners continuing to find profitable operating margins based on overhead and power costs.

Bitcoin Fear and Greed Index

Multifactorial Market Sentiment Analysis

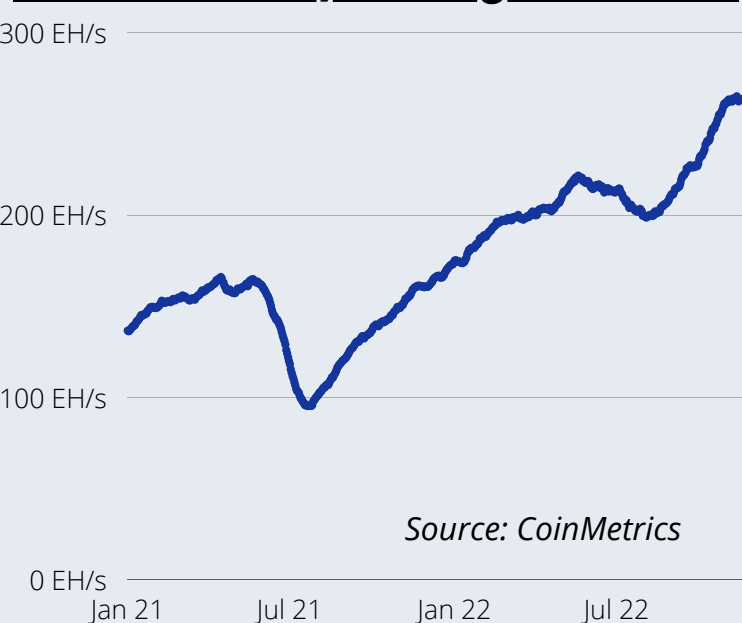


Last Week: 24 Last Month: 20

Source: Alternative.me

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Bitcoin Monthly Average Hashrate

