

Kaiko Single Asset Reference Rates

Benchmark Statement

INTRODUCTION

This Benchmark Statement has been developed by Kaiko Indices SAS ("Kaiko Indices" or the "Administrator") for the Kaiko Single Asset Reference Rates Family, which comprises reference rates designed to provide reliable and representative pricing for individual digital assets. This Benchmark Statement is published in compliance with Article 27 of Regulation 2016/1011 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds (the "BMR").

1.1 BMR Applicability to Single Asset Reference Rates

While at first glance, single asset reference rates might not appear to fall under the scope of the BMR, the unique structure of the digital asset market necessitates consideration under the regulatory framework. Unlike traditional financial markets, where pricing for individual assets might be derived from a single regulated venue, digital assets trade across multiple exchanges globally with significant price disparities.

The Kaiko Single Asset Reference Rates involve sophisticated transaction data aggregation from multiple exchanges; each vetted through a rigorous exchange ranking methodology. This multi-source approach to determining a single reference price falls within the BMR definition of an "index" under Article 3(1)(1), which defines an index as "any figure that is published or made available to the public and that is regularly determined...by the application of a formula or any other method of calculation... based on the value of one or more underlying assets or prices."

Using these reference rates as benchmarks in financial instruments contracts or for measuring investment fund performance brings them within the scope of the BMR. The Administrator has, therefore, developed this Benchmark Statement to ensure full compliance with regulatory requirements and provide users transparency.

Kaiko Indices provides non-significant benchmarks per the definition in the BMR. Kaiko Indices was registered on April 20th, 2018 by the French Financial Markets Authority (the "AMF") as a Benchmark Administrator. The European Securities and Markets Authority ("ESMA") has included Kaiko Indices in its register of Benchmark Administrators approved to carry on the regulated activity of administering a benchmark.

2. GENERAL INFORMATION

2.1 Date of Publication and Last Update

This Benchmark Statement was first published on July 31st, 2025, and was most recently updated on July 31st, 2025.

2.2 Review of Benchmark Statement

Kaiko Indices SAS reviews this Benchmark Statement at least once every two years or whenever changes occur to the Kaiko Single Asset Reference Rates Family that require updates to this document. Additional reviews occur if there are material changes in regulations, market conditions, or benchmarks.

2.3 Key Definitions

1. **Administrator:** Kaiko Indices SAS, a company registered in France and registered by AMF as a benchmark administrator under Article 34 BMR.
2. **Benchmark:** Any index by reference to which the amount payable under a financial instrument or a financial contract, or the value of a financial instrument, is determined, or an index that is used to measure the performance of an investment fund with the purpose of tracking the return of such index or of defining the asset allocation of a portfolio or of computing the performance fees. For an index to be a benchmark, it must have at least one supervised entity as a user.
3. **Benchmark Family:** A group of benchmarks provided by Kaiko Indices SAS determined from input data of the same nature and providing specific measures of the same or similar market or economic reality.
4. **Reference Rate:** A benchmark value derived from the prices of actual transactions in a specific digital asset, aggregated from multiple exchanges according to the methodology.
5. **Kaiko Reference Rate (RFR):** A reference rate that uses a static time window calculation and requires at least one exchange to be included in the rate.
6. **Kaiko Benchmark Reference Rate (BRR):** A more robust reference rate that uses a dynamic time window calculation and requires at least three exchanges to be included in the rate.
7. **Index team:** The personnel at the Administrator who are directly involved in the day-to-day operations of benchmark provision, including collecting and processing input data, applying the calculation methodology, performing rebalancings, and maintaining the benchmarks.

8. **Input Data:** The data used to determine a benchmark.
9. **Non-Significant Benchmark:** A benchmark that does not fulfill the conditions for being a critical or significant benchmark defined in Articles 20(1) and 24(1) of the BMR.
10. **Readily Available Data:** Data accessible to the Administrator without needing to be contributed by third parties. This differs from "publicly available" data in that it may include proprietary data accessible to the Administrator but not necessarily available to the general public free of charge.

