

Kaiko Constant Duration Indices

Rulebook

About Kaiko Indices

Kaiko Indices offers institutional-grade benchmarks and indices, setting the standard for reliability and transparency in the digital asset market. As a regulated Benchmark Administrator under the EU BMR framework and compliant with IOSCO principles, we empower exchanges, asset managers, and financial institutions with trusted data solutions that support robust settlement and risk management practices.

Version History

Version	Publication Date	Comments
1.0.0	19/05/2025	Created

Table of contents

- 1. Introduction**
- 2. Data Sources**
 - 2.1. Market Data
 - 2.2. Kaiko Reference Rates
- 3. Index Calculation**
 - 3.1. Index Description
 - 3.2. Formula
- 4. Publication & Review**
 - 4.1. Publication Events
 - 4.2. Scheduled Review and Rebalancing
 - 4.3. Extraordinary Review
- 5. Index Governance**
 - 5.1. Committee Oversight
 - 5.2. Expert Judgement
 - 5.3. Transparency, Consistency & Independence

1. Introduction

Over the past decade, the cryptocurrency market has grown exponentially, attracting a diverse range of investors seeking innovative opportunities beyond traditional financial instruments. In this rapidly evolving digital asset landscape, Kaiko has established itself as a pioneer, providing comprehensive cryptocurrency data—from trades on centralized and decentralized exchanges to advanced analytical metrics.

As digital assets mature into a recognized and investable asset class, the demand for reliable, rules-based, and transparent benchmarks has become essential. Investors increasingly seek comprehensive market coverage and a structured segmentation framework to better understand and capitalize on market trends.

Kaiko Indices offers a robust framework for measuring and tracking the performance of the digital asset market, leveraging institutional-grade methodologies for index construction. Designed to meet the evolving needs of investors, Kaiko Indices ensures broad market coverage, precise classification, and a transparent governance structure.

Kaiko Indices' approach to index design is built on four fundamental principles:

Transparency

Kaiko Indices is committed to maintaining a clear and objective methodology, ensuring market participants have full visibility into index construction, data sources, and governance. Our methodologies are publicly available, allowing investors to understand the calculation processes and ensure alignment with industry best practices.

Investability

Kaiko Indices products are designed to be investable and replicable, enabling the creation of financial products that accurately reflect market trends. Through a rigorous asset vetting process incorporating liquidity and size filters, our indices ensure that constituents are both representative of the market and readily accessible for trading.

Innovation

Kaiko Indices continuously innovates by expanding its offerings and integrating cutting-edge methodologies to ensure its indices remain robust, relevant, and aligned with market trends. The Kaiko Indices product suite remains dynamic and forward-thinking, empowering investors to capitalize on the latest opportunities in the digital asset ecosystem.

Governance

Kaiko Indices adheres to a robust governance framework, with periodic methodology reviews, structured oversight, and predefined processes to ensure index integrity. All indices undergo regular maintenance and rebalancing to reflect market conditions while maintaining stability and consistency over time.

This document outlines the principles, policies, and procedures governing the construction and maintenance of Kaiko Indices. It provides a detailed framework for index methodology, including asset selection, weighting criteria, calculation methodologies, and governance processes. Unless explicitly stated otherwise, these guidelines apply to all indices within the Kaiko Investable Universe.

2. Data Sources

2.1. Market Data

1. Data Provider: Kaiko

Founded in 2014, Kaiko is the leading provider of cryptocurrency market data, analytics, and indices, offering businesses institutional-grade, regulatory-compliant solutions. Kaiko empowers market participants with global connectivity to real-time and historical data feeds across the world's leading exchanges.

2. Coverage

Kaiko covers more than a hundred digital assets exchanges and 10,000 pairs globally. It operates an institutional grade technical stack with storage and collection run on redundant, geographically dispersed servers. Kaiko's unbiased data is used for trading, research, valuation and/or display purposes, with major market participants.

3. Kaiko Benchmark Reference Rates & Kaiko Reference Rates

Kaiko Indices will use the suite of [Benchmark Reference Rates and Reference Rates](https://www.kaiko.com/indices/benchmarks)¹ for the purposes of calculating the Indices. Designed to bring greater transparency to pricing, these are rules-based and independent rates established from executed trades from centralised exchanges. Each Reference Rate is calculated real-time (every 5 seconds), as well as being published as a daily fixing covering three different time zones: London 16:00 UTC, Singapore 08:00 UTC, New York 20:00 UTC. For more detailed information, please refer to [section 3.2](#).

1- <https://www.kaiko.com/indices/benchmarks>

3. Index Construction

3.1. Derivative Trade data

Since 2014, Kaiko has provided comprehensive cryptocurrency market data, offering global insights across spot and derivatives markets. Level 1 and 2 data covers trading activity, order books, and liquidity insights for both centralized and decentralized markets.

Comprehensive Coverage Complete market data coverage for over 100 exchanges, covering all traded assets

Fully Normalized Normalized data formats enabling seamless consumption.

Historical and Live The most complete historical data and real-time feeds.

