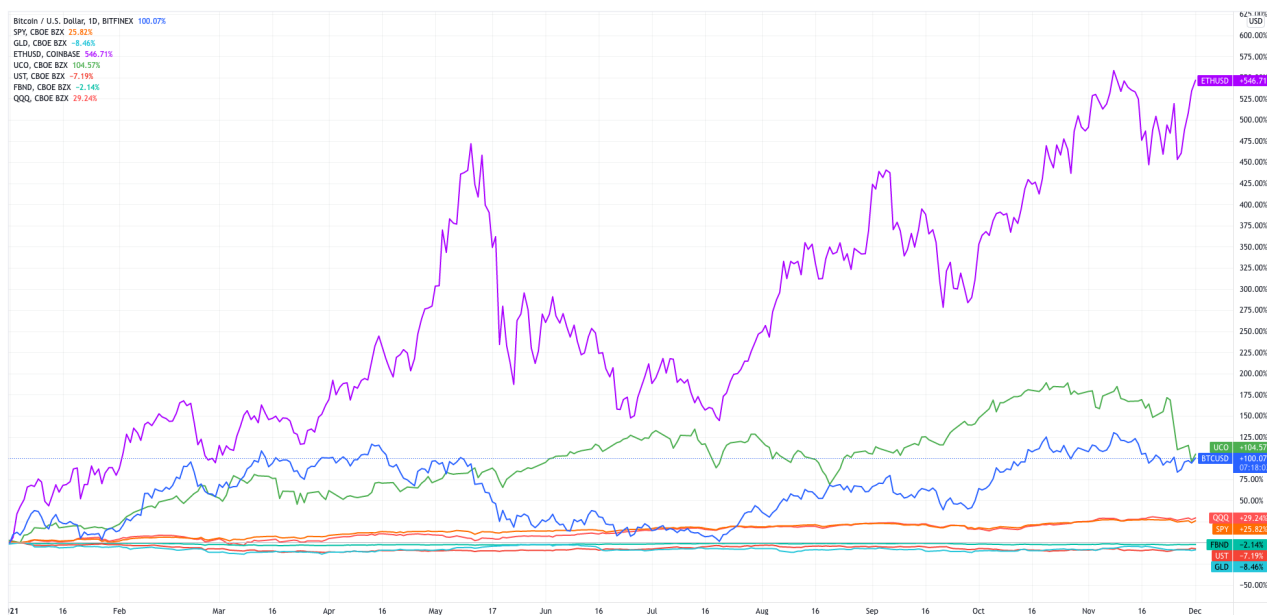


Digital Asset Markets Report

2H November 2021

- This week investors priced in a worst case scenario with the emergence of the new COVID-19 Omicron variant.
- Markets initially rebounded this week only to experience more volatility when Powell unexpectedly signaled that the Federal Reserve's bond-buying program could end sooner than expected.
- At the recent Senate Banking Committee, Powell also shared that it's time to stop describing inflation as "transitory".
- ETH/BTC has recently broken out from a multi-month consolidation, so if we do have end of year fireworks, we believe it could be led by Ethereum.
- It is important to note that Gold, a traditional hedge against inflation, is down 8% in the worst inflationary period we've had since the 1980's. We expect Bitcoin to continue capturing market share from Gold as it continues to prove that it should be the new standard to hedge against inflation.

YTD Returns



Asset	MtD*	QtD*	YtD*	Volatility (annualized)*	Sharpe (annualized)*	Correlation (to Bitcoin)**
Bitcoin	6.8%	18.3%	93.9%	81.66%	1.34	-
Ethereum	6.9%	39.9%	533.9%	109.84%	2.29	0.900
SPY	1.0%	4.9%	23.5%	12.58%	1.90	0.672
QQQ	2.5%	3.4%	15.9%	16.37%	0.95	0.525
GLD	1.2%	0.6%	9.2%	13.85%	0.79	0.545
UCO	29.8%	20.9%	95.7%	61.60%	1.43	0.762
FBND	0.1%	0.5%	2.1%	3.62%	0.95	-0.649
UST	2.4%	0.4%	6.6%	10.67%	0.79	-0.688