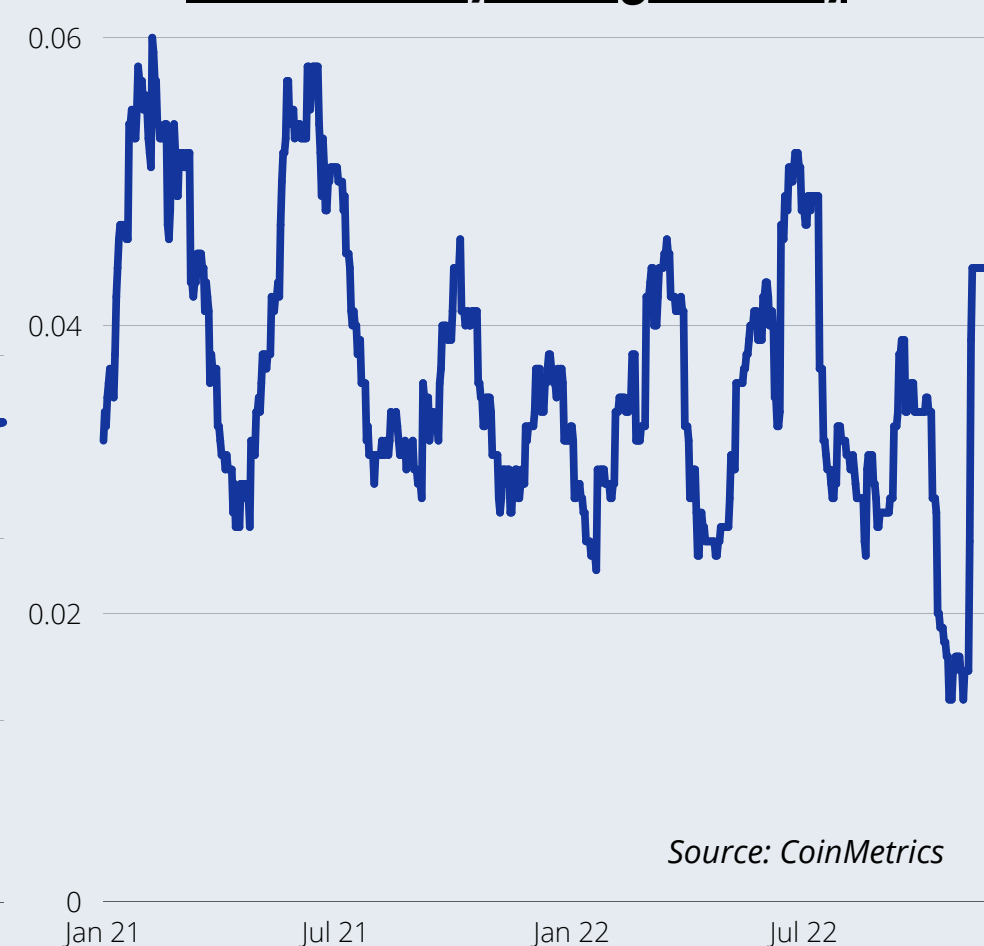


Source: CoinMetrics

Past performance is not indicative of future results. Investments may be speculative, illiquid and there is a risk of total loss. There is no guarantee that any specific outcome will be achieved.