3. BENCHMARK FAMILY

3.1 Market or Economic Reality

The Kaiko Single Asset Reference Rates Family measures the market price of individual digital assets based on executed transactions across multiple exchanges. These reference rates provide reliable pricing information for the digital asset market by aggregating data from exchanges that meet Kaiko's rigorous vetting criteria.

Each reference rate represents the fair market value of a specific digital asset at a given point in time. The Kaiko Single Asset Reference Rates Family includes the benchmarks specified in **Appendix I**.

3.2 Geographical Boundaries

The Kaiko Single Asset Reference Rates Family does not impose geographical boundaries. Digital assets are global, decentralized, and without a specific geographical location. However, the reference rates only consider digital assets traded on exchanges that meet Kaiko's exchange ranking criteria, regardless of the exchange's geographical location.

3.3 Actual or Potential Benchmark Users

The reference rates within the Kaiko Single Asset Reference Rates Family may be used for:

1. Valuation of digital asset portfolios and investment funds
2. Settlement of digital asset derivatives and contracts
3. Creation of financial products, including ETFs, ETPs, structured products, and derivatives
4. Risk management and performance attribution
5. Market analysis and research

3.4 Input Data

The input data used for the Kaiko Single Asset Reference Rates Family consists of executed trade data from vetted exchanges determined through Kaiko's exchange ranking process. All input data is sourced from readily available sources, specifically Challenger Deep SAS, the calculation agent and data aggregator.

Importantly, Kaiko does not rely on data contributors to determine these benchmarks. The data is verifiable, replicable, and subject to continuous monitoring for quality and accuracy.

The full methodology details regarding input data, calculation methods, and selection criteria are available in the Kaiko Digital Assets Rates Rulebook published on the Kaiko website.

4. EXPERT JUDGMENT AND DISCRETION

Expert judgment or discretion may be exercised when administering reference rates in extraordinary cases. The benchmark administrator has a methodology with clear rules identifying how and when discretion may be exercised when determining a benchmark. All benchmarks governed by this statement shall have the possibility to be subject to discretion in the determination of the benchmark if:

1. The input data is insufficient, unreliable, unavailable, or appears to be of a lower quality than alternative data sources not initially specified in the methodology;
2. There are periods of market stress, extraordinary volatility, liquidity constraints, or technical disruptions affecting normal market operations;
3. The standard methodology cannot adequately address unusual market conditions or unforeseen circumstances not explicitly covered by existing rules;
4. Crypto-specific events occur, such as hard forks, airdrops, or other blockchain governance events, exchange outages, trading halts, or severe price dislocations across venues, significant changes in consensus mechanisms, regulatory actions, or material legal developments affecting constituent assets, security incidents including hacks, exploits, or suspected manipulative activity, custodial limitations or changes in institutional support, or significant changes in market structure or participant behavior;
5. Technical constraints prevent the strict application of the methodology as written.

When exercising discretion, the index team may:

1. Substitute or supplement primary data sources with alternative sources deemed appropriate, including but not limited to additional exchanges, pricing feeds, or reference rates;

2. Modify the timing, frequency, or calculation window for data collection, index calculation, or rebalancing events;
3. Conduct unscheduled rebalancing or composition reviews outside of regular intervals when market conditions warrant;
4. Temporarily exclude, cap, or apply special weighting treatments to affected constituents;
5. Apply filters, statistical methods, or alternative calculation approaches to ensure continuity and representativeness of the benchmark(s);
6. Use historical data over modified timeframes to smooth anomalies or compensate for missing data points;
7. Use volume-weighted averages, time-weighted averages, median values, last traded prices, or expert-assessed fair values when standard price discovery mechanisms are compromised;
8. Postpone scheduled methodology changes or constituent adjustments until market conditions normalize; or
9. Take any other reasonable action the index team deems necessary to maintain the benchmark's integrity, continuity, and representativeness, even if not explicitly enumerated herein.

