

coinbase

Please note that One River Digital, a subsidiary of One River Asset Management, was acquired by Coinbase as of March 3, 2023. Read more [here](#).

One River Digital Pulse



30 March 2023

One River Digital
Research

Weekly Pulse: Security – A Balancing Act

Security – A Balancing Act: As the first quarter draws to a close, bitcoin miners are breathing a sigh of relief after the surge in revenue. The mining network pulse reports a new high in the computing power used by the network (hashrate), a continuation of last year's counter-cyclical trend. So, where's the hashrate headed? We turn to humanity's new best friend for a guess. ChatGPT says we can expect the bitcoin hashrate to surge to 1 Zetta-hash per second in the next 3 years. This is quite a bold call – 3 x higher than current levels. Good for network security, right? Yes. But hashrate alone doesn't define bitcoin's security. A more crucial metric is the so-called security budget – the revenue distributed to miners to incentivize network security. Bitcoin's network security budget was \$9.5 billion last year, 98.5% from block subsidies and 1.5% from transaction fees. But block subsidies are cut in half every 4 years or so. Either transaction fees or the value of bitcoin, the block reward, must rise significantly to maintain a diverse pool of miners. All roads lead back to use cases. It's use cases that will drive transaction fees higher. Mining revenue tied to ordinal NFTs provided a nice sneak peek. A complete transition of the security budget could be decades away – use cases need to pick up the pace.

coinbase ASSET MANAGEMENT

One River Digital Asset Management has been acquired by Coinbase and is now Coinbase Asset Management. Additional details on the transaction may be found on the [Coinbase blog](#). References to One River Asset Management and One River Digital Asset Management may be contained herein during the transition period but are subject to change.

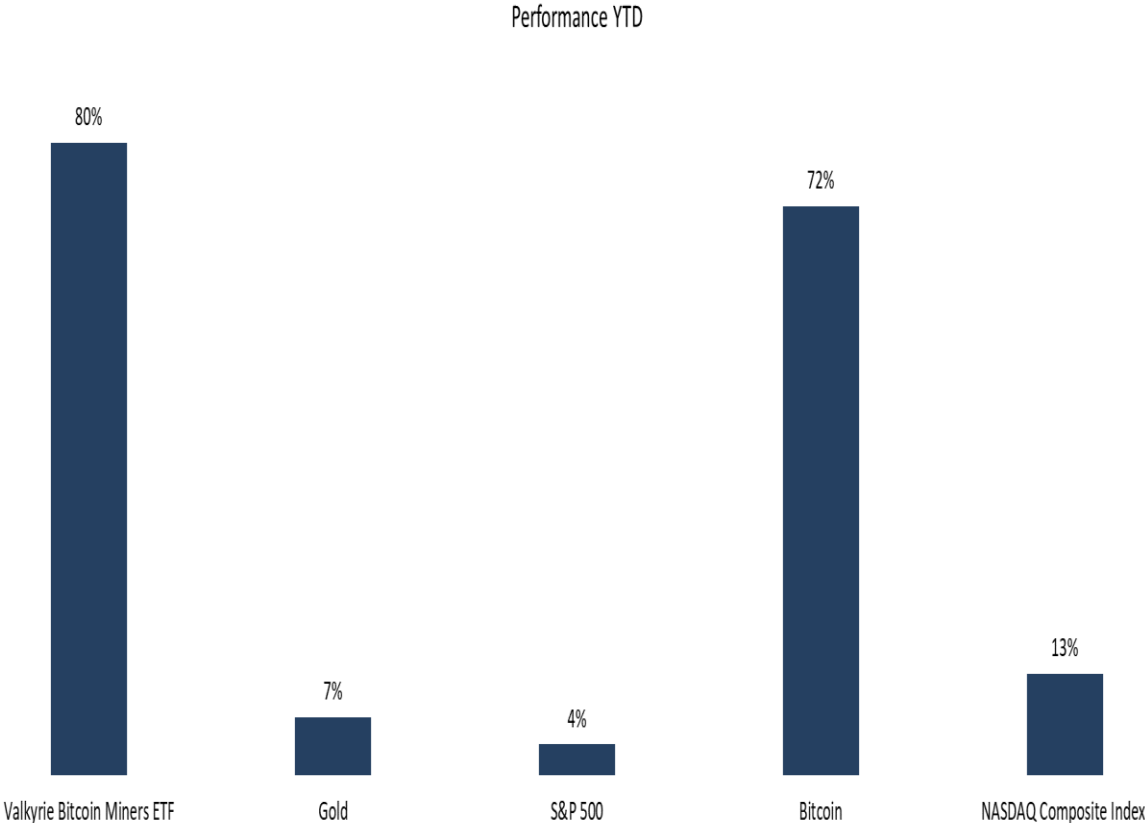
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WEEKLY BEATS