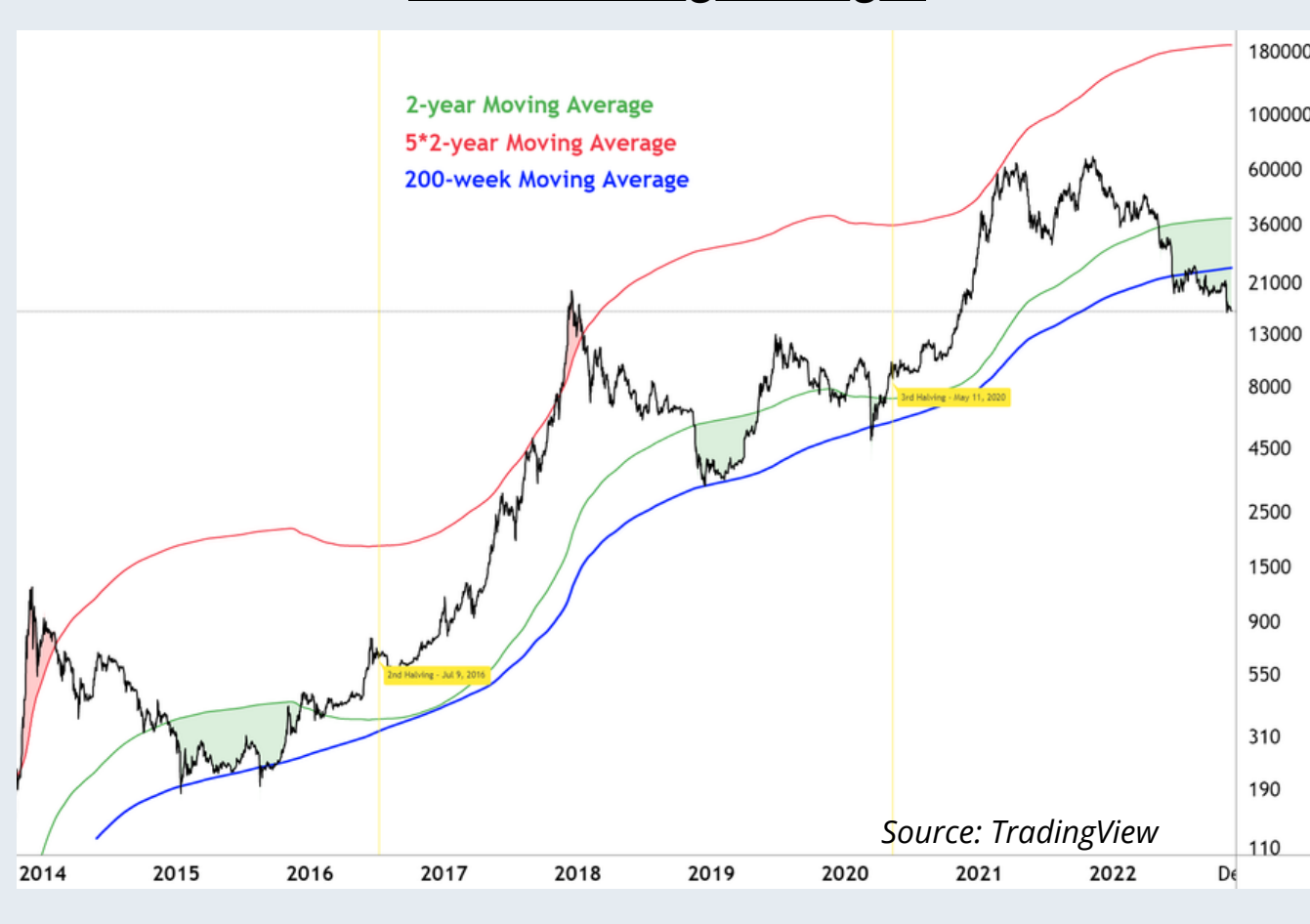
Crypto	Ticker	Price (\$)	Returns (%)					M Cap (bn)	Annualized			
			1 week	1 month	3 month	YTD	1 year		Issuance (%)	Stake Yield (%)	Volatility	Sharpe
Bitcoin	BTC	16105.36	-0.93	-21.40	-24.73	-65.15	-73.05	309.44	1.75	N/A	0.67	-1.69
Ethereum	ETH	1130.17	-0.88	-28.14	-30.45	-69.25	-74.41	138.30	0.16	4.65	0.89	-1.01
Binance Coin	BNB	259.70	-1.59	-20.26	-13.43	-49.27	-57.04	41.54	0.00	4.13	0.75	-0.81
Polygon	MATIC	0.81	-0.12	-10.85	-0.62	-68.14	-51.63	7.03	3.20	7.32	1.28	0.14
Polkadot	DOT	5.23	-1.06	-21.16	-29.39	-80.40	-87.59	5.95	8.06	14.01	0.98	-1.62
Tron	TRX	0.05	2.64	-18.58	-21.79	-31.82	-51.38	4.74	0.85	3.15	0.73	-0.83
Solana	SOL	11.87	-3.18	-63.54	-66.51	-93.01	-94.56	4.30	4.53	5.80	1.18	-1.83
Avalanche	AVAX	12.02	-1.19	-37.65	-46.71	-89.02	-90.45	3.61	5.60	8.76	1.19	-1.06
Cosmos	ATOM	9.13	-2.25	-36.26	-17.72	-71.86	-68.99	2.61	13.28	20.54	1.23	-0.33
Algorand	ALGO	0.25	-2.78	-30.63	-17.92	-85.01	-86.48	1.77	4.05	6.72	0.95	-1.02
Near	NEAR	1.53	-2.20	-50.63	-62.76	-89.58	-84.09	1.27	6.33	10.74	1.35	-0.67
Fantom	FTM	0.17	0.58	-27.87	-41.78	-92.34	-92.09	0.44	2.96	6.69	1.40	-1.17
Zilliqa	ZIL	0.02	0.75	-31.74	-43.28	-71.63	-77.33	0.29	4.79	11.72	1.69	-0.30

Bitcoin 30-Day Rolling Volatility



Source: CoinMetrics

Bitcoin Moving Averages



Source: TradingView



Weekly Market Review - November 21st, 2022

Coin Spotlight: Avalanche (AVAX)