Sources: Glassnode, AlphaVantage

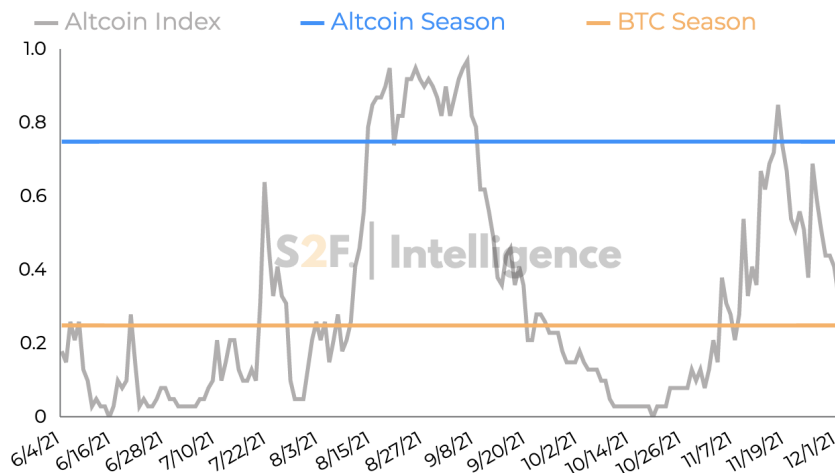
Assets: SPY = S&P500, QQQ = NASDAQ, GLD = Gold, UCO = Crude Oil, FBND = Total Bond Market, UST = 7-10 YR Treasury

*as of November 30, 2021

**last 90 days

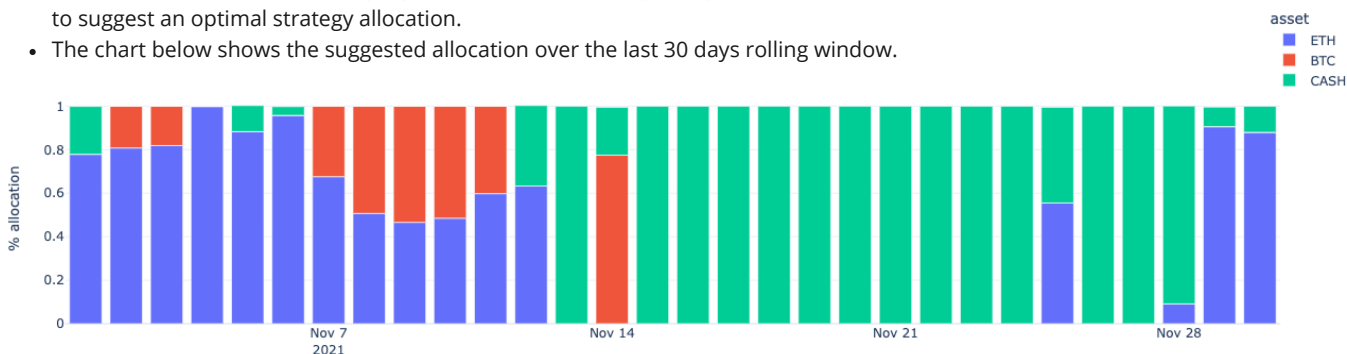
Charts data are as of December 1st (TradingView)

S2F Alt-Season Indicator



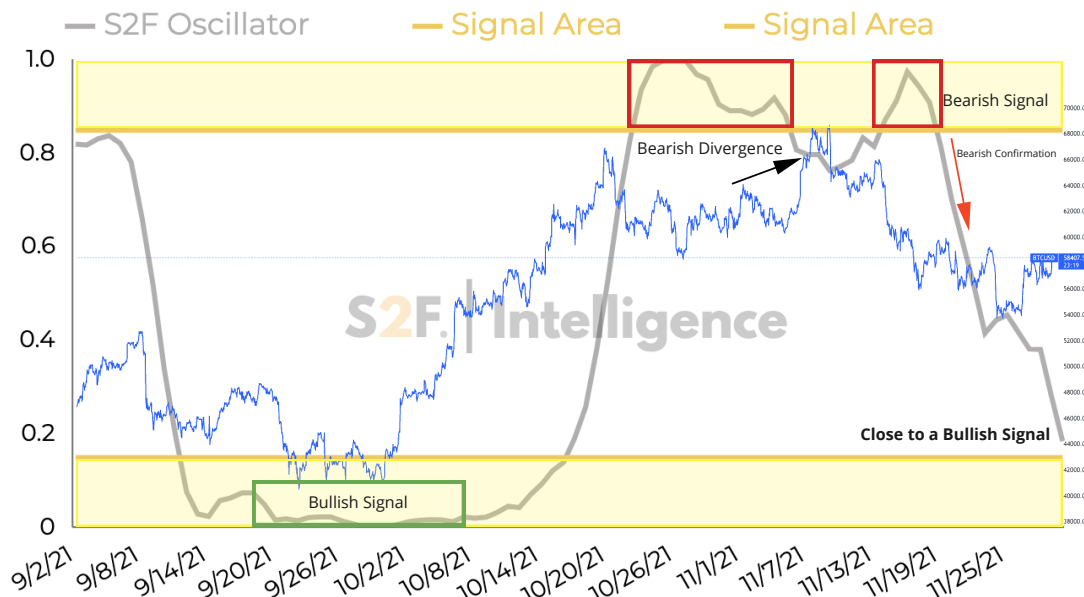
S2F Momentum Model (pMV)

