

Q3 State of Crypto: Market Pulse

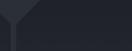
October 2022

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Key Takeaways Market Pulse is a compilation of key charts and insights by Binance Research, shedding light on the state of crypto



Market Overview

Crypto market capitalization increased by 8.4% QoQ in Q3 but overall sentiments remain poor.



Layer 1s

Blockchain activity generally trended lower in Q3. Spotlight was on the Ethereum Merge in September.



DeFi

Following a steep drop in May, DeFi Total Value Locked ("TVL") has yet to recover, and was range-bound between US\$50-60B in Q3.



NFTs

NFTs had a tough Q3 with sales down 73% QoQ. However, number of unique buyers held up and saw a slight uptick over the quarter.



GameFi

The gaming landscape is led by BNB Chain, Ethereum, and Polygon, with almost 70% market share (by number of games).



Market Overview

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Crypto Market Overview Market capitalization increased slightly in Q3

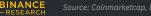
Global Crypto Market Capitalization





+8.4% QoQ

- Since the crypto market rout in Q2, crypto market capitalization has increased by 8.4% in Q3.
- That said, we are unlikely to be out of the woods yet given a uncertain macro environment and general risk-off sentiments. Crypto market capitalization fell -5.0% in Sep.



Crypto Fear and Greed Index Index notched higher but still indicates "extreme fear"

Fear and Greed Index





+10 points in Q3

- Sentiments have generally been in the "fear" zone throughout the whole of this year.
- The Fear and Greed Index indicated a slightly improvement in sentiments over Q3 (End-Sep = 21 vs. End-Jun = 11).

Crypto Unicorn Index Number of coins with >US\$1B market cap fell in Q3

Number of Coins with Market Cap above US\$1B





-19.4% QoQ

- The number of coins with a market cap more than US\$1B has fallen from 62 to 51 in Q3.
- The year-to-date high was at the start of the year when there were 118 coins above US\$1B market cap.

Performance of Largest Coins by Market Cap Top 3 coins held their spot in both 2021 and YTD

Top 10 Coin Performance (2017 to YTD)

	2017	2018	2019	2020	2021	YTD
	Bitcoin 1317.08%	Bitcoin -72.39%	Bitcoin 92.48%	Bitcoin 308.91%	Bitcoin 59.70%	Bitcoin -59.85%
	XRP 34096.50%	XRP -84.11%	Ethereum -2.99%	Ethereum 478.27%	Ethereum 397.84%	Ethereum -64.71%
2	Ethereum 8762.26%	Ethereum -81.94%	XRP -45.46%	XRP 24.75%	BNB 1258.62%	BNB -47.90%
← Decreasing Market Cap	Bitcoin Cash 451.97%	Bitcoin Cash -93.21%	Bitcoin Cash 26.19%	Litecoin 217.78%	Solana 10682.40%	XRP -44.31%
	Cardano 3400%	EOS -66.60%	Litecoin 37.44%	Polkadot 188.93%	Cardano 620.39%	Cardano -67.68%
	Litecoin 5019.14%	Stellar -73.92%	EOS 1.34%	Bitcoin Cash 73.63%	XRP 251.18%	Solana -81.37%
	IOTA 867.48%	Litecoin -86.39%	BNB 130.73%	Cardano 452.21%	Terra Classic 13310.47%	Dogecoin -64.95%
	NEM 29070.31%	Bitcoin SV 5.84%	Bitcoin SV 9.60%	BNB 180.23%	Avalanche 3408.97%	Polkadot -77.24%
	Dash 9377.84%	Tron -57.00%	Tezos 194.10%	Chainlink 542.13%	Polkadot 197.82%	Polygon -70.88%
	Stellar 17666.95%	Cardano -94.15%	Stellar -60.09%	Bitcoin SV 72.34%	Dogecoin 3389.64%	Shiba Inu -67.55%

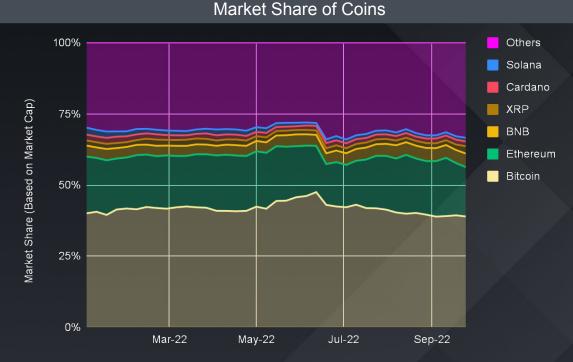
-64% YTD average performance

- BTC, ETH, and BNB remain the top 3 coins by market capitalization year-to-date ("YTD"), excluding stablecoins.
- XRP, BNB, and BTC witnessed the lowest YTD drawdowns among the top 10 coins.



