

# **Tassat Fixing Price Indices (XBTFixing, ETHFixing): Annual Statement of Compliance with the IOSCO Principles for Financial Benchmarks**

Tassat

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This document is Tassat’s statement of compliance with the IOSCO Principles for Financial Benchmarks (“The Principles”). It gives the overall level of compliance, the self-assessment framework used in determining this level of compliance, and describes how each of the 19 principles is adhered to, including the specification of the use of proportionality where appropriate.

This statement will be revised and reissued annually, and will be made publicly available on the Tassat website.

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# 1. Introduction

This document is organized into two primary sections.

The first section (Self-Assessment) provides an overall self-assessment of compliance with the principles and the level of compliance with each the 19 individual principles.

The second section (Compliance with the Principles) gives a detailed description of how Tassat complies with each principle.

Both sections are organized according to the Guidance on Statements of Compliance with the IOSCO Principles for Financial Benchmarks, which is Annex A of the December, 2016 IOSCO Report on Guidance on the IOSCO Principles for Financial Benchmarks.

# 2. Self-Assessment

The Tassat Fixing Price family of indices (XBTFixing and ETHFixing) is fully compliant with the 2013 IOSCO Principles for Financial Benchmarks. This overall assessment is based on the fact that each index in the family and the administration and governance framework for the indices are compliant with each applicable principle.

The level of compliance with each of the principles is as follows:

## **Governance**

- |  |                 |
|--|-----------------|
| 1. Overall Responsibility of the Administrator | Fully Compliant |
| 2. Oversight of Third Parties                  | Not Applicable  |
| 3. Conflicts of Interest for Administrators    | Fully Compliant |
| 4. Control Framework for Administrators        | Fully Compliant |
| 5. Internal Oversight                          | Fully Compliant |

## Benchmark Design

6. Benchmark Design	Fully Compliant
7. Data Sufficiency	Fully Compliant
8. Hierarchy of Data Inputs	Fully Compliant
9. Transparency of Benchmark Determinations	Fully Compliant
10. Periodic Review	Fully Compliant

## Quality of the Methodology

11. Content of the Methodology	Fully Compliant
12. Changes to the Methodology	Fully Compliant
13. Transition	Fully Compliant
14. Submitter Code of Conduct	Not Applicable <sup>1</sup>
15. Internal Controls over Data Collection	Fully Compliant

## Accountability

16. Complaints Procedures	Fully Compliant
17. Audits	Fully Compliant
18. Audit Trail	Fully Compliant
19. Cooperation with Regulatory Authorities	Fully Compliant

## 3. Compliance with the Principles

This section provides details about Tassat’s compliance with each principle.

### 3.1 Overall Responsibility of the Administrator

*The Administrator should retain primary responsibility for all aspects of the Benchmark determination process. For example, this includes:*

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<sup>1</sup> Although Tassat does not make use of “submissions” as defined by the Principles, it does have a code of conduct that each data contributor is expected to follow. More detail may be found in section 3.14

- a) *Development: The definition of the Benchmark and Benchmark Methodology;*
- b) *Determination and Dissemination: Accurate and timely compilation and publication and distribution of the Benchmark;*
- c) *Operation: Ensuring appropriate transparency over significant decisions affecting the compilation of the Benchmark and any related determination process, including contingency measures in the event of absence of or insufficient inputs, market stress or disruption, failure of critical infrastructure, or other relevant factors; and*
- d) *Governance: Establishing credible and transparent governance, oversight and accountability procedures for the Benchmark determination process, including an identifiable oversight function accountable for the development, issuance and operation of the Benchmark.*

Tassat is responsible for all aspects of index determination including:

- Development of the indices and the methodologies used
- Sourcing of data, calculation of the indices, and publication to various stakeholders and to the Tassat website.
- Operational aspects other than index calculation including both short term and long term fall back procedures.

Governance is provided through an Oversight Committee. Responsibilities of the committee include:

- Periodic review of the methodologies
- Review and approval of any changes to the methodologies proposed by the index administrator
- Review and approval of changes to pricing data sources.