- The S2F Momentum Model is a proprietary model that compares price momentum of BTC vs ETH vs USD over a rolling window to suggest an optimal strategy allocation.
- The chart below shows the suggested allocation over the last 30 days rolling window.



S2F Oscillator

The S2F oscillator is designed to identify key moments in BTC price action. The upper and lower Signal Areas are significant in predicting both upward and downward movements. Last report, we saw a bullish divergence forming and price rebounded until concerns surrounding the virus re-emerged. The oscillator is currently trending lower as we near a potential bullish signal - if we see a similar bottoming signal like the one in September, this could present a buying opportunity before BTC's price continues higher.



Volume & Transactions

	30d 24hr avg	1mo Sum	1y Sum	WoW Change	MoM Change
Spot	\$36.16B	\$1.09T	\$16.95T	1.41%	-4.38%
Futures	\$48.99B	\$1.47T	\$21.68T	-7.74%	-11.46%
On-chain (volume)	\$272.11B	\$8.16T	\$44.02T	-18.22%	23.32%
On-chain (transactions)	276,518	8,295,538	99,354,830	15.11%	1.54%

source: Glassnode

Options Activity

- Dec 17, 2021 Max Pain price: \$56,000
- BTC 25 day skew (put IV - call IV) continues to favor puts over calls in the short frame, with 1-week BTC 25D skew trading at 13% while 6-month skew is at 0%. -Genesis OTC desk

BTC Dec 17 2021 Options: Open Interest By Strike Price



Deribit

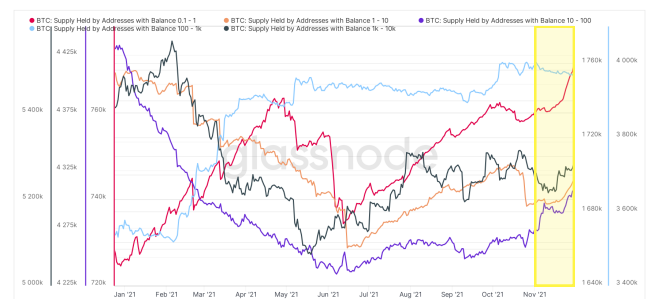
Notable News

- Bitcoin reached a new ATH this month, touching \$69,000 before falling to \$53,000 following reports on the Omicron Covid variant.
- President Bukele of El Salvador last week unveiled a plan to potentially issue \$1 billion in "Volcano Bonds" @ 6.5% yield. \$500 million would be used to purchase bitcoin, with the other half used to expand geothermal mining infrastructure and operational expenses.
- MicroStrategy has purchased an additional 7,002 bitcoins worth \$414.1 million, bringing its total holdings to 121,044. It paid an average price of \$59,187 per bitcoin.

Investor Activity (prior 2 weeks)

- 0.1-1 BTC: Accumulation
- 1-10 BTC: Accumulation
- 10-100 BTC: Accumulation
- 100-1k BTC: HODL Mode
- 1k-10k BTC: Accumulation

Bitcoin: Supply Held by Addresses with Balance 0.1 - 1k



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Technical Levels

- BTC broke below the 50d MA last week and rebounded slightly this week after regaining strong support around 53k.
- Last week's correction was the least severe we've seen in 2021; this echoes sentiments from our most recent report about the healthy nature of current price action.
- An important resistance sits around the 62-65k level. Once broken, BTC could once again begin a rally towards new ATHs.