Source: CoinMarketCap, Binance Research. Data as of 30 Sep 2022 Note: Table excludes stablecoins

Market Share of Coins BTC dominance fell, while that of ETH, BNB, XRP increased





-3% share for BTC in Q3

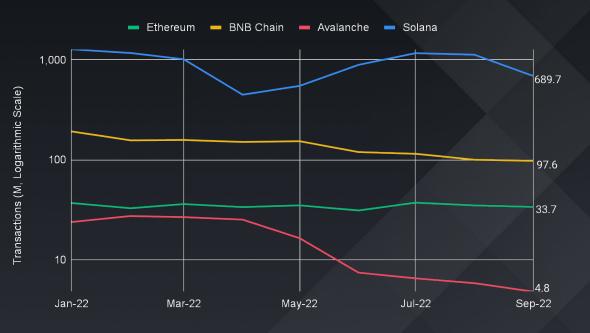
- BTC dominance has fallen since its YTD peak in June (post-Terra collapse) as other L1s gain market share.
- Notable gainer for Q3 is ETH, which gained ~3% market share. This is likely contributed by interest in ETH due to the Merge.

Layer 1s



Monthly Transactions by Chain Solana had the strongest quarter based on QoQ growth

Number of Transactions (Monthly)





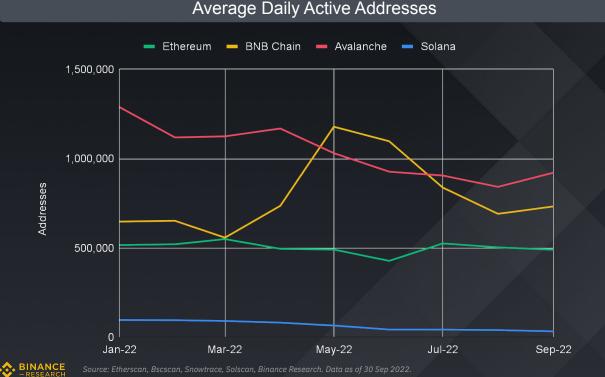
QoQ Change: SOL (+58%); ETH (+6%); BNB (-26%); AVAX (-65%)

- Across the sample set, Solana experienced the highest % increase in transactions in Q3, as activity normalized after a significant fall in Q2.
- Avalanche's transaction activity continues to track lower and fell 65% QoQ in Q3.



Source: Etherscan, Bscscan, Snowtrace, Solscan, Binance Research. Data as of 30 Sep 2022.

Average Daily Active Addresses by Chain Daily active addresses generally trended lower in Q3





Ethereum bucked the trend

- Ethereum ended Q3 with ~5% increase in average daily active addresses vs. Q2. This is likely contributed by the Merge.
- Average daily active addresses for BNB Chain, Solana and Avalanche ended Q3 with -33%, -1%, -23% QoQ respectively.

Twitter Followers Followers increased across the board

Cumulative Twitter Followers by Official Blockchain Accounts



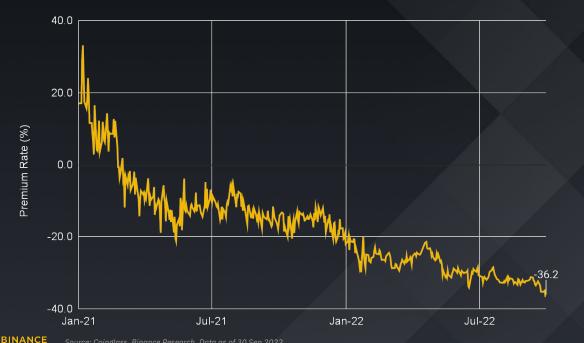


@ethereum leads

- @ethereum has the highest # of Twitter followers (~2.8M) but @solana witnessed the strongest Q3 growth (+16% QoQ).
- Size of Twitter followers is used as an imperfect proxy to gauge community growth. Data only includes official blockchain accounts and not dApps.