Highly Granular Available at granular tick-level, as regular snapshots, or as aggregated metrics

Calendar Future data coverage

- Binance
- OKEX
- CME
- Huobi
- ErisX
- Deribit
- BitMEX
- BTMX
- AsiaNext
- Gate.io
- Bybit
- Currency.com
- CryptoFacilities

3. Index Construction

3.2. Kaiko Reference Rates

Kaiko Indices calculates its indices using prices derived from its suite of [Reference Rates and Benchmark Reference Rates](#)¹. These rates serve as the underlying components, and their prices are incorporated into the computation of the Index Value. To ensure accuracy and reliability, a rigorous exchange selection process and a robust price aggregation methodology are applied, as outlined in the [Reference Rates methodology](#)²:

Exchange Due Diligence

All centralized exchanges are thoroughly evaluated, and only those that meet rigorous reliability and transparency standards are included in the hard-vetted exchange list. This list is reviewed on a quarterly basis, with exchanges categorized into two tiers based on their compliance with predefined vetting criteria. The composition of Benchmark Reference Rates is derived from the hard-vetted exchanges, ensuring adherence to strict reliability and transparency standards. In contrast, Reference Rates incorporate data from exchanges that meet fundamental eligibility criteria, providing a broader yet systematically screened dataset.

Criteria	Basic Vetting	Hard Vetting
Absent from any sanction list	Yes	Yes
Located in stable and open country	-	Yes
Has been operating for the past	-	5 Years
Regulated by an independent government body	-	Yes
KYC/AML controls	-	Strong
Trading Policies	-	Significant
Offers REST API & WebSocket data feeds	-	Yes
Offers live & historical trade data	-	Yes
Provide cold storage for customers funds	-	Yes

Liquidity Optimization

From the curated exchange list, an optimization process selects the most relevant exchanges to maximize liquidity and offer accurate price discovery.

Robust Aggregation Method

A Volume-Weighted Median combined with a Time-Weighted Average Price (TWAP) methodology is applied to derive fair and representative prices based on executed transactions from the selected exchanges.

Quarterly Reviews

The exchange constituents and calculation window of the Reference Rates are reviewed quarterly to ensure alignment with prevailing market conditions.

Buffering Rules

For Benchmark Reference Rates, buffering mechanisms are implemented to minimize unnecessary parameters turnover during rebalancing, thereby maximizing liquidity coverage and maintaining methodological consistency.

1- <https://www.kaiko.com/pages/reference-rates>

2- [https://marketing.kaiko.com/hubfs/Factsheets/Kaiko%20Benchmark%20Rates%20Rulebook%20-%20202212%20\(1\).pdf](https://marketing.kaiko.com/hubfs/Factsheets/Kaiko%20Benchmark%20Rates%20Rulebook%20-%20202212%20(1).pdf)

4. Kaiko CDF Index

4.1. Index Description

The Kaiko Constant Duration Indices measure the performance of futures contracts with a constant time to expiry. It allows the index to effectively reflect the price of futures mitigating the rollover volatility and can serve as an underlying price feed for leveraged financial instruments.

Name	Code	Dissemination	Inception
VALR-KAIKO CDF BTCUSD Index	VALR-KAIKO_CDF_BTCUSD	Regional Fixing (Central Europe)	2025. 05. 01
VALR-KAIKO CDF ETHUSD Index	VALR-KAIKO_CDF_ETHUSD	Regional Fixing (Central Europe)	2025. 05. 01

4.2. Index Features

The Kaiko Constant Duration Indices publishes its daily fixing price using two data sources, quarterly calendar futures trades and the Kaiko Reference Rate.

Features	Description
Exchange of Futures	Binance (binc)
Type of the futures	Quarterly calendar futures
Asset	Bitcoin(BTC) and Ethereum (ETH)
Calculation Summary	With the Tether(USDt)-quoted futures trades, the weighted averaged future price is calculated based on its time to maturity. Final price is quoted USD after being converted using Kaiko Reference Rate (<i>KK_RFR_USDTUSD</i>).
Publication	Daily fixing at 17h30 in Central European Time
Rebalancing	Upon the expiration date of the futures, the underlying futures contracts are automatically rolled over. Extraordinary reviews may occur in cases of observed market manipulation or significant liquidity loss in the relevant futures market.

4. Kaiko CDF Index

4.3. Index Calculation

$$CDF(t_0, t_1, P_1, P_0, t, CD) = \left[\frac{(t_1 - t - CD) * P_0 + (CD - (t_0 - t)) * P_1}{(t_1 - t_0)} \right] * \frac{\text{Quoted Currency of Futures}}{USD}$$

where

t_0 = date of front future

t_1 = date of back future

t = today's date

$CD = \max(t_1 - t_0, t_0 - t)$, the constant duration

P_0 = quoted price of front future

P_1 = quoted price of back future

Front Future

A future with the nearest expiration date among the available futures

Back Future

A Future with the second nearest expiration date among the available futures

Price of Futures (P0, P1)

1-min Volume Weighted Average Price (VWAP) at the publication time. If it's not available due to the lack of liquidity, the last traded price is used as a fallback solution

Quoted Currency of Futures / USD

Kaiko Reference Rate (i.e. if futures is traded in Tether(USDt), Kaiko Reference Rate USDT price is used to convert the USDt price to USD.