Volume & Transactions

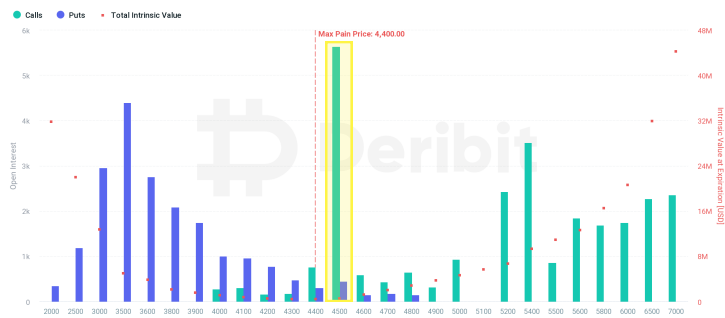
	30d 24hr avg	1mo Sum	1y Sum	WoW Change	MoM Change
Spot	\$20.50B	\$609.93B	\$11.40T	14.14%	-2.25%
Futures	\$26.00B	\$780.13B	\$9.78T	13.03%	2.11%
On-chain (volume)	\$8.54B	\$256.29B	\$2.33T	13.64%	18.64%
On-chain (transactions)	1,256,645	37,699,350	443,075,400	13.85%	3.55%

source: Glassnode

Options Activity

- Dec 17, 2021 Max Pain price: \$4,400
- ETH 25D skew (put IV - call IV) continues to favor puts over calls in the short frame, calls are favored on a longer 6-month horizon.
-Genesis OTC desk

ETH Dec 17 2021 Options: Open Interest By Strike Price



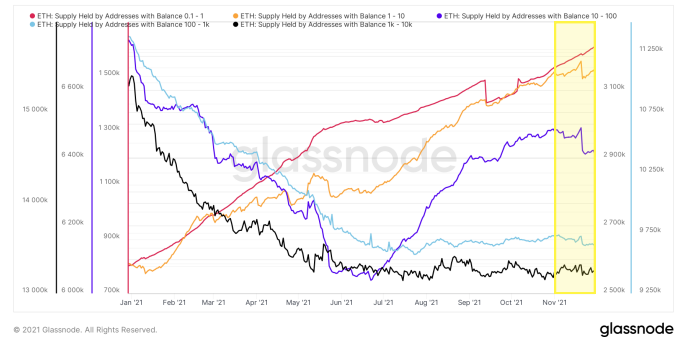
Notable News

- Ethereum surpasses 1 million total ETH burned (\$5 Billion) since the implementation of EIP 1559 in August.
- Per SEC filings during Q3, large institutions' holdings in Bitcoin Trust shares dropped 2.6%, while the number of Grayscale Ethereum Trust shares rose 19% compared to last quarter.
- Total Value Locked (TVL) in Ethereum's Layer 2 ecosystem has surpassed \$7 Billion dollars.
- StarkNet Alpha mainnet launched on Nov 29th - the first zk-rollup smart contract deployed was popular crypto wallet provider Argent.

Investor Activity (prior 2 weeks)

- 0.1-1 ETH: Accumulation
- 1-10 ETH: Accumulation
- 10-100 ETH: HODL Mode
- 100-1k ETH: HODL Mode
- 1k-10k ETH: HODL Mode

Ethereum: Number of Addresses - S2F Report



Technical Levels

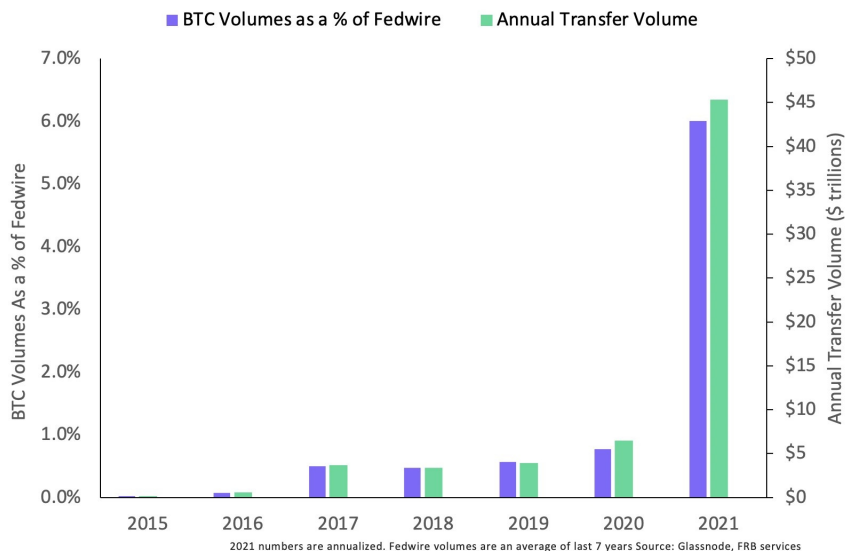
- ETH price action is clearly experiencing strong positive momentum.
- After breaking below the 50d MA last week, it re-established support around 4k and is currently trading near the ATH formed in the middle of November. We are on the cusp of a potential breakout to the upside--all eyes are on the key 5k level.