BTC: Grayscale Bitcoin Trust ("GBTC") Premium GBTC discount continues to widen

Grayscale BTC Premium Rate (%)





-36.2% discount to NAV

- Shares of GBTC currently trade at an all-time high discount of 36.2% vs. Net Asset Value ("NAV").
- In a bid to reduce the discount, Grayscale filed to convert the Trust to an Exchange Traded Fund ("ETF") but it was rejected in June this year.

BTC: Bitcoin Balance on Exchanges vs. Price Balance and Price have been range-bound in Q3

BTC Balances on Exchanges vs BTC Price





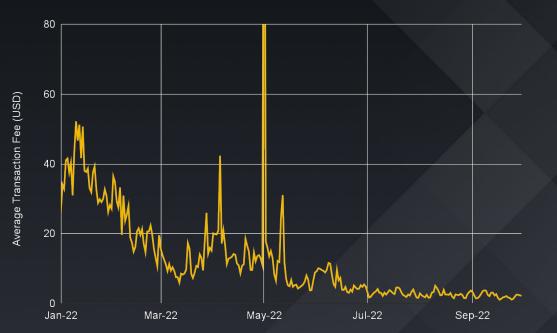
An uneventful Q3 for BTC

- Bitcoin balances on exchange ended Q3 at roughly similar levels to Q2. Bitcoin price has also hovered around the range of US\$18-22K for most part of Q3.
- Given the lack of any price catalyst in recent months, Bitcoin has been unable to break out of its trading range.

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ETH: Ethereum Transaction Fees Average fees declined as blockchain activity fell

Ethereum Transactions Fees

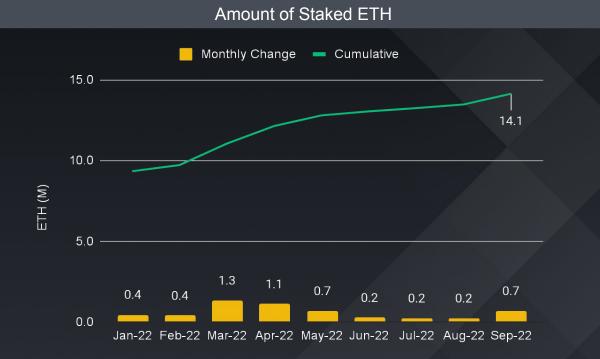




-79.1% QoQ

- Average transaction fees in Q3 was US\$2.61 vs. \$12.50 in Q2, representing a sharp fall of 79.1%.
- This is indicative of a decline in blockspace demand as a result of reduced activity on Ethereum. Average gas price in Q3 was ~21 gwei vs. ~59 gwei in Q2.

ETH: Staked ETH Statistics ~11.7% of all ETH in circulation has been staked





14.1M ETH staked

- The amount of staked ETH picked up pace in Sep 2022 compared to prior months (+0.7M), likely contributed by the success of the Merge which brings stakers one step closer to withdrawals.
- ETH staking yield is currently around 4+%.

BNB Chain: Average Transaction Fee Users paid an average of \$0.25 transaction fees in Q3

\$0.60 Average Transaction Fee (USD) \$0.40 \$0.20 \$0.00 Jan-22 Mar-22 May-22 Jul-22 Sep-22

BNB Chain Transaction Fee



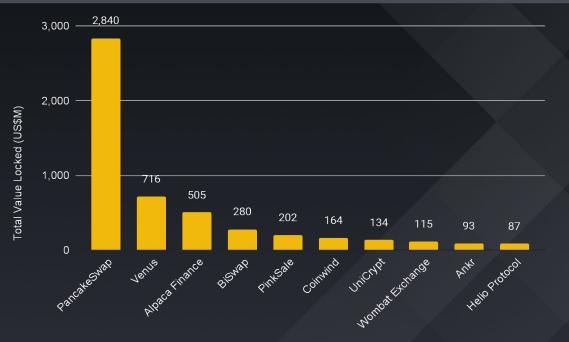
-16% average fees in Q3

- In Q3, the average transaction fee was \$0.25, as compared to \$0.30 in Q2.
- The decline corresponds to reduced network activity in Q3.