When exercising discretion, the index team will:

1. Prioritize maintaining the benchmark's ability to represent accurately the underlying market or economic reality it is designed to measure;
2. Consider the potential impact on benchmark users, market integrity, and investor protection;
3. Document the rationale, scope, and duration of any discretionary measure implemented;
4. Submit all instances of discretion to review by the oversight function as soon as practicable; and
5. Maintain detailed records of all discretionary decisions per Article 8 of the BMR.

5. REGULATORY ASPECTS

5.1 Benchmark Classification

The Kaiko Single Asset Reference Rates Family is classified as non-significant benchmarks under Article 3(1)(27) of the BMR, as they do not meet the criteria for critical benchmarks under Article 20(1) or for significant benchmarks under Article 24(1). Each reference rate in this family is used, either directly or indirectly, as a reference in financial instruments,

contracts, or to measure the performance of digital asset investment funds with a total average value under EUR 50 billion, measured over six months, per Article 24(1) of the BMR.

5.2 Market Reality Represented

Following Article 27(1)(a) of the BMR, the Kaiko Single Asset Reference Rates Family defines and represents the market or economic reality of individual digital assets traded on exchanges vetted through Kaiko's exchange ranking process. The measurement may become unreliable under circumstances where:

1. Trading on major exchanges is suspended or disrupted
2. Regulatory action significantly alters the tradability of the digital asset
3. Technological failures or security breaches affect market data
4. Extreme market volatility occurs
5. Liquidity decreases significantly across exchanges

6. GOVERNANCE AND CONTROL FRAMEWORK

6.1 General Principles and Requirements

1. Input data must accurately represent the benchmark's intended market reality.
2. Priority is given to transaction data. Other data types are used only if transaction data is insufficient.
3. Input data must be verifiable and replicable.
4. Guidelines for data type priority and discretion use are published in the relevant methodology.

6.2 Approval Process of New Benchmarks

The index team develops new benchmarks. The oversight function reviews the proposal, methodology, and robustness testing results. The oversight function approves. The general counsel ensures compliance with BMR Article 12.

6.3 Approval Process of Changes to Existing Benchmarks

The index team proposes changes to existing benchmarks. The oversight function reviews changes. The oversight function approves. The general counsel reviews compliance implications.

6.4 Overview of Control Framework

Kaiko Indices SAS has established a control framework for administering the Kaiko Single Asset Reference Rates Family per Article 5 of the BMR. This framework includes:

1. Clear organizational structure with well-defined roles and responsibilities
2. Risk management process for identifying and addressing potential conflicts of interest
3. Control mechanisms for reference rate calculation, dissemination, and publication
4. Oversight function composed of independent members
5. Record-keeping policies and procedures for all aspects of reference rate administration

6.4.1 Oversight Function

The oversight function includes members not directly involved in providing the benchmarks and operates with a separate contract between Kaiko Indices and the oversight function member. Its responsibilities include:

1. Approving new benchmark methodologies and benchmark launches
2. Approving and overseeing material changes to existing benchmark methodologies
3. Overseeing the benchmark calculation and administration process
4. Reviewing and approving extraordinary decisions related to benchmark maintenance
5. Reviewing the benchmark's definition and methodology
6. Overseeing the control framework and management of the benchmark
7. Reviewing and approving procedures for cessation of benchmarks
8. Overseeing third-party involvement in benchmark provision
9. Assessing internal and external audits or reviews

6.5 Input Data Verification

Kaiko employs robust procedures to verify input data:

1. Data is compared across multiple independent digital asset exchanges
2. Anomalies, such as abnormal deviation from the median, are investigated
3. Exchanges with substantial and persistent anomalies may be removed from the eligible exchanges list
4. Accuracy is verified by comparing available data with other trusted sources
5. Data quality metrics are registered and monitored, including missing values, time between data points, and response times