5. Publication & Review

4.1. Publication Events

Fixing publications are scheduled recurring events that occur at a granularity slower than a minute, typically aligning with key market closing times. These fixing events are assumed to take place daily. In order to incomplete index aggregation due to potential underlying price unavailability, an Indices Publication Buffer is applied before computing the index value.

- Publication interval: **1 day**
- Indices Publication Buffer: **5 seconds**

Kaiko Indices daily fixings:

- Europe - Central Europe time - **17:30**

4.2. Scheduled Review and Rebalancing

The underlying futures of Kaiko Constant Duration Index automatically rolls over to the next available futures contract upon expiration. Due to its design, the Kaiko Constant Duration Index does not undergo scheduled reviews or rebalancing.

4.3. Extraordinary Review

Kaiko Indices reserves the right, based on its qualified expert judgment, to exclude or replace an underlying futures and reference rates through the Review. Such an extraordinary action may be taken if the asset is found to be subject to any of the following exclusion criteria:

- Market manipulation
- Significant loss of volume or liquidity

In such cases, the Kaiko Index Administration Committee will publish its findings, and the asset will be excluded from index calculations two days after the initial public communication.

Extraordinary Review Procedure

Step 1 – Event

Anytime between ordinary reviews

Identification by the Kaiko Indices team of an exclusion action

Step 2 – Public communication

Within the next 24 hours

Kaiko Indices Administration Committee publish its findings and asset replacement if recommended

Step 3 – Asset adjustment

3 days later

The Index Administration Committee recommendation is effective

6. Index Governance

5.1. Committee Oversight

Kaiko Indices has established a robust governance framework structured around dedicated committees overseeing index operations, administration, and benchmark oversight. These committees comprise representatives from across Kaiko, including Kaiko Indices, with each member focusing on key oversight areas such as risk, compliance, methodology governance, and data sufficiency.

This structured approach ensures that decisions are not made unilaterally, but rather through rigorous challenge and discussion, considering all relevant factors before finalization. The committees operate in strict adherence to Kaiko Indices' methodologies and policies, reinforcing the integrity, transparency, and robustness of the indices.

5.2. Expert Judgment

Kaiko Indices is committed to ensuring that all index-related decisions are driven by predefined methodologies and policies, minimizing the risk of inconsistent or discretionary decision-making. However, in complex market conditions, certain situations may require the application of expert judgment. Where practicable, such decisions are escalated to the relevant governance committee, with all instances documented and reviewed by the Oversight Committee to ensure transparency and consistency. If a judgment-based decision arises in a scenario not explicitly covered by the methodology, Kaiko Indices will publicly disclose the details of the decision-making process.

5.3. Transparency, Consistency and Independence

Kaiko Indices is committed to transparently communicating all major decisions related to index calculation and administration, ensuring that stakeholders receive timely and non-selective disclosure of relevant information. To maintain alignment with market needs, Kaiko Indices actively seeks feedback from users and stakeholders and will conduct regular consultations whenever methodology changes are under consideration.

Disclaimer

This document and all of the information contained in it, including without limitation all text, data, graphs, charts (collectively, the “Information”) is the property of Challenger Deep SAS or its subsidiaries (collectively, “Kaiko”) and is provided for informational purposes only. The Information may not be modified, reverse-engineered, reproduced or disseminated in whole or in part without prior written permission from Kaiko. All rights in the Information are reserved by Kaiko. The Information may not be used to create derivative works or to verify or correct other data or information. For example (but without limitation), the Information may not be used to create indexes, databases, risk models, analytics, software, or in connection with the issuing, offering, sponsoring, managing or marketing of any securities, portfolios, financial products or other investment vehicles utilizing or based on, linked to, tracking or otherwise derived from the Information or any other Kaiko data, information, products or services. The user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. KAIKO DOES NOT MAKE ANY EXPRESS OR IMPLIED WARRANTIES OR REPRESENTATIONS WITH RESPECT TO THE INFORMATION (OR THE RESULTS TO BE OBTAINED BY THE USE THEREOF), AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, KAIKO EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES (INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF ORIGINALITY, ACCURACY, TIMELINESS, NON-INFRINGEMENT, COMPLETENESS, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) WITH RESPECT TO ANY OF THE INFORMATION.

Pic. 1 – Caption goes here, source

CONTACT

Paris

33 rue du Louvre
75002 Paris
France

Singapore

30 Prinsep St
Singapore
188647

New York

500 7th Ave
New York, NY 10018
United States

London

34-37 Liverpool Street
London
EC2M7PP



www.kaiko.com



This content is the property of Kaiko, its affiliates and licensors. Any use, reproduction or distribution is permitted only if ownership and source are expressly attributed to Kaiko. This content is for informational purposes only, does not constitute investment advice, and is not intended as an offer or solicitation for the purchase or sale of any financial instrument.

© 2022, Kaiko