BNB Chain: Top dApps by TVL DEXes and lending are the largest verticals

Top 10 dApps on BNB Chain (by TVL)





Top 4 dApps hold their spot in Q3

- No changes in the top 4 dApps compared to Q2. PancakeSwap remains the largest dApp on BNB Chain by a large margin.
- New entrants to the Top 10 dApps (Q3 vs. Q2) are PinkSale, Wombat Exchange, Ankr, and Helio Protocol.

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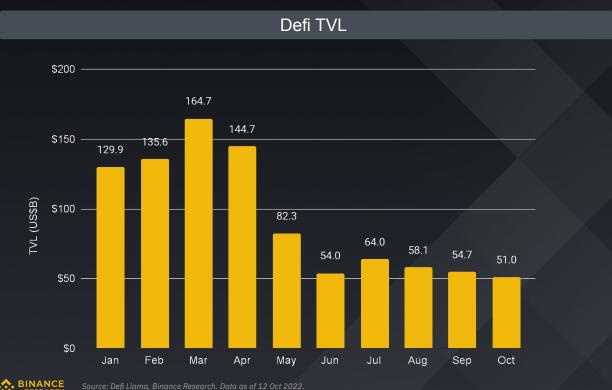
DeFi

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DeFi Total Value Locked DeFi TVL remained range-bound between US\$50-60B





Following a significant drop in May, DeFi TVL has yet to recover

- Q3 saw a ~1% uptick in DeFi TVL, ending the quarter just shy of US\$55B.
- Regulatory uncertainty and frequency of exploits continue to weigh on overall sentiments.

L1 Market Share by TVL BNB Chain & Tron gained, while Avalanche dropped

100% Others Polygon Avalanche Solana 75% Tron BNB Ethereum TVL Market Share 50% 25% 0% Jan-22 Mar-22 Mav-22 Jul-22 Sep-22

Defi TVL Market Share by Chain

Ethereum ended Q3 with ~58% market share, while BNB Chain and Tron remain neck-to-neck with around ~10%

• It should be noted that there are significant differences in number of protocols, with Ethereum and BNB Chain having 450+, while Tron has only 10.

Top DeFi dApps by TVL MakerDAO remains top; Lido holds its spot post-Merge

Top 10 DeFi dApps 7.6 8.0 — 5.9 5.9 6.0 5.4 5.2 Total Value Locked (US\$B) 3.9 4.0 3.3 2.9 2.3 1.7 2.0 0.0 convertinance compound Finance Justend ParcateSwaP WaterDAO AAVE CUNE Lido Uniswap Instadapp

Limited changes in the top 10 DeFi dApps across the quarter

- While most dApps lost TVL during the quarter, Lido and Curve were among the top gainers.
- While Ethereum-based MakerDAO continues to remain at the top, the rest of the top 5 DeFi dApps operate across multiple chains.

DEX/CEX Trading Volume Ratio tracked lower in Q3

30.0% 25.5% Trading Volume) 22.9% 22.4% 22.1% 18.6% 18.5% 20.0% 17.1% 15.7% DEX/CEX Ratio (Based on 10.8% 10.0% 0.0% Jan-22 Mar-22 May-22 Jul-22

DEX to CEX Ratio (%)



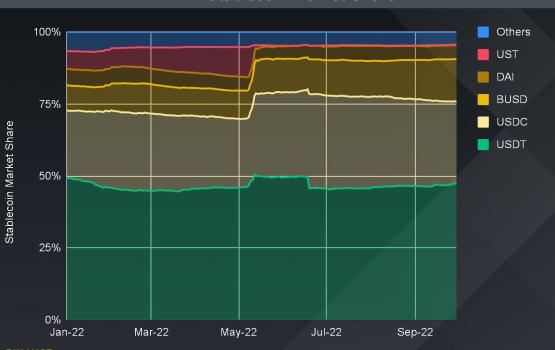
DEX/CEX trading volume ratio down ~37% in Q3

- This has largely coincided with general DeFi market conditions, where volumes are down.
- Regulatory uncertainty continues to be hurdle, and has meant that more regulatory-compliant CEXes have been able to build market share.