6.6 Calculation Agent Relationship

Challenger Deep SAS operates as the calculation agent for Kaiko Indices SAS, providing data aggregation and calculation services. While both entities operate within the same corporate group, clear functional separation ensures independence and regulatory compliance. Specifically:

1. Kaiko Indices SAS, as the Administrator, retains complete methodological control and ultimate responsibility for benchmark provision.
2. Challenger Deep SAS performs technical functions limited to data collection and mathematical calculation, without influencing benchmark methodologies.
3. This relationship is structured to comply with the BMR requirements for group structures, with comprehensive oversight procedures, information management protocols, and independent decision-making processes.
4. Kaiko Indices maintains full accountability for meeting all regulatory requirements, conducting continuous monitoring and assessment to preserve benchmark integrity.

6.7 Complaints Handling

Kaiko Indices SAS maintains a complaints-handling procedure that enables stakeholders to submit complaints regarding reference rate determinations or calculation processes. All complaints are investigated, and appropriate measures are taken to address valid concerns.

Benchmark users can submit complaints by emailing indices@kaiko.com.

6.8 Replicability

Kaiko ensures reference rate replicability via a dedicated replication API, providing reference rate composition, calculation data, and methodology information. This allows users to verify and replicate indices independently.

7. STAKEHOLDER INFORMATION

7.1 Consultation on Material Changes

Kaiko Indices SAS commits to consulting stakeholders on any proposed material change to the reference rate methodology. The consultation process includes:

1. Publishing the proposed changes with clear explanations of the rationale

2. Providing a timeframe that allows analysis and commenting on the impact of the proposed changes
3. Making comments and Kaiko's response to those comments accessible after consultation

7.2 Material Change Definition

A material change is defined as any change that would result in a substantially different benchmark, such as the benchmark changing what underlying economic reality it intends to capture, significant changes to selection criteria, change of benchmark administrator (unless in the same group), or cessation of the administrator's registration.

7.3 Notice Period

All material changes are subject to an advance notice published by Kaiko Indices SAS at least 60 days before the change, including a clear time frame that allows reference rate users and market participants to adjust their processes.

7.4 Benchmark Discontinuation

If a reference rate must be discontinued:

1. The index team proposes discontinuation.
2. The oversight function reviews and approves discontinuation.
3. Stakeholders receive a six-month notice period.
4. Affected stakeholders are offered a consultation period to transition smoothly.

Kaiko Indices may apply a shorter notice at its discretion if the affected index is not used or licensed by any supervised entity or if all affected users agree to a shorter notice.

8. MARKET EVENTS

8.1 Handling of Specific Digital Asset Events

8.1.1 Forks

For a fork to be considered in a reference rate calculation, it must:

1. Be deemed material (have a reliable wallet solution, sufficient liquidity, and be forked from a current component)

2. Meet forking evaluation criteria (be listed for spot trading on eligible exchanges, have a different ticker symbol, and demonstrate higher market capitalization than the current component for ten consecutive days)

8.1.2 Airdrops

Airdrops are not included in reference rate calculations. They are treated according to the fork rules if technically equivalent to forks.

8.1.3 Staking

Staking returns are not included in reference rate calculations unless explicitly specified in the relevant methodology.

8.1.4 Token Upgrades

Token upgrades occur when an existing crypto asset is replaced with a new token in a 1:1 ratio. This may happen for technical improvements, governance updates, or rebranding. The new token typically inherits the original token's functionality and market role. In some cases, the original token may remain active temporarily alongside the new token.

The upgraded token must meet the same eligibility criteria to replace the original token. The new token may replace the original token and inherit its historical data in a reference rate if the new token meets the eligibility criteria. Only one token will be referenced in a reference rate after the upgrade.