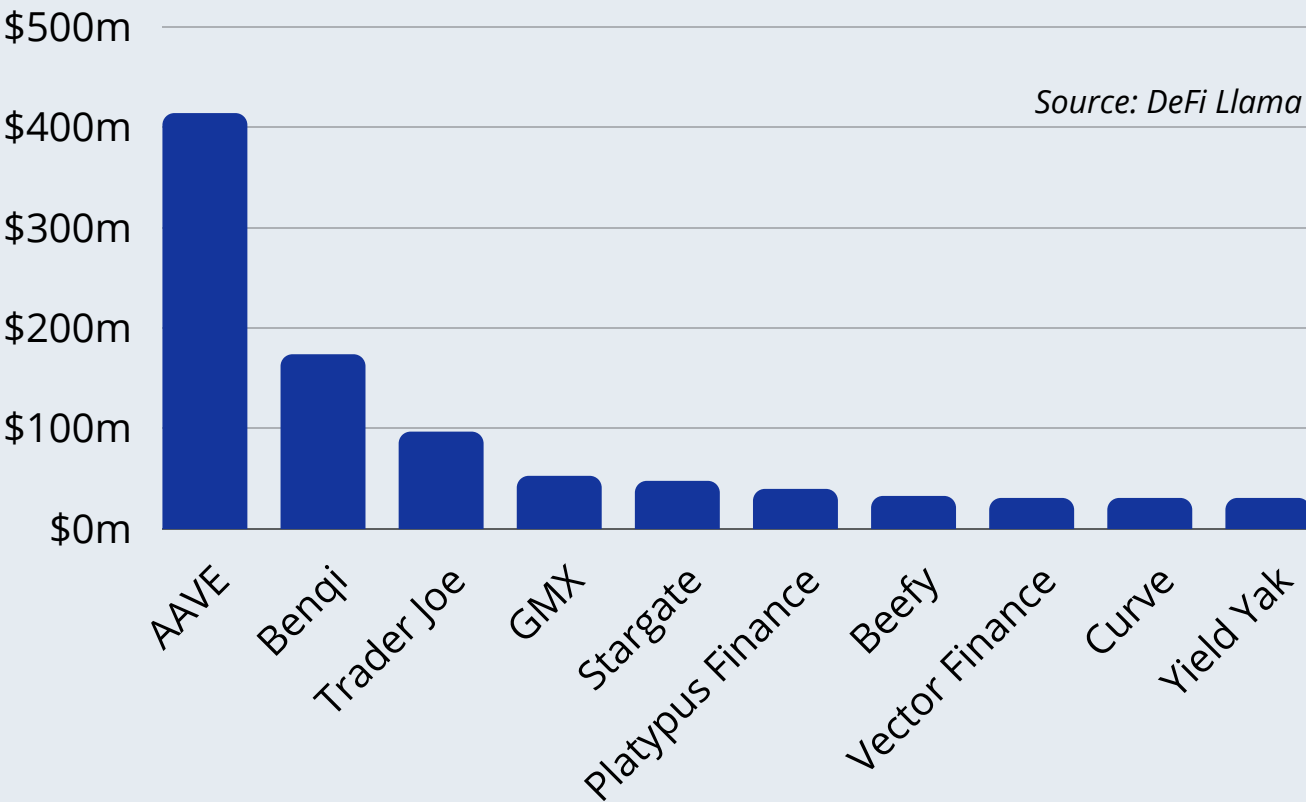
Avalanche is an open-source, proof-of-stake blockchain which aims to be highly scalable by dramatically decreasing smart contract transaction times and costs. The AVAX token is used for transaction fees, staking, and participation in decentralized finance (DeFi). The network concurrently operates three independent, task specific chains with different use cases; exchange (X-chain), platform (P-chain), and contract (C-chain). The C-chain also provides interoperability with Ethereum via an instance of the Ethereum Virtual Machine (EVM).

All of these chains also have the ability to interact with subnets, or customizable application-specific blockchains with unique governance. This concept can be understood as blockchains-as-a-service. Subnets went fully live on the Avalanche protocol in July 2022.