## 3.2 Oversight of Third Parties

*Where activities relating to the Benchmark determination process are undertaken by third parties - for example collection of inputs, publication or where a third party acts as Calculation Agent - the Administrator should maintain appropriate oversight of such third parties. The Administrator (and its oversight function) should consider adopting policies and procedures that:*

- a) *Clearly define and substantiate through appropriate written arrangements the roles and obligations of third parties who participate in the Benchmark determination process, as well as the standards the Administrator expects these third parties to comply with;*

- b) Monitor third parties' compliance with the standards set out by the Administrator;*
- c) Make Available to Stakeholders and any relevant Regulatory Authority the identity and roles of third parties who participate in the Benchmark determination process; and*
- d) Take reasonable steps, including contingency plans, to avoid undue operational risk related to the participation of third parties in the Benchmark determination process.*

*This Principle does not apply in relation to a third party from whom an Administrator sources data if that third party is a Regulated Market or Exchange.*

Tassat does not outsource any part of the index calculation process. Transactional data (price / size pairs of all executed trades) is sourced through API directly from each exchange and market maker bid/offer data is received as live executable prices). Cleansing of data and calculation of index levels is done completely internally. Therefore, this principle is not applicable to the Tassat Fixing Price family of indices.

### 3.3 Conflicts of Interest for Administrators

*To protect the integrity and independence of Benchmark determinations, Administrators should document, implement and enforce policies and procedures for the identification, disclosure, management, mitigation or avoidance of conflicts of interest. Administrators should review and update their policies and procedures as appropriate.*

*Administrators should disclose any material conflicts of interest to their users and any relevant Regulatory Authority, if any.*

*The framework should be appropriately tailored to the level of existing or potential conflicts of interest identified and the risks that the Benchmark poses and should seek to ensure:*

- a) Existing or potential conflicts of interest do not inappropriately influence Benchmark determinations;*
- b) Personal interests and connections or business connections do not compromise the Administrator's performance of its functions;*
- c) Segregation of reporting lines within the Administrator, where appropriate, to clearly define responsibilities and prevent unnecessary or undisclosed conflicts of interest or the perception of such conflicts;*
- d) Adequate supervision and sign-off by authorised or qualified employees prior to releasing Benchmark determinations;*
- e) The confidentiality of data, information and other inputs submitted to, received by or produced by the Administrator, subject to the disclosure obligations of the Administrator;*

- f) *Effective procedures to control the exchange of information between staff engaged in activities involving a risk of conflicts of interest or between staff and third parties, where that information may reasonably affect any Benchmark determinations; and*
- g) *Adequate remuneration policies that ensure all staff who participate in the Benchmark determination are not directly or indirectly rewarded or incentivised by the levels of the Benchmark.*

*An Administrator's conflict of interest framework should seek to mitigate existing or potential conflicts created by its ownership structure or control, or due to other interests the Administrator's staff or wider group may have in relation to Benchmark determinations. To this end, the framework should:*

- a) *Include measures to avoid, mitigate or disclose conflicts of interest that may exist between its Benchmark determination business (including all staff who perform or otherwise participate in Benchmark production responsibilities), and any other business of the Administrator or any of its affiliates; and*
- b) *Provide that an Administrator discloses conflicts of interest arising from the ownership structure or the control of the Administrator to its Stakeholders and any relevant Regulatory Authority in a timely manner.*

Tassat has in place a comprehensive conflict of interest policy which is designed to identify any potential conflicts of interest and to structurally and procedurally prevent such conflicts from influencing index determination. Full details of the policy can be found on in the Tassat Conflict of Interest Policy document on the Tassat website ([www.tassat.com](http://www.tassat.com)).