Stablecoin Market Share BUSD and USDT continue to gain vs USDC

Stablecoin Market Share

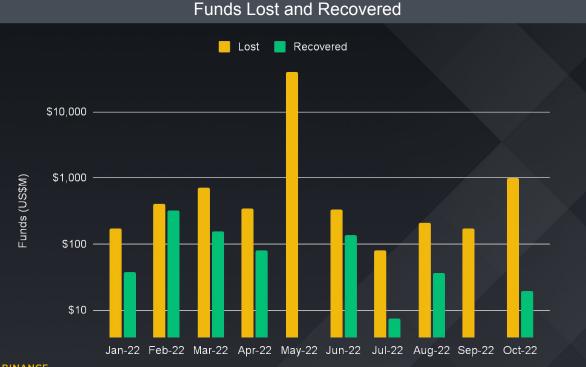




Limited changes in market share, BUSD and USDT outpaced USDC

 Tether has recently announced that it has completely eliminated commercial paper from its reserves, in favour of US Treasury Bills.

Total Funds Lost/Recovered DeFi exploits are unfortunately a frequent occurrence





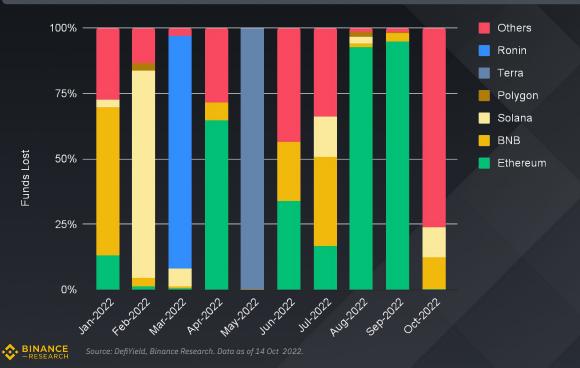
DeFi hacks & scams have led to ~US\$155M in lost funds per month in Q3

- Funds Recovered have averaged under 10% in Q3.
- In 2022 so far, an average of ~US\$380m has been lost per month (excluding May).

Source: DefiYield, Binance Research. Data as of 12 Oct 2022 Note: May 2022 figures take into account Terra collapse

Funds Lost by Blockchain Exploits and usage of chain appear correlated

Breakdown of Funds Lost by Blockchain





Chains with large TVL have been targeted by bad actors

- The start of the year saw notable hacks in Solana (Wormhole), Ronin and Terra.
- Bridges have been particularly susceptible, with over US\$1.4B in Lost Funds in 2022 so far.

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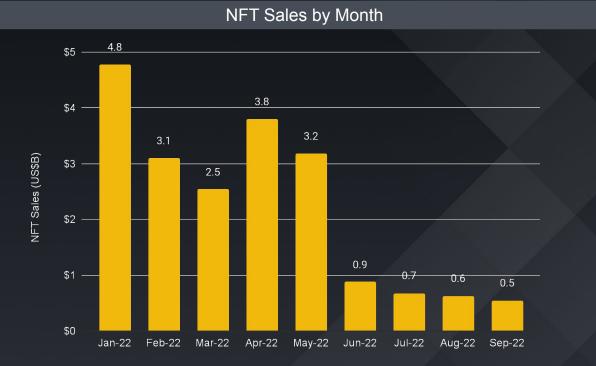
NFTs

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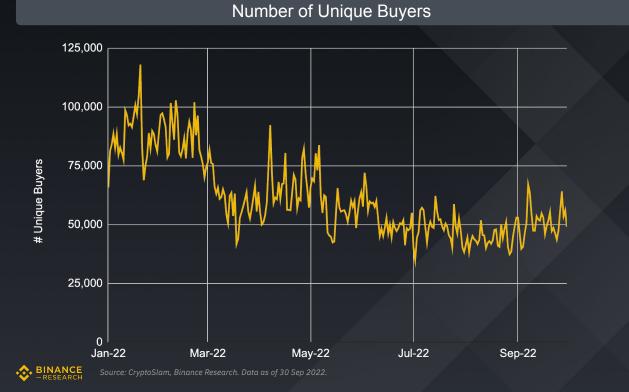
Total NFT Sales With crypto prices down, NFT sales had a tough Q3...