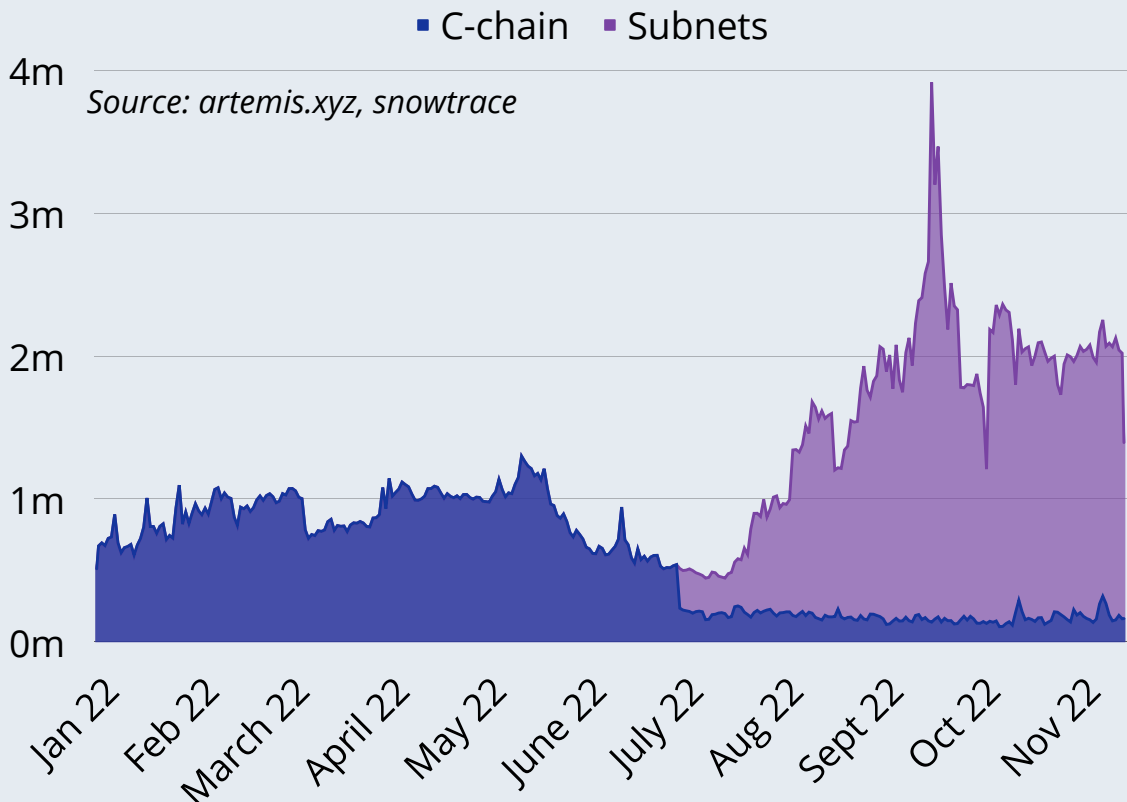
Subnets isolate application activity and do not share computational network loads with the primary Avalanche network, which enables lower latency, higher transaction throughput, and lower transaction costs. Subnets are kept secure by Avalanche chain validators, while being provided customizable incentives, depending on the subnet.

Web3-focused GameFi protocols currently dominate subnet activity. Two of the most popular games include DeFi Kingdoms, a cross-chain, play-to-earn MMORPG with utility-based NFTs and Crabada, an Avalanche-native, play-to-earn idle game with NFT functionality. Some of the future games launching on Avalanche subnets include; Ascenders, an open-world RPG, Ragnarok, a lore-driven metaverse RPG, and Shrapnel, a AAA first person shooter.