### 3.4 Control Framework for Administrators

*An Administrator should implement an appropriate control framework for the process of determining and distributing the Benchmark. The control framework should be appropriately tailored to the materiality of the potential or existing conflicts of interest identified, the extent of the use of discretion in the Benchmark setting process and to the nature of Benchmark inputs and outputs. The control framework should be documented and available to relevant Regulatory Authorities, if any. A summary of its main features should be Published or Made Available to Stakeholders.*

*This control framework should be reviewed periodically and updated as appropriate. The framework should address the following areas:*

- a) *Conflicts of interest in line with Principle 3 on conflicts of interests;*
- b) *Integrity and quality of Benchmark determination:*
  - i. *Arrangements to ensure that the quality and integrity of Benchmarks is maintained, in line with principles 6 to 15 on the quality of the Benchmark and Methodology;*
  - ii. *Arrangements to promote the integrity of Benchmark inputs, including adequate due diligence on input sources;*
  - iii. *Arrangements to ensure accountability and complaints mechanisms are effective, in line with principles 16 to 19; and*
  - iv. *Providing robust infrastructure, policies and procedures for the management of risk, including operational risk.*
- c) *Whistleblowing mechanism:*  
*Administrators should establish an effective whistleblowing mechanism to facilitate early awareness of any potential misconduct or irregularities that may arise. This mechanism should allow for external reporting of such cases where appropriate.*
- d) *Expertise:*
  - i. *Ensuring Benchmark determinations are made by personnel who possess the relevant levels of expertise, with a process for periodic review of their competence; and*
  - ii. *Staff training, including ethics and conflicts of interest training, and continuity and succession planning for personnel.*

**Where a Benchmark is based on Submissions:** *Administrators should promote the integrity of inputs by:*

- a) *Ensuring as far as possible that the Submitters comprise an appropriately representative group of participants taking into consideration the underlying Interest measured by the Benchmark;*
- b) *Employing a system of appropriate measures so that, to the extent possible, Submitters comply with the Submission guidelines, as defined in the Submitter Code of Conduct and the Administrators' applicable quality and integrity standards for Submission;*
- c) *Specifying how frequently Submissions should be made and specifying that inputs or Submissions should be made for every Benchmark determination; and*
- d) *Establishing and employing measures to effectively monitor and scrutinise inputs or Submissions. This should include pre-compilation or pre-publication monitoring to identify and avoid errors in inputs or Submissions, as well as ex-post analysis of trends and outliers.*

The index determination control framework at Tassat is designed to ensure continuity in the determination of all benchmarks based on non-subjective transactional and executable

bid/offer data from a group of sources which has been fully vetted, while preventing actual or perceived conflicts of interest at any level of the organization from influencing index levels.

Specific conflict of interest controls can be found in the Tassat Conflict of Interest Policy. Tassat ensures integrity and quality of the actual determinations through:

- Careful vetting and ongoing monitoring of all exchanges and market makers used as data sources. Any source may be temporarily or permanently removed from consideration for quantitative reasons such as deteriorating liquidity or market share or for qualitative judgment due to actual operationally or ethically sub-standard incidents or the perception that the particular source does not have the processes in place to adequately safeguard against such incidents.
- A comprehensive and robust set of data sourcing and fallback procedures and policies which guarantee smooth continuous operation of the indices through:
  - Automated adjustment of the calculation methodology in response to disruptions in the incoming flow of prices from any source with automated re-inclusion when the disruption is corrected. Discontinuity in the indices due to short term disruptions is prevented by phasing out the history of prices from the source and the blocking of “cached” prices from entering the calculation when the disruption ends.
  - If such a disruption is found to be due to a more serious problem at the source, the administrator may immediately block the source from re-entering the process. The administrator would then notify the oversight committee of its recommendation for permanent exclusion of the source and for its choice of a replacement from a pool of pre-qualified sources.
- Complaints are handled according the Tassat Complaints Policy, which may be found on the Tassat website.

Tassat’s whistleblowing framework ensures that any employee may disclose in strict confidence any concerns over any employee’s potentially unethical or abusive conduct without fear of reprisal or retaliation in any form. The whistleblowing policy may be found on the Tassat website.

None of Tassat’s indices are based on submissions, so the control framework does not extend to such measures as submitter codes of conduct. Tassat does, however, carefully analyze the incoming transactional and executable data streams to automatically detect outlying prices and remove them from the calculation.