Bitcoin Annual Transfer Volume

- Bitcoin transfer volume has seen astonishing growth in 2021; YoY it has more than doubled all the previous years combined.
- The Bitcoin network currently handles almost 4x the annual transfer volume of VISA (with 1 Billion+ credit cards in global circulation), or 6% of the total transaction volume settled on the Fedwire Funds Service (the real-time gross settlement system of central bank money used by Federal Reserve).
- The growing adoption of the Lightning network has resulted in the most efficient year in terms of transaction fees since the inception of the Bitcoin blockchain. In the last seven days we've reached a 0.00105% fee of the total value transferred.

Bitcoin Is On Pace to Settle ~\$45 Trillion in 2021, Totaling Twice As Much Value As All Of Its Previous Years Combined



Source: @yassineARK

ETH Supply on Exchanges

- ETH supply on exchanges continues to trend downwards (bullish!). This on-chain trend began in August 2020 and the metric is currently close to a 3 years low. (Description of the supply on exchanges metric can be found in the glossary at the end of the report)
- Available supply continues to decline with 9.7+ million ETH currently locked in DeFi while an ever-increasing 8.4 million+ ETH migrate from circulation to the Ethereum 2.0 smart contract.

Ethereum: Percent Balance on Exchanges - All Exchanges



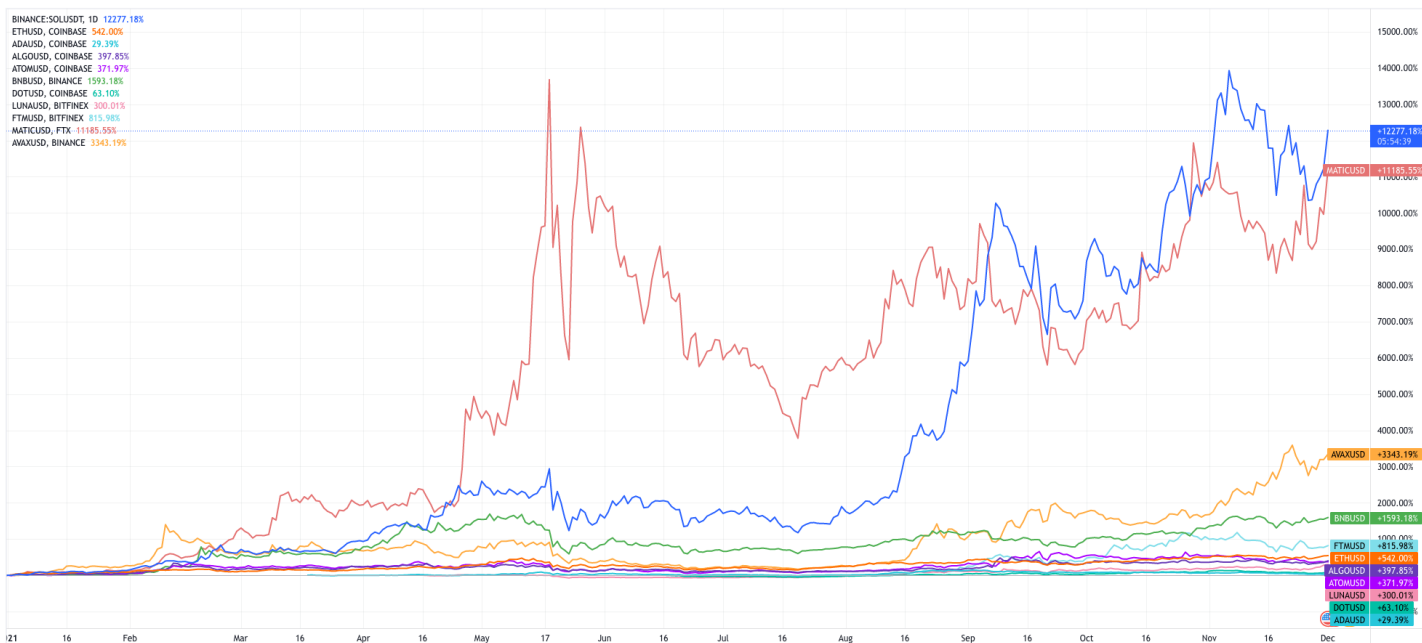
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After experiencing explosive growth in 2021, Solana is now available via a regulated trust launched on November 30th by Grayscale, the **Grayscale Solana Trust**.