- 1. Chart of the Week – Bitcoin Price – Strongest Quarter in Two Years
- 2. Fundamental Pulse – High
- 3. Mining Pulse Improves
- 4. Bitcoin’s Security Budget
- 5. Ordinals- An Insight into the Future

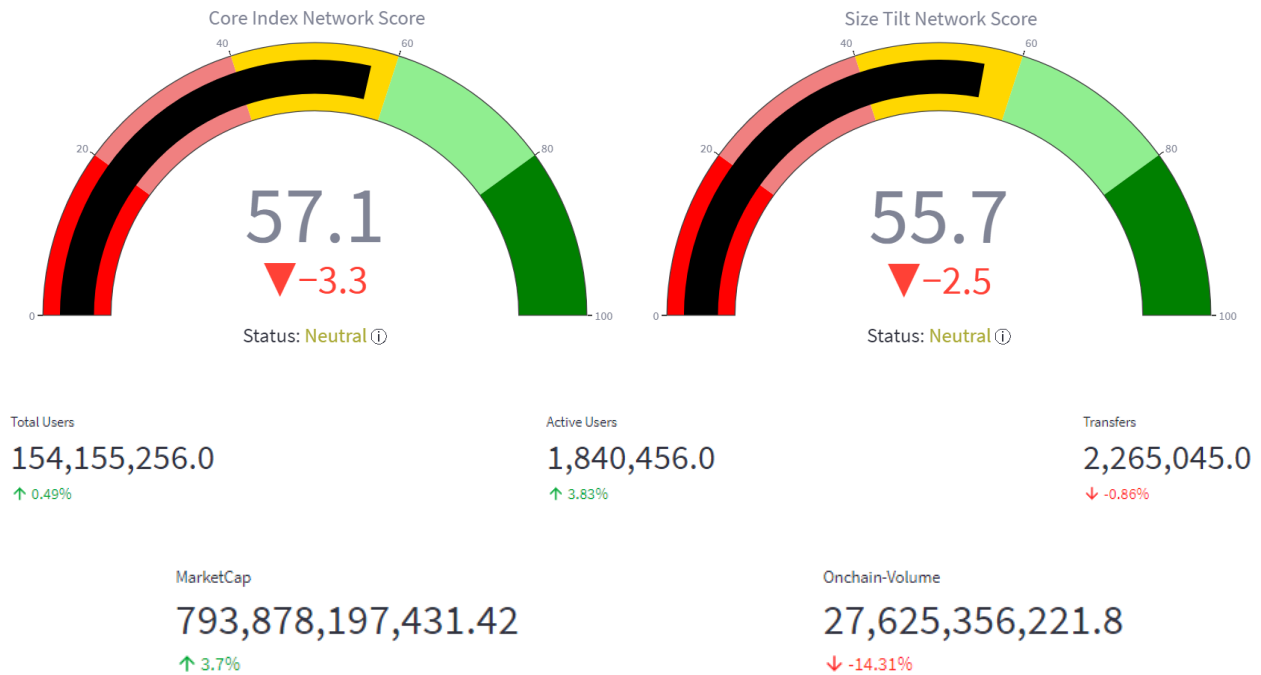
1. BITCOIN PRICE – STRONGEST QUARTER IN TWO YEARS

Despite digital assets facing regulatory pressures and frictions in their connections to traditional banking, bitcoin has posted an impressive 72% YTD. The price appreciation is a relief to miners given the cash flow challenges into the year.



Source: Bloomberg (Date- 3/29/2023)

2. FUNDAMENTAL PULSE – NETWORK PERFORMANCE



A slower week for network fundamentals, but we end the month on a high. March saw a gain on the Core index of about 8 points with YTD gains of 19 points. Ethereum led the way over the month, with surges in DeFi, stablecoin activity before being dominated by pure Ethereum transfers.