### 3.5 Internal Oversight

*Administrators should establish an oversight function to review and provide challenge on all aspects of the Benchmark determination process. This should include consideration of the features and intended, expected or known usage of the Benchmark and the materiality of existing or potential conflicts of interest identified.*

*The oversight function should be carried out either by a separate committee, or other appropriate governance arrangements. The oversight function and its composition should be appropriate to provide effective scrutiny of the Administrator. Such oversight function could consider groups of Benchmarks by type or asset class, provided that it otherwise complies with this Principle.*

*An Administrator should develop and maintain robust procedures regarding its oversight function, which should be documented and available to relevant Regulatory Authorities, if any. The main features of the procedures should be Made Available to Stakeholders. These procedures should include:*

- a) The terms of reference of the oversight function;*
- b) Criteria to select members of the oversight function;*
- c) The summary details of membership of any committee or arrangement charged with the oversight function, along with any declarations of conflicts of interest and processes for election, nomination or removal and replacement of committee members.*

*The responsibilities of the oversight function include:*

- a) Oversight of the Benchmark design:
  - i. Periodic review of the definition of the Benchmark and its Methodology;*
  - ii. Taking measures to remain informed about issues and risks to the Benchmark, as well as commissioning external reviews of the Benchmark (as appropriate);*
  - iii. Overseeing any changes to the Benchmark Methodology, including assessing whether the Methodology continues to appropriately measure the underlying Interest, reviewing proposed and implemented changes to the Methodology, and authorising or requesting the Administrator to undertake a consultation with Stakeholders where known or its Subscribers on such changes as per Principle 12; and*
  - iv. Reviewing and approving procedures for termination of the Benchmark, including guidelines that set out how the Administrator should consult with Stakeholders about such cessation.**
- b) Oversight of the integrity of Benchmark determination and control framework:*

- i. *Overseeing the management and operation of the Benchmark, including activities related to Benchmark determination undertaken by a third party;*
- ii. *Considering the results of internal and external audits, and following up on the implementation of remedial actions highlighted in the results of these audits; and*
- iii. *Overseeing any exercise of Expert Judgment by the Administrator and ensuring Published Methodologies have been followed.*

***Where conflicts of interests may arise in the Administrator due to its ownership structures or controlling interests, or due to other activities conducted by any entity owning or controlling the Administrator or by the Administrator or any of its affiliates:*** *the Administrator should establish an independent oversight function which includes a balanced representation of a range of Stakeholders where known, Subscribers and Submitters, which is chosen to counterbalance the relevant conflict of interest.*

***Where a Benchmark is based on Submissions:*** *the oversight function should provide suitable oversight and challenge of the Submissions by:*

- a) *Overseeing and challenging the scrutiny and monitoring of inputs or Submissions by the Administrator. This could include regular discussions of inputs or Submission patterns, defining parameters against which inputs or Submissions can be analysed, or querying the role of the Administrator in challenging or sampling unusual inputs or Submissions;*
- b) *Overseeing the Code of Conduct for Submitters;*
- c) *Establishing effective arrangements to address breaches of the Code of Conduct for Submitters; and*
- d) *Establishing measures to detect potential anomalous or suspicious Submissions and in case of suspicious activities, to report them, as well as any misconduct by Submitters of which it becomes aware to the relevant Regulatory Authorities, if any.*

The oversight function for Tassat Indices is carried out by the Oversight Committee. Details on the selection criteria and the full chartered scope of its activities are in the Tassat Oversight Committee Charter document which can be found on the Tassat website.

The primary functional responsibilities of the oversight committee include, but are not limited to:

- To directly oversee (meaning to approve or disapprove) any proposed changes to the mathematical algorithm used for calculation of the indices
- To directly oversee any proposed changes to the set of sources from which transactional and / or executable data is drawn for use in the calculation. This includes sources which

have been automatically or manually removed from the calculation process for quantitative or qualitative reasons.

- To periodically review:
  - The calculation methodology
  - The criteria for qualification of exchanges or market makers as pricing sources
  - The fall-back and continuity assurance procedures and policies
  - Both the conflict of interest policy and existing or potential conflicts of interest
  - To review its own membership for conflicts of interest which may not have been present at the constitution of the committee or at the selection times of individual members, but which have become present prior to the current review.
  - To review any operational or regulatory risks to the indices.

A majority of the members of the Tassat Index Oversight Committee are independent of Tassat and its affiliated companies.