Q3 NFT Sales -73% QoQ

- Both primary and secondary sales were down over the quarter.
- Q3 NFT volume drastically underperformed in comparison to Q1 and Q2, following the market rout in June.

Number of Unique Buyers ...but, buyers seem resilient despite a turbulent market



Despite a difficult environment, Q3 buyers data shows resilience

- Unique buyers metric has halved since its high early this year.
- Since the end of Q2, we have seen a slight increase in the number of unique buyers.

NFT Sales Volume by Blockchain Ethereum leads, but Solana gained ground in Q3

NFT Sales by Chain 100% Others BNB Flow ImmutableX 75% Market Share by Sales Volume Solana Ethereum 50% 25% 0% Jul-22 Mar-22 May-22 Sep-22 Jan-22

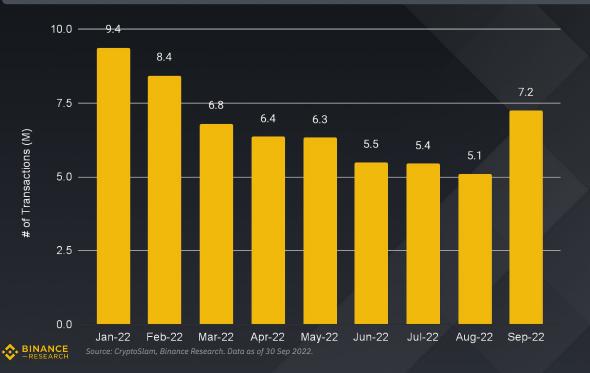


Solana +13% market share in Q3

- Ethereum remains the strongest blockchain in terms of NFT sales, with a 65% market share at the end of Q3. However, this represents a 16% decrease from end of Q2.
- NFT sales for Solana continues to pick up pace.

Total NFT Transactions Pick up in transactions brings new confidence

NFT Number of Transactions by Month





Throughout Q3 the number of transactions has been higher than 2021

 Despite an early slowdown in July and August September transaction volume picked up again in September

NFT-500 Price Index A rough quarter not just for Crypto prices but also for NFTs

NFT-500 Price Index 2000.0 1500.0 Index 1000.0 797.2 500.0 0.0 Jul-22 Jan-22 May-22 Mar-22 Sep-22



-27.9% QoQ drop in the NFT-500 index in Q3

- NFT prices are near all-time lows, in both ETH and USD terms, as measured by the NFT-500 Index.
- Price declines are consistent with the overall reduced activity in the space.



Source: Nansen, Binance Research. Data as of 30 Sep 202.

Note: The Nansen NFT-500 is a broad market index tracking the market activity of NFTs issued on the Ethereum blockchain. Index points can be represented as what US\$1000 invested on January 1 would now be worth. This broadly reflect combined market cap (in ETH).

Price Performance by Sectors All sectors are down, but some did worse than others

0.0% -5.6% -10.0% 6.6% -20.0% ລ_oQ % Change -19 7% -25.3% -30.0% -40.0% -42.8% -50.0% Blue Chip-10 Social-100 Game-50 Art-20 Meta-20

NFT Index QoQ Performance (Q3 2022)



Has the Metaverse hype train left the station?

 NFTs had a bad quarter throughout the board. However, Social projects and Metaverse related NFTs have performed worse than the rest.

Source: Nansen, Binance Research. Data as of 30 Sep 2022

Note: Blue Chip-10 consists of ten notable and classic NFTs organised by its market capitalization. Social-100 tracks the top 100 Social NFT collections by market capitalization. Gaming-50 index tracks 50 Gaming NFT collections ranked by market capitalization. Art-20 tracks the top 20 art collections by market capitalization. Metaverse-20 index tracks the top 20 Metaverse NFT collections by market capitalization.

