



CoinShares Hourly Reference Rates

Benchmark Statement

June 25th, 2021

Table of Contents

1	General Information	2
2	Index Description Objective	2
3	Regulatory Information	2
4	Index Methodology	3
4.1	Methodology Summary	3
4.2	Selected Exchanges	3
4.3	Data Sources	3
4.4	Index Disruption - Extraordinary events	3
5	Amendment to the Index methodology	4
6	Cessation of the Index	4
7	Disclaimer	5

1 General Information

Index Family Name : CoinShares Hourly Reference Rates

Initial Date of Publication : July 1st, 2021

Index Owner : Coinshares

Index Administrator : Compass Financial Technologies (France)

Index Calculation Agent : Compass Financial Technologies (France)

2 Index Description Objective

The CoinShares Hourly Reference Rates represent transparent cryptocurrency reference prices with independent governance and oversight.

The CoinShares Hourly Reference Rates are computed hourly, every day of the year. They are calculated at the end of every hour and are published around 5 minutes after the end of the hour.

The CoinShares Hourly Reference Rates can be accessed online on the Compass Financial Technologies website (www.compass-ft.com), Coinshares website (www.coinshares.com) or on Bloomberg or Refinitiv.

The CoinShares Hourly Reference Rates have been designed to provide institutional investors with independent and robust cryptocurrency reference prices. Based on a resilient and BMR compliant methodology, they serve as independent and transparent reference prices to value cryptocurrency portfolio.

The CoinShares Hourly Reference Rates are available for the following cryptocurrencies:

CoinShares Hourly Reference Rates		
Index	Bloomberg Code	Refinitiv Code
CoinShares Bitcoin Hourly Reference Rate - Continuous	CSBTCHR Index	.CSBTCHR
CoinShares Bitcoin Hourly Reference Rate - 4pm Fixing	CSBTC16R Index	N/A

Table 1: CoinShares Hourly Reference Rates Publication Codes

3 Regulatory Information

The CoinShares Hourly Reference Rates are non-significant benchmarks according to EU Regulation 2016/1011 given:

1. it is not used directly or indirectly within a combination of benchmarks as a reference for financial instruments or financial contracts or for measuring the performance of investments funds having a total average value of at least EUR 50 billion on the basis of all the range of maturities or tenors of the benchmark, where applicable, over a period of six months; and
2. it has market-led substitutes and, in the event that the benchmark ceases to be provided or is provided on the basis of input data no longer fully representative of the underlying market or economic reality or unreliable input data, the benchmark administrator does not anticipate a significant and adverse impact on market integrity, financial stability, consumers, the real economy or the financing of households or businesses in the EU.

4 Index Methodology

4.1 Methodology Summary

Each day, the CoinShares Hourly Reference Rates are calculated based on the collection of all observable transactions and order books snapshots of all respective Selected Exchanges. The calculation methodology of the CoinShares Hourly Reference Rate level for each cryptocurrency on each date and for each hour follow the steps below:

1. All the published trades on Selected Exchanges for each cryptocurrency against USD are used in the hourly reference rate calculation.
2. On each Selected Exchange, the exchange trades are grouped into a number of equally-sized 1-minute time intervals.
3. For each 1-minute interval and on each exchange, the interval price is calculated as the volume-weighted trade price.
4. For each hour and for each exchange, the exchange fixing price is calculated as the average of the available 1-minute intervals.
5. CoinShares Hourly Reference Rate is calculated as the weighted average of all the exchange fixing prices. The CoinShares Hourly Reference Rates Steering Committee reviews the list of exchanges and the weight allocated to each exchange whenever it appears necessary. In case where the exchanges list is amended and/or the weights change, the index rebalances based on the new Selected Exchanges list and the new weights on the next weekday following the index committee decision.

4.2 Selected Exchanges

The CoinShares Hourly Reference Rates pricing methodology is performed through tracking a subset of exchanges. The Selected Exchanges list and the weighting allocation by exchange are defined by the CoinShares Hourly Reference Rates Steering Committee based on liquidity and reputation constraints. The CoinShares Hourly Reference Rates Steering Committee can review this list and the weights as necessary as possible. In case of changes in Selected Exchange list or weights, the index rebalances based on the new Selected Exchanges list and the weighting allocation by exchange on the next weekday following the index committee decision.

The most recent Selected Exchanges list and Weights are available on the Compass website (www.compass-ft.com).

4.3 Data Sources

The hourly and daily price levels of CoinShares Hourly Reference Rates are calculated using historical tick-by-tick trade data and order book snapshots provided by Kaiko (www.kaiko.com). Kaiko is an independent digital assets market data provider based in Paris and has been operating since 2014. Kaiko collects, normalizes, stores, and delivers raw, normalized trade and quote data on 74 exchanges and more than 9'000 pairs. Kaiko has worked with over 300 customers globally, including, funds, institutions, regulators, academics and crypto start-ups. Kaiko's methodology is fully public and can be found on their website. Their data collection runs on multiple redundant global centers, which ensures the consistency of data delivery and their data is versioned to avoid being impacted by breaking changes.

4.4 Index Disruption - Extraordinary events

“Index Disruption Event” or “Extraordinary Event” means, in the determination of the Index Administrator, the occurrence of any of the following events affecting the Index:

1. Temporary loss of sufficient data

2. Index Contributor default to provide the input data on time
3. The Index Administrator considers that the Index Contributor cannot pursue its role as Index Contributor

If an Index disruption or an Extraordinary event occurs, the Index Administrator will take any appropriate action to remedy the disruption.

5 Amendment to the Index methodology

The Index methodology may be supplemented, amended in whole or in part, revised or withdrawn at any time. Supplements, amendments, revisions and withdrawals may also lead to changes in the way the Index is compiled or calculated or affect the Index in another way. In the absence of exceptional circumstances affecting the Index calculation or methodology, the Index is reviewed annually. Changes in Index methodology decided during the annual review will be published on the Compass website (www.compass-ft.com).

The Index Administrator shall inform Index licensees of any amendment to the Index methodology with reasonable prior notice. The notification document shall provide Index licensees with the amendments, the reasons for making such amendment and the effective date of the changes.

6 Cessation of the Index

The Index Administrator has established procedures to be followed for termination of a CoinShares Hourly Reference Rate. Any termination of a CoinShares Hourly Reference Rate must be approved in advance by the Index Committee. A notice to licensees will be published in advance of the termination. Before disactivating an index, the Index Administrator always determines whether there are any listed financial products issued on that index as the underlying. The Index Administrator terminates indices only provided that:

- All existing commercial customers have been consulted, and commercial relationships have been terminated or transitioned accordingly.
- Consultations with stakeholders have not led to the decision to continue the index.

The Index Administrator is not responsible for determining or offering an alternative index to its subscribers or other stakeholders when the Index is terminated. However, the Index Administrator may recommend an alternative index if it considers, based on various criteria, that this alternative index could be a credible substitute index.

7 Disclaimer

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