



# The State of Staking

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Q1 | 2022

# \$664 BN

 (+48% Y/Y)

Market Cap of Top 35 PoS Assets

# 30%

 (+6% Y/Y)

PoS Share of Total Crypto Market Cap

# 28

 (+3 Q/Q)

PoS Chains in CoinGecko Top 100

# 15%

 (+11% Q/Q)

Average Yield

# \$15 BN

 (56.9% Y/Y)

Annualized Staking Rewards

# Key Staking Metrics Buck The Trend To Reach All-Time Highs

Several key staking metrics reached record highs in Q1 despite lackluster crypto market performance. The average staking yield increased by 11% Q/Q to 15.4%, and the average stake rate increased by 14% Q/Q to 49.3%. As a result, annualized staking rewards hit an all-time high at just under \$15 billion, up 57% vs Q1 2021.

	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022
Avg. Yield	13.4%	12.4%	11.8%	13.9%	15.4%
Avg. Stake Rate	46.0%	47.7%	46.1%	43.2%	49.3%
Annualized Staking Rewards (\$BN)	\$ 9.5	\$ 6.0	\$ 12.2	\$ 14.7	\$ 15.0

**Source:** Annualized staking rewards are calculated by multiplying the market cap, stake rate and staking yield for each protocol on the last day of the quarter (e.g. 09/30/21 or 12/31/21). Market capitalizations per [CoinGecko](#). Stake rate and yield data per on-chain block explorers.

Asset prices continued their decline that started in late 2021. The total crypto market capitalization decreased by 4.5% Q/Q to \$2.4TN, while the top 35 PoS assets decreased by 8.8% Q/Q to \$664BN.

Terra was the lone bright star in the quarter, driven by news of the Jump Capital and 3 Arrows \$1BN investment.

LUNA performed the best of crypto Top 10 assets, with its market cap increasing by 24% Q/Q to \$38BN. Driven by lower asset prices, the value of staked assets decreased modestly to \$170BN, down 5.9% Q/Q from the all-time high of \$181BN in Q4 2021.

\$BNS	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022
Staked Assets	\$ 96.4	\$ 78.3	\$ 157.3	\$ 181.1	\$ 170.3

**Source:** *The staked asset value is calculated by multiplying the market capitalization and stake rate for each protocol on the last day of the quarter (e.g. 09/30/21 or 12/31/21). Market capitalizations per [CoinGecko](#). Stake rate data per on-chain block explorers.*

PoS market share remained largely unchanged versus Q4 2021. As of 03/31/22, PoS had 30% market share of the total crypto market cap, and 49% share excluding Bitcoin. PoS continues to secure 5 of the top 10 assets, and now secures 28 of the top 100 assets, an increase of 3 assets from the end of 2021. PoS dominance of the top 10 assets was 32.4%, a decrease of 2% Q/Q. There are now 7 PoS decacorns, down from 8 in Q4 2021.

Ethereum's (\$407BN) share of the PoS market remained unchanged at 61%. Solana (\$39BN) retained its #2 PoS ranking despite a 26.4% Q/Q decrease in market cap. Radix (\$1.6BN) and Juno (\$1.3BN) were new additions to the Top 35 PoS and Top 100 crypto assets.

\$BNS	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022
PoS Share	23%	24%	30%	31%	30%

**Source:** *Market capitalizations per [CoinGecko](#).*

# ETH Staking Yield Expected To Increase 90%+ Post Merge

Ethereum's transition to proof-of-stake, known as the "Merge", is planned for Q3 of 2022 and will bring significantly increased rewards to stakers. Post merge, stakers will earn block rewards, transaction fees, and MEV revenue.

We estimate the ETH staking yield will be in the 8.5% - 11.5% range at the time of the merge. Our estimates are comprised of the following three sources of revenue for stakers:

REWARD SOURCES	APR
+ Block Rewards	4.5%
+ Transaction Fees	3% - 5%
+ MEV	1% - 2%
= Total Rewards	8.5% - 11.5%

## Model Notes:

As of 03/31/22 there were 328,458 active validators (10,510,653 staked ETH) per [https://beaconcha.in/charts/staked\\_ether](https://beaconcha.in/charts/staked_ether). While there is a rate limit on the amount of new validators activated per day, the limit decreases as the validator set increases. As such, we used the historical monthly growth rate of 5% to estimate there will be 440,165 active validators (14,085,280 staked ETH) at the merge.

The block reward APR is calculated as follows:  $APR = 2,940 / (\text{SQRT}(\# \text{ active validators}))$ . As of 03/31/22, the block reward yield was 5.1%.

Per Etherscan (<https://etherscan.io/chart/transactionfee>), Ethereum miners earned 107,510 ETH from transaction fees in Q1 2022, and 2,128,809 ETH from fees in 2021. We annualized the Q1 22 transaction fees to estimate the low end, and applied a 60% discount to 2021 total fees for the high end of our transaction fee APR at the time of the merge.

Per Flashbots (<https://dashboard.flashbots.net>), Ethereum miners earned 30,655 ETH from MEV in Q1 2022, and 47,386 ETH in Q4 2021. We annualized Q1 22 earnings to estimate the low end and Q4 21 earnings for the high end of our MEV APR at the time of the merge.

As of 03/31/22, 8.9% of the total ETH supply was being staked. All staked ETH, including rewards, will remain locked and out of circulation until the activation of transfers post merge. We are estimating a stake rate of ~ 12% at the time of the merge, and a peak stake rate of ~ 13.5% in 2022.