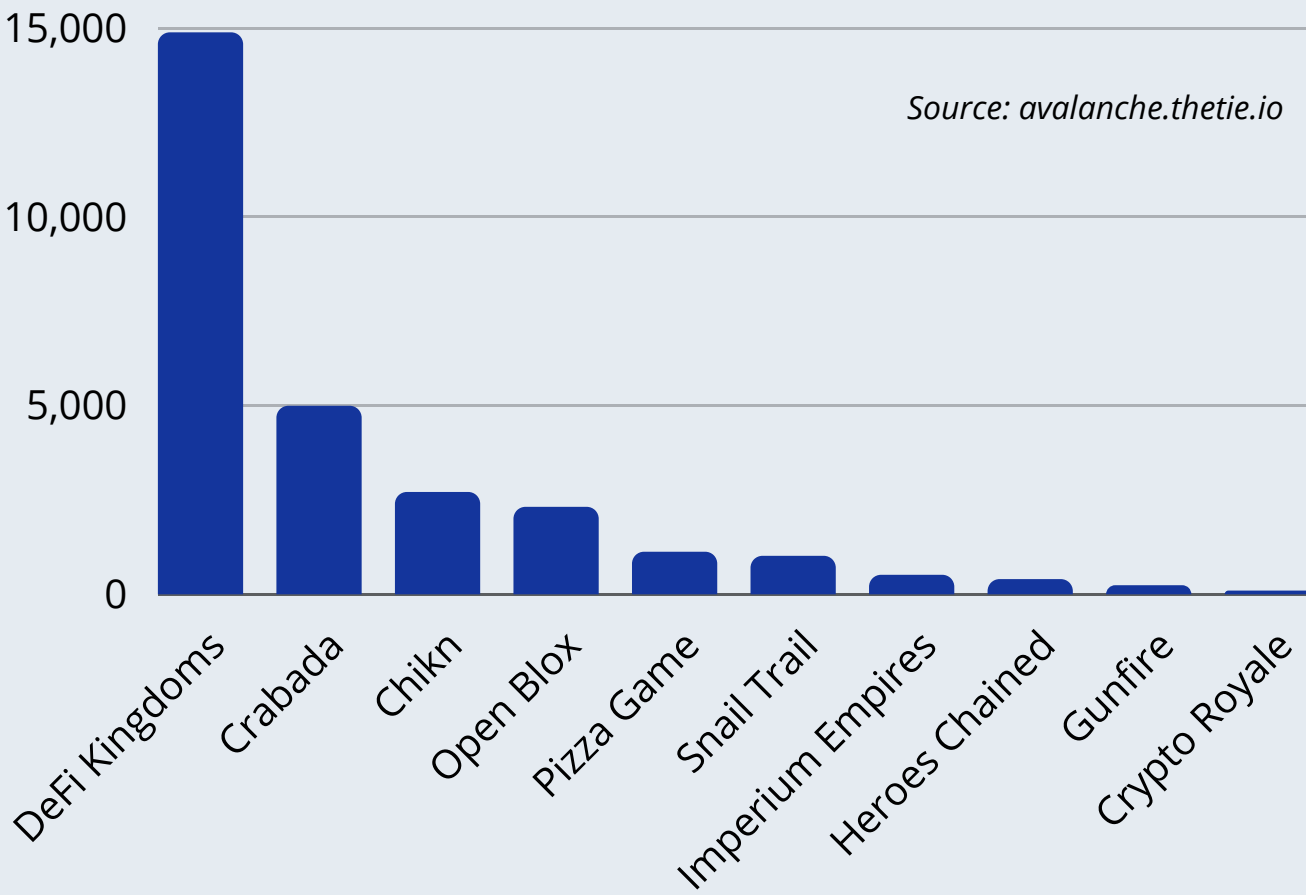
Avalanche Blockchain - DeFi Protocols by Total Value Locked