NFT Market Share by Category Social NFTs dominate the NFT market



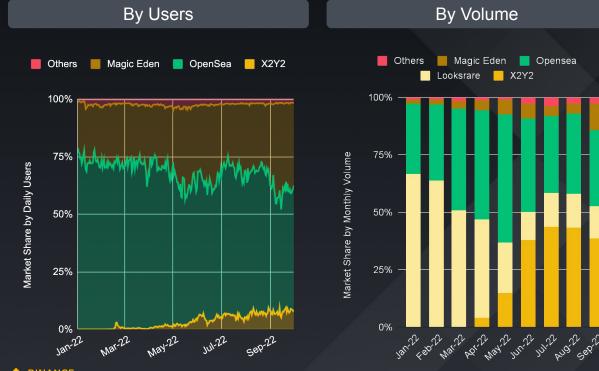
Source: Nansen, Binance Research. Data as of 30 Sep 2022. Note: Social NFTs include profile pictures, access and membership, utility, and others.



Will Social NFTs rule forever?

- Social NFTs enable users to network, interact and socialise. They include profile pictures (e.g. Cryptopunks), membership (e.g. proof-of-attendance), and utility (eg. Ethereum name service).
- Are Gaming NFTs a story of the past? The continued decline makes us wonder how the future will look like.

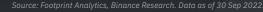
NFT Marketplaces Market Share A slow but steady change in market leadership





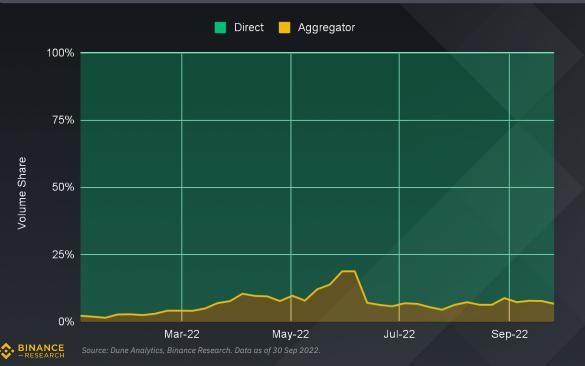
OpenSea is still the leading exchange, but for how long?

- Throughout the year, competitors have been gaining market share and the market has turned from a monopoly into an oligopoly.
- Magic Eden is a close second as Solana NFTs pick up steam.



NFT Aggregators vs Direct A story of the past?

NFT Aggregators vs Direct Volume Share



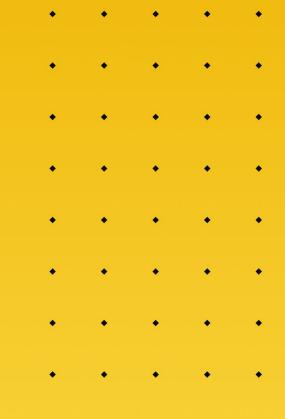


Aggregators were a hot topic in H1 but have not gained much traction since then

 Direct NFT marketplaces have been focused on rolling out new features and innovation, giving aggregators a run for their money, with little to no growth in the market share of aggregators.

GameFi

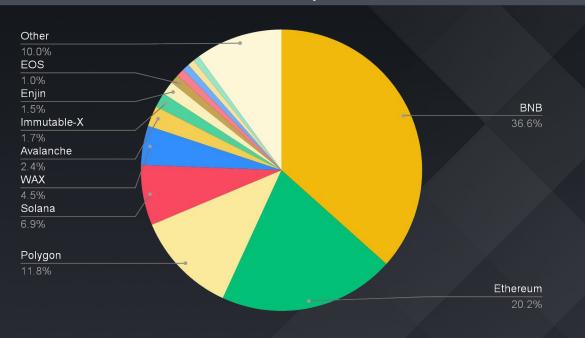




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Games by Chain BNB Chain leads with the greatest number of games

Web3 Games by Chain





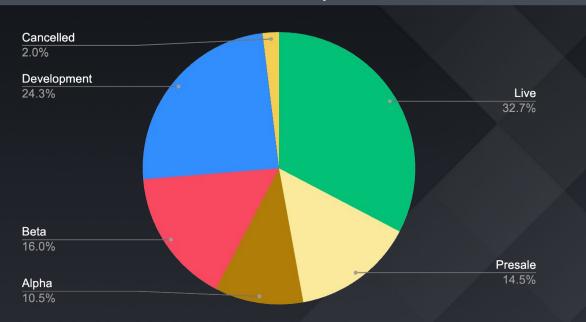
The gaming landscape is led by the top three players

- BNB Chain, Ethereum, and Polygon account for almost 70% of all games.
- BNB Chain has the highest number of games built on the chain.