Fireblocks, a leading provider of custody and settlement solutions for digital assets to more than 650 banks, hedge funds, and financial institutions, **has launched support for Avalanche**. Its institutional users can now access Avalanche's C-Chain and products built on it such as: Avalanche Bridge, Aave, Trader Joe, Pangolin and Wonderland. - *Avalanche*

YTD Performances



Market Cap, Liquidity, Activity

	Market Cap (2 Wk. Change)	Fully Diluted Market Cap	30d Avg Volume (2 Wk. Change)	Relative Liquidity (Avg Vol/Mkt Cap)	Active Addresses (2 Wk. Change)	Transactions [24hr Avg] (2 Wk. Change)	% of Supply Staked
Ethereum (ETH)	558.39B (9.63%)	551.02B	21.37B (-1.88%)	0.038271	488,740 (-20.20%)	1,282,158 (1.49%)	6.85%
Binance Smart Chain (BNB)	108.11B (10.04%)	105.55B	2.34B (6.79%)	0.021632	1,595,001 (-10.54%)	125,275,590 (25.43%)	79.73%
Cardano (ADA)	53.58B (-15.90%)	70.73B	2.26B (-5.63%)	0.042094	233,603 (44.57%)	204,633 (109.48%)	70.50%
Solana (SOL)	68.80B (1.06%)	116.93B	2.96B (-13.15%)	0.043042	N/A	N/A	77.37%
Polkadot (DOT)	37.58B (-8.64%)	41.20B	1.79B (-12.49%)	0.047735	26,974 (-29.54%)	9,683,474** (-32.39%)	53.15%
Terra (LUNA)	23.40B (19.75%)	53.86B	958.85M (12.66%)	0.040978	N/A	9,542 (30.32%)	38.40%
Avalanche (AVAX)	27.90B (38.93%)	48.72B	1.46B (78.99%)	0.052333	91,421 (71.81%)	510,513 (64.21%)	60.95%
Algorand (ALGO)	12.14B (10.65%)	19.74B	589.14M (27.57%)	0.048537	16,036,894* (5.94%)	1,383,830 (-26.11%)	47.67%
Polygon (MATIC)	14.25B (29.93%)	20.06B	965.91M (-18.14%)	0.067769	292,892* (9.42%)	7,993*** (2.04%)	27.84%
Cosmos (ATOM)	6.23B (-6.25%)	7.73B	55.38M (-91.85%)	0.088837	9,411 (89.62%)	19,528 (-0.04%)	63.20%
Fantom (FTM)	5.62B (-1.98%)	7.13B	684.27M (-18.09%)	0.121827	30,733* (6.46%)	703,113 (-1.72%)	63.82%