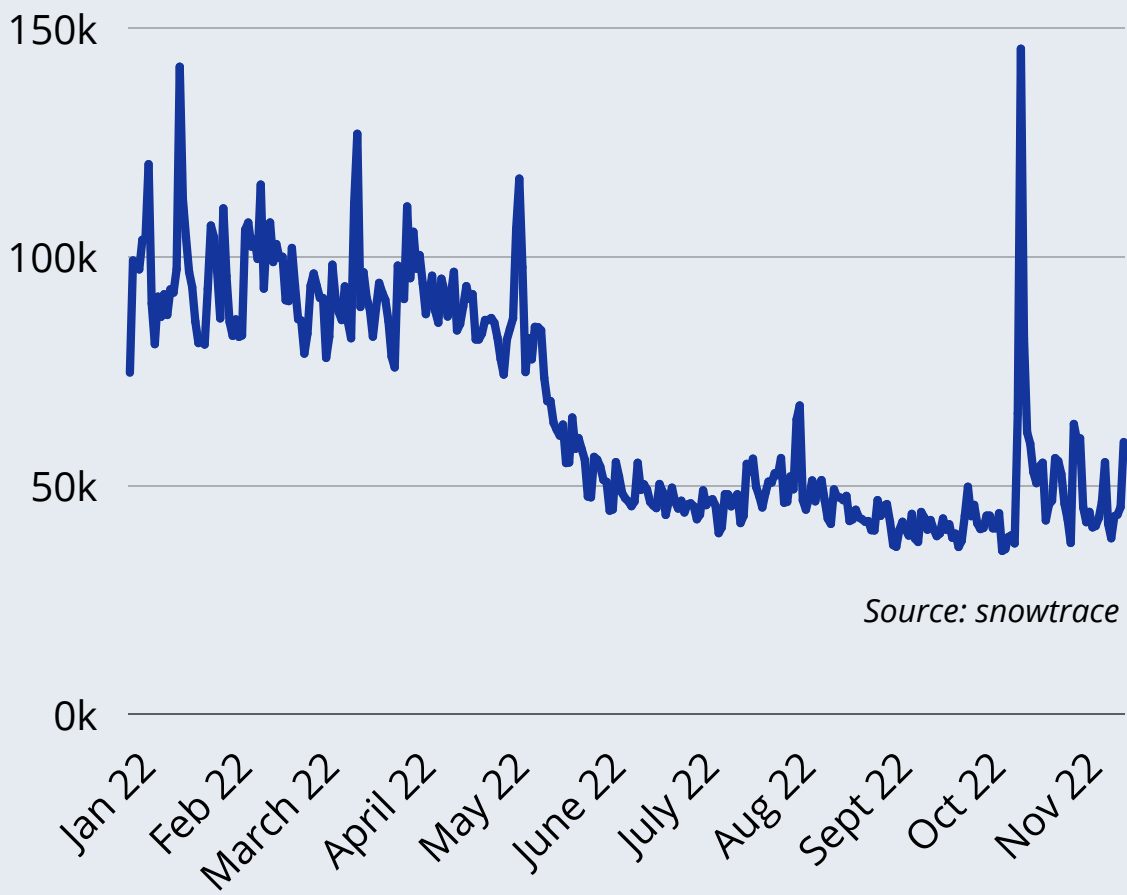
Avalanche Blockchain - Daily Transactions



Avalanche Blockchain - Monthly Active GameFi Wallets



Avalanche Blockchain - Daily Active Addresses





Weekly Market Review - November 21st, 2022

"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.

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

Coin Spotlight: Avalanche (AVAX): Source: Valkyrie Investments, Inc., Dapp Radar

Avalanche Blockchain - DeFi Protocols by Total Value Locked: Source: Valkyrie Investments, Inc., DeFi Llama

Avalanche Blockchain - Monthly Active GameFi Wallets: Source: Valkyrie Investments, Inc., avalanche.thetie.io

Avalanche Blockchain - Daily Transactions, Daily Active Addresses: Source: Valkyrie Investments, Inc., artemis.xyz, snowtrace

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