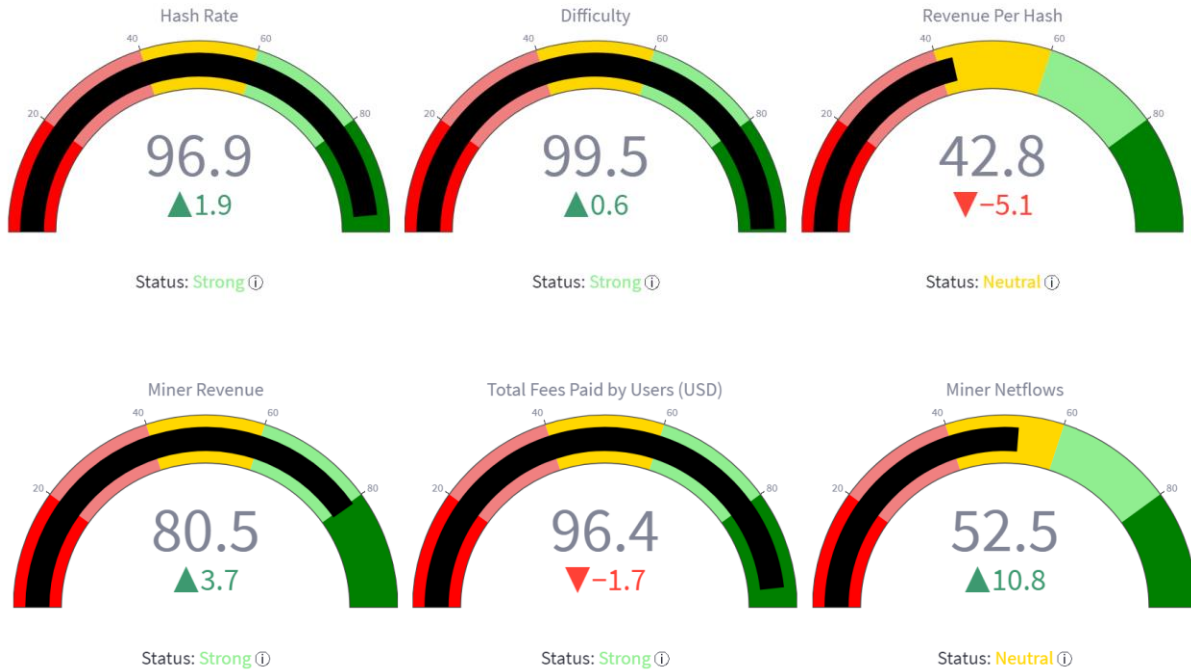
Assets	Asset Score	7d Change	30d Change	Volume	Transfers	Active Users	User Growth	Valuation	Velocity	Network Distribution
Core	57	-3	8	27	66	50	63	37	62	95
Size Tilt	56	-3	6	33	62	46	58	43	58	92
Bitcoin	56	-7	6	18	61	53	62	28	68	100
Ethereum	62	6	14	42	85	46	71	52	50	87
Cardano	54	-9	2	77	9	5	31	75	82	100
Polygon	57	6	3	50	77	72	38	53	16	94
Litecoin	33	-10	-12	14	21	22	36	38	50	52

*Snapshot from the One River Digital Pulse on 3/29/2023. Seven-day change in the Core and Size-Tilt Index Scores.

Notes: Status- High > 60, Neutral 40 to 60, Low < 40. A score of 54.5 means the Index value is better than 54.5% of its values in the past 365 days. Index scores exclude Solana, Cosmos, and Polkadot due to incomplete data coverage.