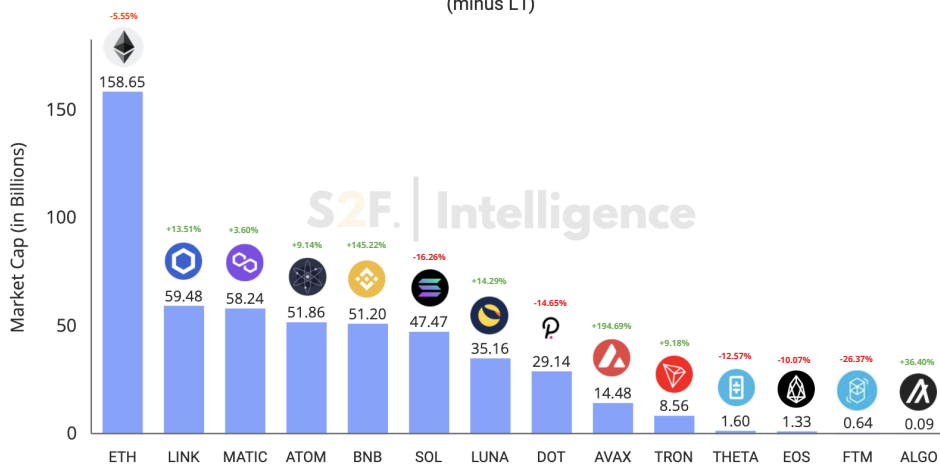
*Total addresses

**Transaction volume (24h)

***New Transactions (24h)

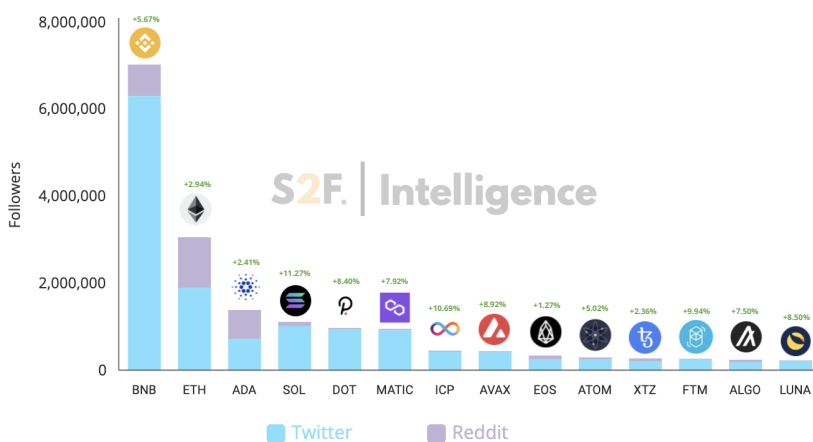
Source: Messari, Coingecko, Coinmarketcap, Blockchain Explorers

Market Cap of Ecosystems (minus L1)



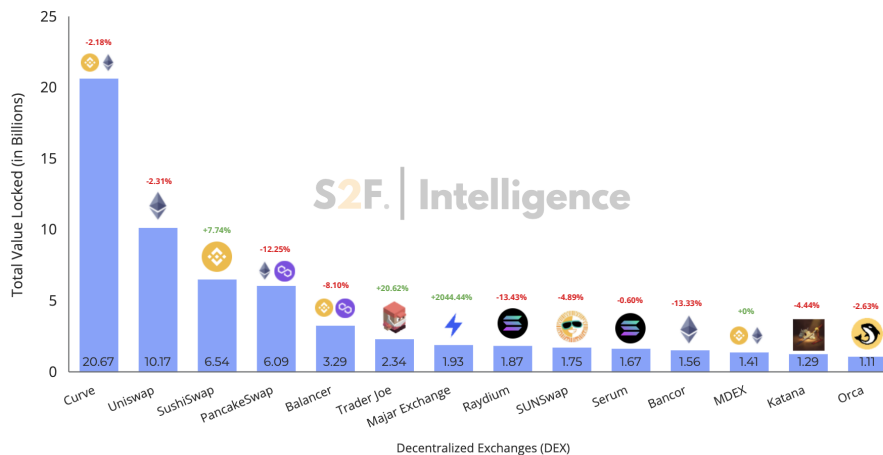
Growth % = 2wk change

Social Dominance



Source: Coinmarketcap, Coingecko

Top Decentralized Exchanges (DEX) by TVL



Source: defillama

Two protocols that have experienced parabolic growth in 2021 have been Solana (\$SOL) and Avalanche (\$AVAX). We have covered each of these in our previous reports but as they continue to become more mainstream we wanted to dive back into the markets and search for new opportunities that might have similar upside potential while still being undervalued.

This brings us to Fantom (\$FTM). FTM is a cryptocurrency that currently has a market cap around 5.7B dollars. Fantom seeks to be another top player in the the smart contract protocols that are competing for market share. The quality of Fantom's DeFi protocols and the interaction between them makes this one of the most interesting plays in DeFi right now. We will compare FTM with AVAX as they are both experiencing lots of growth in their overall protocols and DeFi offerings.

FTM vs. AVAX:

- Total Adresses: \$FTM 1.2m v \$AVAX 912k.
- Daily transactions: \$FTM 650k v \$AVAX 615k.
- Max TPS: \$FTM 36,000 v \$AVAX 6,500/subnet
- Gas Fees: \$1 worth of transactions on AVAX costs \$0.06 on FTM

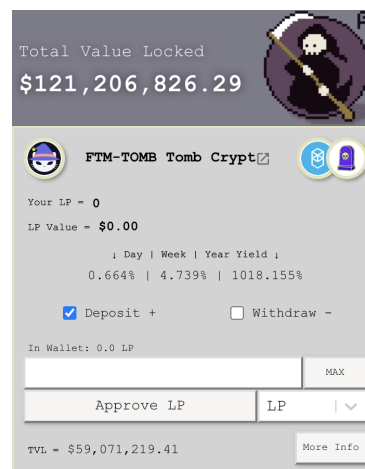


Before diving into what their DeFi ecosystem has to offer, it is important to note that if FTM were to reach the market cap of AVAX, that would be a multiple of **4.9x** and the token would appreciate from roughly \$2.25 to \$11.03.