### 3.6 Benchmark Design

*The design of the Benchmark should seek to achieve, and result in an accurate and reliable representation of the economic realities of the Interest it seeks to measure, and eliminate factors that might result in a distortion of the price, rate, index or value of the Benchmark. Benchmark design should take into account the following generic non-exclusive features, and other factors should be considered, as appropriate to the particular Interest:*

- a) Adequacy of the sample used to represent the Interest;*
- b) Size and liquidity of the relevant market (for example whether there is sufficient trading to provide observable, transparent pricing);*
- c) Relative size of the underlying market in relation to the volume of trading in the market that references the Benchmark;*
- d) The distribution of trading among Market Participants (market concentration);*
- e) Market dynamics (e.g., to ensure that the Benchmark reflects changes to the assets underpinning a Benchmark).*

The data and methodology used for calculation of the Tassat Fixing Price family of indices were specifically chosen to be consistent with, and sufficient to, the characteristics of the underlying cryptocurrency markets. These market have the following characteristics:

- Fragmentation. There are many different exchanges and market makers on which the underlying digital assets trade. This fragmentation can frequently lead to observable arbitrage across venues.

- Extremely high frequency of trading.
- Very small average trade size on exchanges, large block trading in OTC markets
- 24 / 7 trading around the world
- Large variation in the availability and cost of position funding.

The index methodology has been designed specifically to be appropriate for these characteristics in the following ways:

- Ensuring an overall view of market sentiment by using transaction and executable bid/offer data from a broadly representative sampling of the largest and most liquid exchanges and the largest OTC market making firms.
- Using a significantly longer window from which prices are drawn averages out the short term spikes or dips that can occur due to sometimes thin volume.
- Fall-back procedures that are extremely detailed and designed to cover all possible contingencies.
- The use of only transactional or actual executable bid/offer data to guard against index levels being influenced by abusive order activity.
- A robust regime of anti-manipulation features in the design and operation of the indices.

### 3.7 Data Sufficiency

*The data used to construct a Benchmark determination should be sufficient to accurately and reliably represent the Interest measured by the Benchmark and should:*

- a) Be based on prices, rates, indices or values that have been formed by the competitive forces of supply and demand in order to provide confidence that the price discovery system is reliable; and*
- b) Be anchored by observable transactions entered into at arm's length between buyers and sellers in the market for the Interest the Benchmark measures in order for it to function as a credible indicator of prices, rates, indices or values.*

*This Principle requires that a Benchmark be based upon (i.e., anchored in) an active market having observable Bona Fide, Arms-Length Transactions. This does not mean that every individual Benchmark determination must be constructed solely of transaction data. Provided that an active market exists, conditions in the market on any given day might require the Administrator to rely on different forms of data tied to observable market data as an adjunct or supplement to transactions. Depending upon the Administrator's Methodology, this could result*

*in an individual Benchmark determination being based predominantly, or exclusively, on bids and offers or extrapolations from prior transactions. This is further clarified in Principle 8.21. Provided that subparagraphs (a) and (b) above are met, Principle 7 does not preclude Benchmark Administrators from using executable bids or offers as a means to construct Benchmarks where anchored in an observable market consisting of Bona Fide, Arms-Length transactions.*

*This Principle also recognizes that various indices may be designed to measure or reflect the performance of a rule-based investment strategy, the volatility or behaviour of an index or market or other aspects of an active market. Principle 7 does not preclude the use of non-transactional data for such indices that are not designed to represent transactions and where the nature of the index is such that non-transactional data is used to reflect what the index is designed to measure. For example, certain volatility indices, which are designed to measure the expected volatility of an index of securities transactions, rely on non-transactional data, but the data is derived from and thus “anchored” in an actual functioning securities or options market.*

Tassat uses only a) actual transactional data from a number of the largest and most stable institutional cryptocurrency exchanges, or b) executable market maker bid/offer data which is anchored in their actual market making activity, so both Data Sufficiency requirements are met in full.