3. MINING CORE METRICS IMPROVE

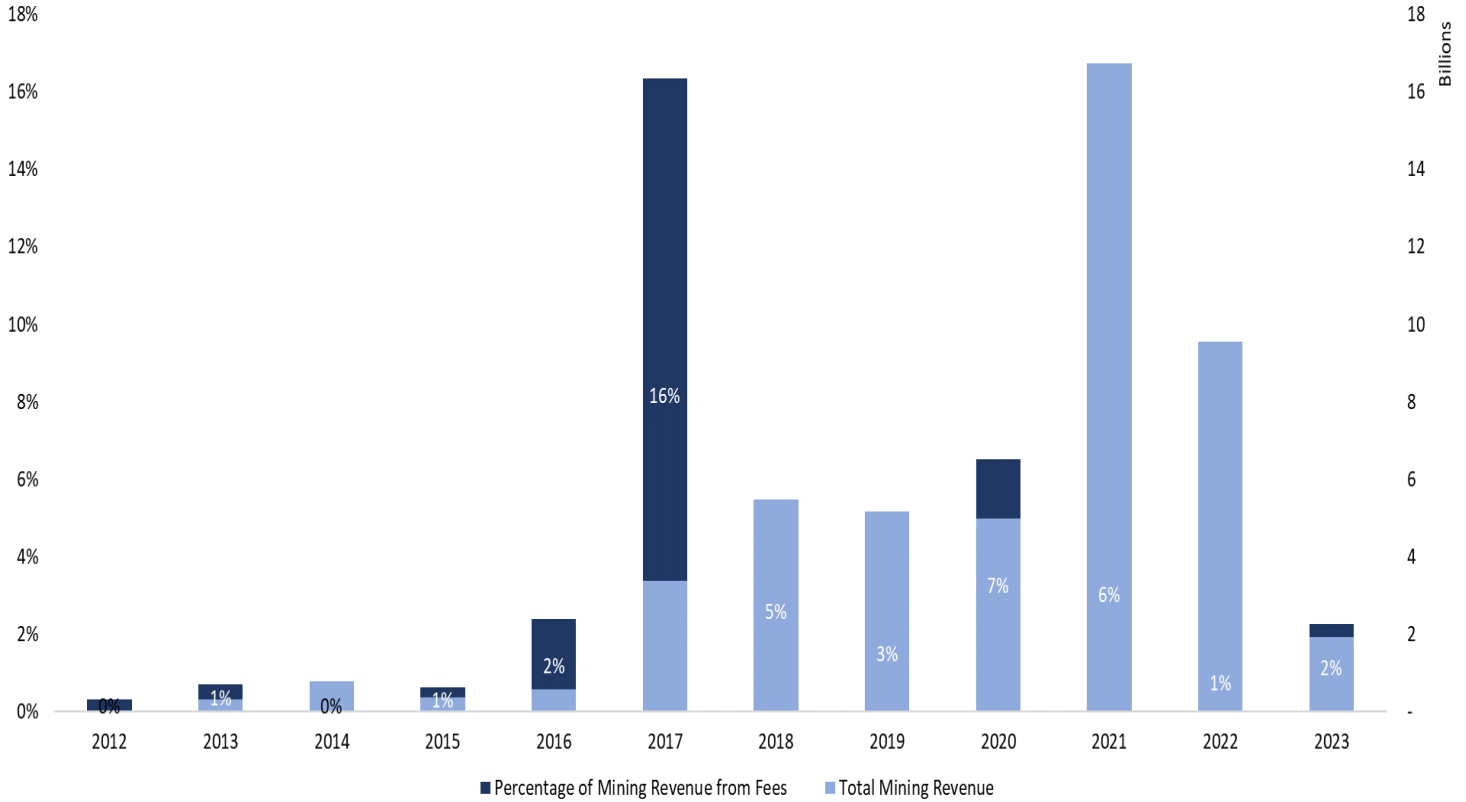
As bitcoin's price increased this year, miners plugged in profitable older models to boost production. This has led to an increase in the computational requirements in mining a block. But while hashrate continues to increase, revenue per hash still lags. Miners would still need more price appreciation to be in a more stable condition.



Source: One River Digital Pulse.