Additionally, the ETH inflation rate will decrease by ~80% from the current ~ 3% to ~ 0.5% post merge as PoW rewards go away. This would be roughly equal to two Bitcoin “halvenings” at once.

Together, these dynamics set the stage for a significant ETH supply shock later this year. And if the higher staking yield drives incremental demand for ETH, the second half of 2022 could be epic.



# LUNA Sky Rockets 100% On \$1BN Bitcoin Infusion

**LUNA** was the best performing large cap PoS asset in the quarter. In response to widespread concerns that a black swan event may result in UST losing its peg, the LUNA Foundation raised \$1BN to purchase Bitcoin. The BTC will be used to absorb UST volatility. The market reacted strongly in favor of this move, with the LUNA price more than doubling to \$106 on 03/31/22.

**Terra** is a “layer-one” smart contract chain built on Tendermint. UST is an algorithmic stablecoin built on Terra. Algorithmic stablecoins don't use external collateral or debt to maintain their peg. Instead, UST maintains a \$1 peg via open market operations. LUNA, Terra's native token, secures the network via staking and absorbs UST volatility. Bitcoin will now be added to absorb UST volatility too.

**Anchor** is a lending protocol built on Terra. To stimulate demand for UST, Anchor subsidizes a significantly above market "teaser" rate of 19.5% on UST deposits. As a result, ~75 % of the outstanding UST supply is deposited in Anchor.

\$BNS	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022
UST Market Cap	\$ 1.6	\$ 1.9	\$ 2.7	\$ 10.1	\$ 16.4
UST Deposited in Anchor	\$ 0.2	\$ 0.4	\$ 1.5	\$ 5.1	\$ 12.0
% of UST Supply	15%	21%	55%	50%	73%

**Source:** Market capitalizations per [CoinGecko](https://www.coinmarketcap.com/). UST deposited in Anchor via <https://app.anchorprotocol.com>.

**The primary criticism of UST** is a concern that LUNA could enter a “death spiral” due to rampant inflation. A fall in the UST peg could require increased minting (inflation) of LUNA to maintain the peg, driving the price of LUNA lower, while failing to keep the peg. The addition of Bitcoin as a collateral asset uncorrelated to LUNA reduces this risk significantly.

# Appendix

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## Top 35 PoS Chains by Market Cap

PROJECT	TICKER	MARKET CAP	YIELD	STAKE RATE
Ethereum	ETH	\$407,460,530,688	5.3%	8.9%
Solana	SOL	\$39,218,225,945	6.7%	75.8%
Cardano	ADA	\$38,244,803,203	4.6%	53.6%
Terra	LUNA	\$37,715,295,153	7.3%	41.4%
Avalanche	AVAX	\$25,725,736,661	9.5%	54.9%
Polkadot	DOT	\$24,764,137,741	14.8%	52.5%
Polygon	MATIC	\$11,596,193,021	9.2%	35.0%
NEAR	NEAR	\$9,329,609,388	11.1%	39.3%
Cosmos	ATOM	\$8,835,687,471	16.8%	60.4%
TRON	TRX	\$7,454,721,479	5.8%	29.5%
Algorand	ALGO	\$6,182,276,354	10.1%	28.1%
Elrond	EGLD	\$4,377,326,477	16.1%	57.0%
Thorchain	RUNE	\$3,610,861,152	10.9%	63.8%
Fantom	FTM	\$3,592,267,282	13.9%	52.0%
Tezos	XTZ	\$3,388,838,949	5.8%	75.7%
The Graph	GRT	\$3,226,330,854	9.5%	40.3%
EOS	EOS	\$2,921,135,488	0.2%	34.1%
Osmosis	OSMO	\$2,783,255,906	63.7%	32.2%
FLOW	FLOW	\$2,548,796,570	9.0%	51.6%
Helium	HNT	\$2,482,092,084	5.3%	36.5%
Harmony	ONE	\$1,956,534,035	9.5%	45.4%
Kusama	KSM	\$1,697,911,029	18.3%	42.9%
Stacks	STX	\$1,594,664,354	9.0%	45.4%
Radix	XRD	\$1,556,380,060	11.5%	80.0%
Celo	CELO	\$1,473,213,245	5.0%	48.9%



# Appendix

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## Top 35 PoS Chains by Market Cap

PROJECT	TICKER	MARKET CAP	YIELD	STAKE RATE
Dash	DASH	\$1,417,941,089	5.9%	40.3%
Juno	JUNO	\$1,271,327,536	105.8%	37.8%
Mina	MINA	\$1,166,298,730	24.7%	88.4%
Oasis	ROSE	\$997,639,923	11.8%	89.0%
QTUM	QTUM	\$926,390,473	8.2%	5.7%
Decred	DCR	\$903,417,720	3.5%	62.3%
Secret	SCRT	\$902,434,024	24.6%	61.0%
Livepeer	LPT	\$765,564,714	20.0%	49.8%
ICON	ICON	\$763,724,650	12.7%	47.2%
Kava	KAVA	\$760,855,962	33.5%	59.8%
<b>Total</b>		<b>\$663,612,419,410</b>		
<b>Average</b>		<b>\$18,960,354,840</b>	<b>15.4%</b>	<b>49.3%</b>
<b>Median</b>		<b>\$2,783,255,906</b>	<b>9.5%</b>	<b>48.9%</b>

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# About Staked

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Staked is a leading non-custodial staking service provider. Staked offers staking services for 30+ proof-of-stake blockchains with \$10BN+ of delegated assets. Leading investors, exchanges and wallets trust Staked to reliably and securely deliver optimal staking rewards. Kraken acquired Staked in December 2021.

For more information about Staked, please visit: <http://staked.us>

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