

A Division of Coin Metrics

## CMBI Mining Indexes

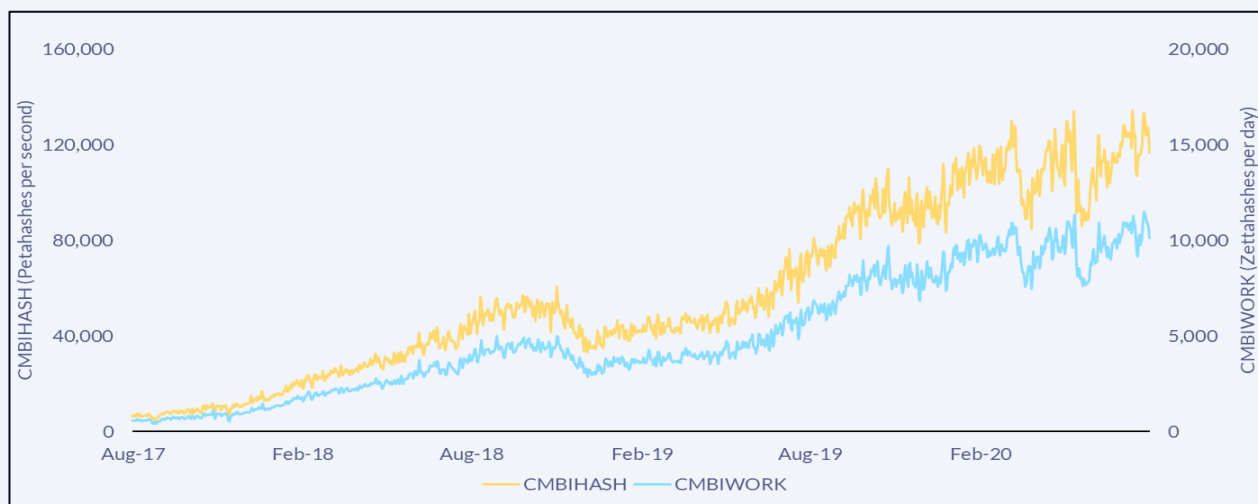
The CMBI Mining Indexes provide the cryptoasset community, investors and asset managers with publicly available and investable benchmarks that reliably and accurately track the activity of one of crypto's critical functions, mining. Currently, CMBI Mining Indexes are only available for Bitcoin.

The CMBI Bitcoin Hash Rate Index (CMBIHASH) represents the implied hash rate that miners are contributing to Bitcoin at any single point in time. CMBI Hash Rate Indexes utilize a 48hr lookback window to accurately reflect the current performance of miners whilst maintaining resistance to outlier results and potentially manipulative activities.

The CMBI Bitcoin Observed Work Index (CMBIWORK) utilizes the real-time levels from the CMBI Bitcoin Hash Rate Index to represent an approximation for the number of hashes that have been conducted over the previous 24hr period.

Indexes are designed to accurately reflect the performance of miners, be easily tradable and be readily accessible to market participants.

### Historical Performance\*



\* Performance of indexes prior to their respective launch date is back-fitted performance that utilizes historical block data

## Features

### Coverage

The CMBI Mining Index Series currently provides coverage for Bitcoin only.

### Objective

Mining indexes are designed to accurately represent mining activity and act as the basis for financial products including derivatives such as futures and swaps.

### Transparent

Index design and calculation follow a rules-based process that is publicly available on the Coin Metrics website.

### Investability

Assets launched in the CMBI Mining Index Series have been selected based on the size and activity of mining conducted on their network.

### Levels

The CMBI Hash Rate Index is measured in Petahashes/second. The CMBI Observed Work Index is measured in Zettahashes/day.

### Availability

Mining indexes are calculated every 5 seconds. The close price for the CMBI Mining Indexes is the 5 second level from 12:00ET.

## Performance

Name	Level	Level Change			Annualized Level Change		
		1M	3M	YTD	1 YR	3 YR	5 YR
CMBI Bitcoin Hash Rate Index	116,412 PH/s	-3%	11%	18%	79%	165%	217%
CMBI Bitcoin Observed Work Index	10,109 ZH	-1%	1%	16%	74%	164%	217%
Observed Work*	NA	9%	3%	NA	110%	NA	NA

\* Measure of performance during this period (i.e. not end of period levels) against the previous (e.g. last 3 months vs. 3 months before)

## Calendar Year Performance

Index	2019	2018	2017	2016	2015
CMBI Bitcoin Hash Rate Index	141%	180%	488%	204%	122%
CMBI Bitcoin Observed Work Index	150%	173%	500%	224%	NA

## Mining Related Network Data\*

	1M	3M	YTD	2019	2018	2017	2016
Blocks Produced Per Day	148	145	145	149	149	153	150
Mean Block Size (Bytes)	1,225,161	1,212,897	1,125,764	1,070,183	880,588	946,348	776,312
Mean Difficulty (millions)	16,645,553	15,743,564	15,399,968	8,995,568	4,970,596	829,120	204,648

\* Mining related network data is calculated using the Coin Metrics Network Data end of day values (00:00 UTC)

## Mining Revenues\*

Per Block	1M	3M	YTD	2019	2018	2017	2016
Mean Fee (BTC)	0.54	0.52	0.33	0.36	0.47	1.79	0.41
Mean Fee (USD)	\$5,276	\$4,982	\$2,991	\$2,867	\$5,204	\$9,902	\$248
Mean Subsidy (BTC)	6.25	7.03	10.16	12.50	12.50	12.50	19.07
Mean Subsidy (USD)	\$59,581	\$66,029	\$85,752	\$92,597	\$95,262	\$50,607	\$10,168
Mean Reward (BTC)	6.79	7.55	10.50	12.86	12.97	14.29	19.48
Mean Reward (USD)	\$64,857	\$71,012	\$88,743	\$95,464	\$100,466	\$60,508	\$10,417

\* Mining revenues are calculated using the Coin Metrics Network Data end of day values (00:00 UTC)

## Specifications

	CMBI Bitcoin Hash Rate Index	CMBI Bitcoin Observed Work Index
Launch Date	June 15, 2020	June 15, 2020
Base Date	Jan 1, 2015	Jan 2, 2015
Base Value	321.22	27.82
Calculation Unit	Petahashes* (PH) per second	Zettahashes* (ZH) per day

\* Peta = 10<sup>15</sup>; Zetta = 10<sup>21</sup>

## Contact Us

To learn more, visit  
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