Games by Status GameFi is still in its early days

Web3 Games by Status

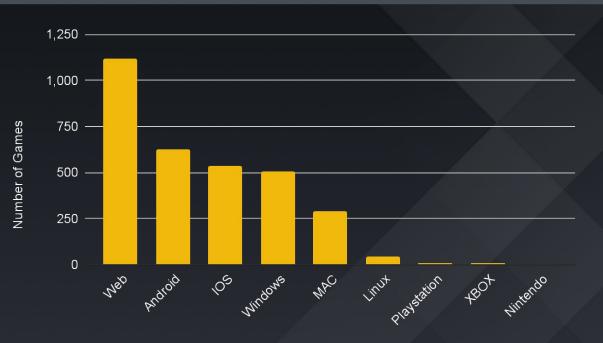


With only ~30% of games live, most games are still under development

 Only a small percentage of projects have been cancelled and there are many projects in Development, Beta, or Alpha stages.

Games by Device Online or Mobile - you choose

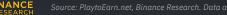
Web3 Games by Device





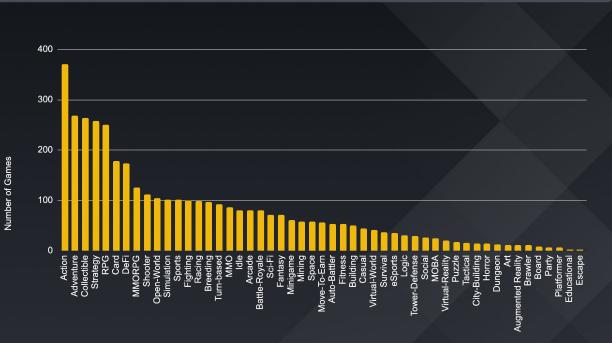
As of now, web-based and mobile games are head-to-head

- Mobile games (Android + iOS) are leading by a small margin. Considering a large mobile gaming market in Asia and high crypto adoption for the region, we are not surprised.
- Console games are clearly lagging behind.



Games by Genre Entertainment across the board

Web3 Games by Genre



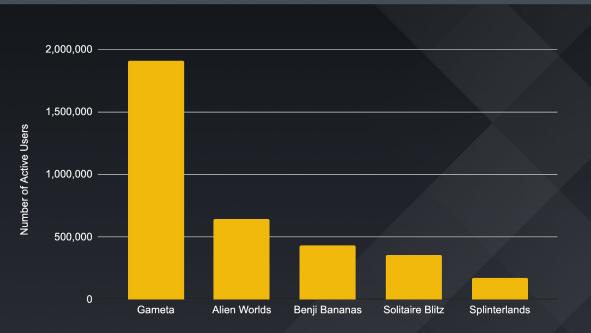


Action-oriented games are leading

- Action, Adventure, and Collectible are the categories with the greatest number of games, possibly indicating that developers see these verticals with the most potential.
- Educational and Escape games lag behind.

Top 5 Games by Active Users in Past 30 Days Play-to-earn games are leading the pack

Games by Active Users (September 2022)





Gameta led in terms of users in September

- Action and community are at the center of GameFi trends.
- Play-to-Earn, despite its controversial reputation, is still highly popular.



Top 5 Games by Market Cap in Past 30 Days The Metaverse - hype or opportunity?

Games by Market Cap (September 2022) \$2,000,000,000 \$1,500,000,000 Market Capitalization (USD) \$1,000,000,000 \$500,000,000 \$0 The Otherside The Sandbox Decentraland STEPN Axie Infinity



Metaverse projects stand out

- The top 3 games are Metaverse-related and are big names that should be familiar to most.
- X-to-Earn games like Axie Infinity and STEPN follow closely behind.



About Binance Research

BINANCE

Binance Research is the research arm of Binance, the world's leading cryptocurrency exchange. The team is committed to delivering objective, independent, and comprehensive analysis and aims to be the thought leader in the crypto space. Our analysts publish insightful thought pieces regularly on topics related but not limited to, the crypto ecosystem, blockchain technologies, and the latest market themes.



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