

A Division of Coin Metrics

## CMBI Mining Series

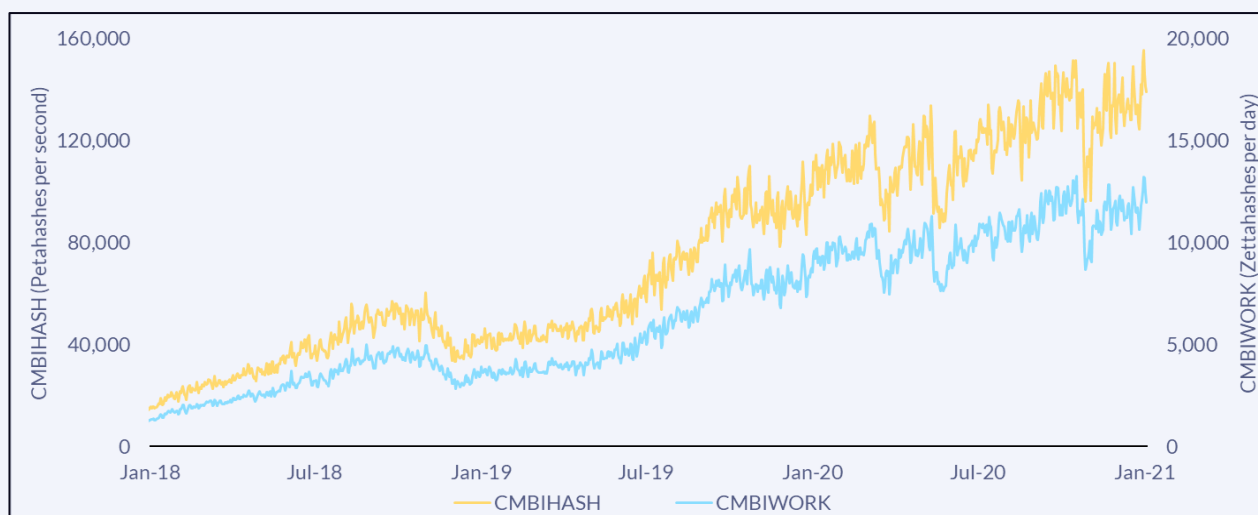
The CMBI Mining Series provide the cryptoasset community, investors and asset managers with publicly available and investable benchmarks that reliably and accurately track the activity of one of crypto's critical functions, mining. Currently, CMBI Mining Series are only available for Bitcoin.

The CMBI Bitcoin Hash Rate (CMBIHASH) represents the implied hash rate that miners are contributing to Bitcoin at any single point in time. The CMBI Bitcoin Hash Rate 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 (CMBIWORK) utilizes the real-time levels from the CMBI Bitcoin Hash Rate 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 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 Series have been selected based on the size and activity of mining conducted on their network.

### Levels

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

### Availability

Mining indexes are calculated every 5 seconds. The close price for the CMBI Mining Series 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	151,633	11%	9%	-2%	38%	113%	182%
CMBI Bitcoin Observed Work	12,589	2%	3%	-5%	36%	111%	184%
Observed Work (Change over period)*	NA	3%	4%	NA	79%	119%	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	2020	2019	2018	2017	2016
CMBI Bitcoin Hash Rate	58%	141%	180%	488%	204%
CMBI Bitcoin Observed Work	51%	150%	173%	500%	224%

## Mining Related Network Data\*

	1M	3M	YTD	2019	2018	2017	2016
Blocks Produced Per Day	146	144	150	145	149	149	153
Mean Block Size (Bytes)	1,290,186	1,268,332	1,370,419	1,183,294	1,070,183	880,588	946,348
Mean Difficulty (millions)	18,793,113	18,628,208	18,599,593	16,590,054	8,995,568	4,970,596	829,120

\* 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)	0.61	0.75	0.29	0.49	0.36	0.47	1.79
Mean Fee (USD)	\$14,393	\$12,843	\$9,010	\$6,123	\$2,867	\$5,204	\$9,902
Mean Subsidy (BTC)	6.03	6.18	4.17	8.52	12.50	12.50	12.50
Mean Subsidy (USD)	\$140,556	\$109,680	\$127,960	\$88,051	\$92,597	\$95,262	\$50,607
Mean Reward (BTC)	6.65	6.93	4.46	9.01	12.86	12.97	14.29
Mean Reward (USD)	\$154,949	\$122,524	\$136,970	\$94,174	\$95,464	\$100,466	\$60,508

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

## Specifications

	CMBI Bitcoin Hash Rate	CMBI Bitcoin Observed Work
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  
[coinmetrics.io/cmbi-indexes](https://coinmetrics.io/cmbi-indexes)

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