4. BITCOIN'S SECURITY BUDGET

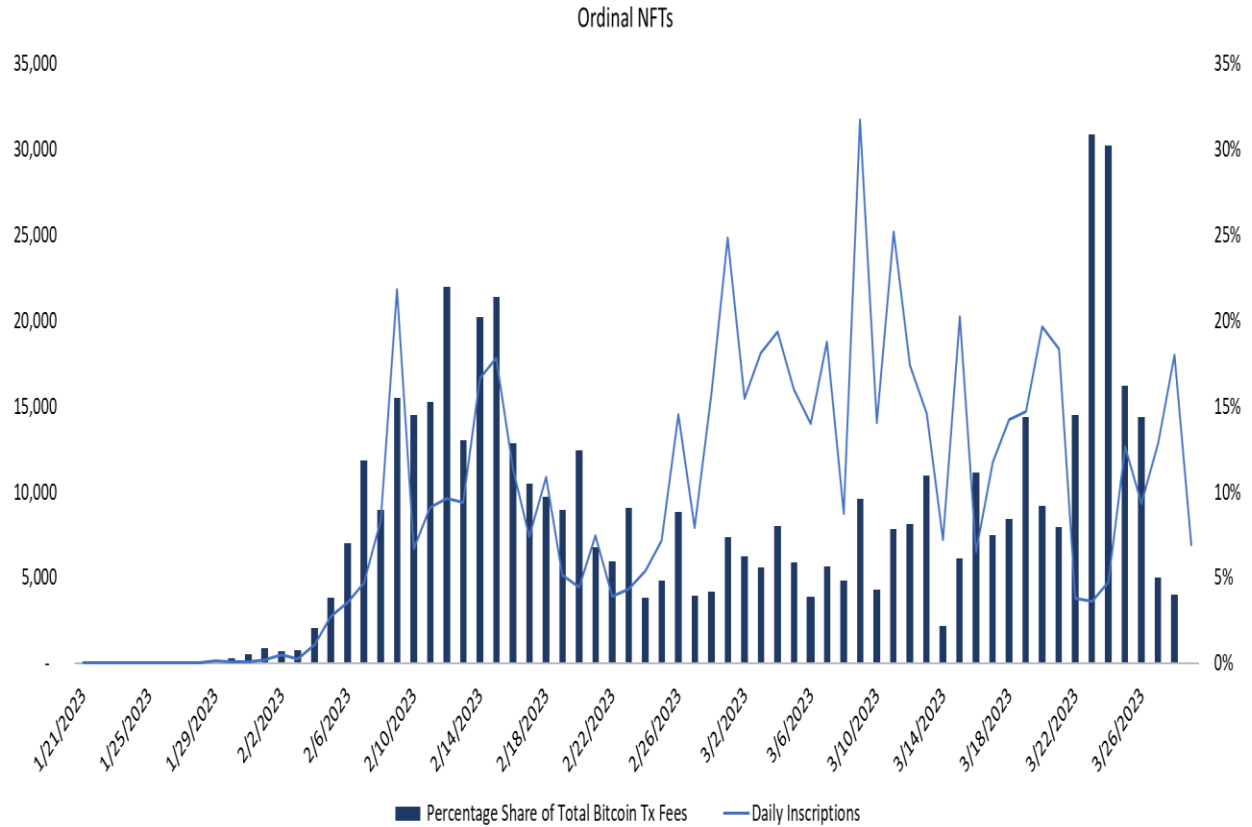
Security budget refers to the incentives in the form of revenue paid out to miners to maintain and secure the bitcoin network. Mining revenue from fees spiked in 2017 as there were fewer miners to meet the surging demand. This led to a backlog of unconfirmed transactions warranting high fees. In 2021, this was less of a problem, as more miners joined the network.



Source: Coin Metrics.

5. ORDINALS – AN INSIGHT INTO THE FUTURE

Largely due to Ordinals, Bitcoin’s mean block size has increased 52% from the 2022 average this year. As demand for block size increases, transaction fees increase in response. However, this could lead to congestion and inefficiency in the network. The complex task is to optimize block size to balance network efficiency and transaction fees.



Source: Dune Analytics. Glassnode.

Metric Definitions

1. Volume – The aggregated value of native units transferred between addresses on-chain.

2. Transfer Count – The sum count of transfers between addresses. It becomes more valuable when used in conjunction with Volume.

2.1 Low Transfer Count & High Volume: High volume but transferred by a few addresses.

2.2 High Transfer Count & Lower Volume - Indicates higher retail activity or exchanges amongst small accounts.

2.3 Lower Transfer Count & Lower Volume: Indicates slower network usage and low network demand.

2.4 High Transfer Count & Higher Volume- indicates high network usage. A persistent trend is substantial.

3. Active Users: Number of addresses active in the network as recipients or originators of ledger change. This includes value transfers, signing blocks, and other forms of ledger change activity.

3.1 High Value: High network usage and high demand.

3.2 Low Value: Low network usage and low demand.

4. User Growth Rate: The rate at which new addresses with non-zero balances are added to the network.

4.1 High Value: Indicates users being added to the network at an increasing rate.

4.2 Low Value: Indicates users being added to the network at a slower pace.

5. Valuation: This metric compares the on-chain volume to the realized capitalization representing the value of the network. Realized capitalization is a revised form of market capitalization that accounts for the value of the coin at the time the coin was last spent. A lower volume compared to the high value of the network indicates the network could be overvalued and vice versa.

5.1 High Value: Indicates the network is closer to its real value based on the on-chain volume.

5.2 Low Value: Indicates the network is very close to being overvalued considering the activity on the network.

5.3 Medium value: Asset is reasonably valued—sustainable demand for transactions.

6. Velocity –This indicator shows the turnover of coins in the network as measured by on-chain volume divided by active supply. The primary use of this metric in this instance is to help assess an asset’s market-relevant supply.

6.1 High Value: There is greater circulation of coins in the network and use for payments.

6.2 Lower Value: There is lower circulation of coins in the network and use for payments.

7. Network distribution – The metric used, the SER ratio, compares the smallest accounts (sum held by accounts with a balance less than 0.00001% of the supply) against the richest accounts (sum held by the top 1% addresses).

7.1 High value: Signifies high distribution of supply and higher decentralization.

7.2 Low value: Low supply distribution and heavy concentration amongst a few wallets.

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