8.2 Data Management Procedures During Market Disruptions

Kaiko Indices maintains clear procedures for managing data during market disruptions:

1. **Immediate Response:** Kaiko temporarily suspends or delays reference rate calculations if critical input data is compromised, unreliable, or unavailable.
2. **Fallback Procedures:** Predefined contingency measures are activated, including alternative verified sources, historical prices, median or volume-weighted averages, and expert-assessed fair values to maintain reference rate continuity and accuracy.
3. **Communication:** Stakeholders are promptly informed about disruptions, fallback measures activated, and expected resolution timelines via established communication channels.
4. **Post-Event Review:** After disruptions, Kaiko conducts thorough reviews, documenting lessons learned and implementing improvements to mitigate future disruptions.

9. RISK DISCLOSURES

9.1 Market Structural Risks

9.1.1 Dependence on Exchange Data

The Kaiko Single Asset Reference Rates rely on data from digital asset exchanges, which may experience downtime, liquidity fluctuations, or data inaccuracies. These interruptions could affect the accuracy of the reference rates. Kaiko employs multiple vetted exchanges as data sources to mitigate this risk and implements continuous monitoring and validation procedures.

9.1.2 Liquidity Constraints and Market Fragmentation

Digital asset markets can experience periods of low liquidity, especially during market downturns or heightened volatility. In these conditions, price calculations could be impacted by thin trading volumes or wider spreads, leading to less stable reference rate values.

9.1.3 Regulatory Changes

Regulatory shifts could impact data sources, the availability of specific digital assets on exchanges, or the calculation of reference rates. For instance, increased regulation in certain jurisdictions might restrict access to certain assets, exchanges, or price data, limiting the effectiveness or relevance of the benchmarks.

9.1.4 Asset Volatility and Market Maturity

The digital asset market remains relatively young and volatile compared to traditional asset classes. Significant price swings can affect the stability and predictability of the reference rates.

9.2 Circumstances of Reduced Input Data Reliability

9.2.1 Market Disruptions

During significant market disruptions (e.g., exchange outages, extreme volatility events), input data reliability may be compromised. Kaiko employs a Fixed Indices Publication Buffer before the computation of reference rate values to prevent incomplete aggregation. The reference rate value is not computed if any underlying price is missing in this buffer.

9.2.2 Data Quality Issues

Kaiko continuously monitors data quality. The reference rate value is not computed if any underlying price is identified as potentially suspect. This protects the integrity of the reference rates during periods of questionable data quality.

9.2.3 Blockchain Network Events

Events specific to digital assets, such as forks, airdrops, or staking, can disrupt regular trading patterns. Kaiko has established protocols for handling such events, including clear guidelines for when and how affected assets might be included in reference rates.

10. MISCELLANEOUS

10.1 Relevant Regulations

This Benchmark Statement is published per Article 27 of the BMR. The Kaiko Single Asset Reference Rates Family adheres to the requirements of the BMR and any delegated acts and regulatory technical standards.

10.2 ESG Factors

Following Delegated Regulation (EU) 2020/1816, we note that the Kaiko Single Asset Reference Rates Family does not pursue the objectives of the Paris Climate Agreement. The reference rates select and use input data based on transaction activity and liquidity metrics without specific consideration of ESG factors.

Digital assets present unique ESG considerations, particularly regarding environmental impact due to energy consumption in proof-of-work consensus mechanisms. Kaiko Indices acknowledges these factors but does not currently incorporate ESG criteria into the standard reference rate methodology.

10.3 Document Ownership and Review

Responsible for implementing this Statement: Anne-Claire, Maurice

Responsible for implementation control: Anne-Sophie Cissey

Responsible for Benchmark Statement review: Oversight committee

10.4 Contact Information

For questions regarding this Benchmark Statement or the Kaiko Single Asset Reference Rates Family, please contact:

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10.5 Changelog

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APPENDIX I: Reference Rates included in the Family

<https://www.kaiko.com/indices/rates>