It is also worth mentioning that FTM has nearly 300k more current active addresses than AVAX and has kept pace with AVAX during their massive growth phase.

There are many DeFi options on FTM, but one of the most interesting offerings is Reaper Farm.

- Reaper Farm is an "Auto Compounder" which is an algorithmic service that collects your farming rewards and reinvests them automatically (like auto dividend reinvestment, if you will).
- Currently offering attractive token pairing farms with no lockup period.
- You maintain exposure to both tokens that you have paired as well as earn more of the liquidity provider (LP) tokens.
- If FTM increases in price, the rewards in the farm are auto-compounded.
- That said, these types of platforms can be quite risky and are sometimes the victim of exploits. It is important that these be treated as experimental protocols.



The chart on the left shows the total TVL growth of the FTM ecosystem excluding Anyswap (a network bridging protocol).

It has experienced incredible growth starting in Q3 and Q4 of this year. We will be watching it closely as it continues to gather momentum.

S2F Intelligence - Highlights Looking Back

1H July: Bitcoin and Ethereum remained range bound between 32k - 35k so our team looked on-chain and saw that while the price technicals were looking bearish (along with social sentiment), we were observing huge net growth of entities entering the market--approximately 50k new users per day. As a result, we remained cautiously optimistic and this turned out to be the correct positioning.

2H July: Regarding Bitcoin, we noted that the 50d moving average was breached, and this should form a new support layer. If the 200d MA is crossed next, this would be a very positive signal regarding the resumption of a bull market. Several days later on August 9th, BTC broke through the 200d moving average and has only dipped below it once since then. Watching some of these indicators and communicating them in our reports provided accurate signal as BTC has appreciated 27% since it reclaimed the 200d MA in August.

We have included Solana (\$SOL) in every report we have published - since our 1H July report it has grown from a market cap of approx \$10B to \$71B. In October, we mentioned that \$SOL had seen its relative trading volume almost double to 10.37% as more funds were allocated away from BTC as it stalled in the second half of October. At the time, SOL had increased the 24hr volume by around a half billion from the 1H October Report.

2H August Report: In this report we covered the beginning of the Avalanche Foundation's Incentive Program that totaled around \$180M to spark growth in their DeFi projects. Our team also researched the capital flows on the AVAX Bridge and saw huge volume of deposits. Since reporting on this, the AVAX token price has gone from \$16 to an ATH of \$138 and is currently trading around \$112. The token is up 3,056% in a year.

We predicted an inflation spike in the medium term at the beginning of September. It has played out that inflation is currently around 6.2% and the speed of the FED taper is expected to increase.

Alt-Season Indicator: This indicator is based on a proprietary model that helps us identify the current market phase and adjust the allocation accordingly.

Max Pain Price: This is the strike price with the highest number of open contract puts and calls and the price at which would cause financial losses for the largest number of option holders at expiration.

Investor Activity: The amount of generalized attention a digital asset receives as well as how much the asset is traded. This also measures the activity of large and small holders.

Relative Liquidity: In financial markets, the degree of liquidity is a measure of how quickly an asset can be sold without negatively impacting the price of an asset.

Supply Staked: Measures the amount of the digital asset that are locked up with network "validators", or miners, that process the protocol transactions. "Stakers", aka investors that stake, can earn coins as rewards in exchange for securing the network.

Supply on exchange: Historically, the growth of the supply held on exchanges has been a proxy for negative sentiment, since there is a greater supply available to be sold on the market. The opposite holds true; when supply is being moved off exchanges, investors are shifting the investment horizon towards long-term and there is less supply on exchange to be sold.

DEX (Decentralized Exchange): This is a user-to-user marketplace that connects cryptocurrency buyers and sellers. Decentralized platforms are non-custodial, meaning a user remains in control of their private keys when trading on a DEX platform.

TVL (Total Value Locked): Representation of the total value of a crypto-asset that is "locked" in a DeFi (decentralized finance) application or smart contract. TVL can directly affect the yield and usability of these applications.

NFT (Non Fungible Token): NFTs, or non-fungible tokens, are unique assets that can't be copied, and are verified and stored using blockchain technology. They can include everything from intellectual property or music, but the current craze is centered mainly around digital artwork.

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