### 3.8 Hierarchy of Data Inputs

*An Administrator should establish and Publish or Make Available clear guidelines regarding the hierarchy of data inputs and exercise of Expert Judgment used for the determination of Benchmarks. In general, the hierarchy of data inputs should include:*

- a) Where a Benchmark is dependent upon Submissions, the Submitters’ own concluded arms-length transactions in the underlying interest or related markets;*
- b) Reported or observed concluded Arm’s-length Transactions in the underlying interest;*
- c) Reported or observed concluded Arm’s-length Transactions in related markets;*
- d) Firm (executable) bids and offers; and*
- e) Other market information or Expert Judgments.*

*Provided that the Data Sufficiency Principle is met (i.e., an active market exists), this Principle is not intended to restrict an Administrator’s flexibility to use inputs consistent with the Administrator’s approach to ensuring the quality, integrity, continuity and reliability of its Benchmark determinations, as set out in the Administrator’s Methodology. The Administrator*

*should retain flexibility to use the inputs it believes are appropriate under its Methodology to ensure the quality and integrity of its Benchmark. For example, certain Administrators may decide to rely upon Expert Judgment in an active albeit low liquidity market, when transactions may not be consistently available each day. IOSCO also recognizes that there might be circumstances (e.g., a low liquidity market) when a confirmed bid or offer might carry more meaning than an outlier transaction. Under these circumstances, non-transactional data such as bids and offers and extrapolations from prior transactions might predominate in a given Benchmark determination.*

All data inputs to the Tassat fixing price index determinations are actual transactions from several of the largest institutional cryptocurrency exchanges, or actual executable bid/offer data from market makers..

Expert judgment is never used in index determination; the only area where administrator judgment is exercised is in the selection of replacement sources for a source which has been dropped. Even in that case, the administrator can only exercise judgment if multiple replacement sources of equal qualification are available.

### 3.9 Transparency of Benchmark Determinations

*The Administrator should describe and publish with each Benchmark determination, to the extent reasonable without delaying an Administrator publication deadline:*

- a) A concise explanation, sufficient to facilitate a Stakeholder's or Market Authority's ability to understand how the determination was developed, including, at a minimum, the size and liquidity of the market being assessed (meaning the number and volume of transactions submitted), the range and average volume and range and average of price, and indicative percentages of each type of market data that have been considered in a Benchmark determination; terms referring to the pricing Methodology should be included (i.e., transaction-based, spread-based or interpolated/extrapolated);*
- b) A concise explanation of the extent to which and the basis upon which Expert Judgment if any, was used in establishing a Benchmark determination.*

All aspects of the methodology are clearly described in great detail in the separate methodology document available on the Tassat website. This includes the very limited use of expert judgment in selection of replacement data sources.

### 3.10 Periodic Review

*The Administrator should periodically review the conditions in the underlying Interest that the Benchmark measures to determine whether the Interest has undergone structural changes that might require changes to the design of the Methodology. The Administrator also should periodically review whether the Interest has diminished or is non-functioning such that it can no longer function as the basis for a credible Benchmark.*

*The Administrator should Publish or Make Available a summary of such reviews where material revisions have been made to a Benchmark, including the rationale for the revisions.*

The methodology and data sourcing are regularly reviewed both at the administrator and at the oversight committee levels. Any material changes in methodology or changes to data sources are immediately disclosed to stakeholders and to the public via the Tassat website.

### 3.11 Content of the Methodology

*The Administrator should document and Publish or Make Available the Methodology used to make Benchmark determinations. The Administrator should provide the rationale for adopting a particular Methodology. The Published Methodology should provide sufficient detail to allow Stakeholders to understand how the Benchmark is derived and to assess its representativeness, its relevance to particular Stakeholders, and its appropriateness as a reference for financial instruments.*

*At a minimum, the Methodology should contain:*

- a) Definitions of key terms;*
- b) All criteria and procedures used to develop the Benchmark, including input selection, the mix of inputs used to derive the Benchmark, the guidelines that control the exercise of Expert Judgment by the Administrator, priority given to certain data types, minimum data needed to determine a Benchmark, and any models or extrapolation methods;*
- c) Procedures and practices designed to promote consistency in the exercise of Expert Judgment between Benchmark determinations;*
- d) The procedures which govern Benchmark determination in periods of market stress or disruption, or periods where data sources may be absent (e.g., theoretical estimation models);*
- e) The procedures for dealing with error reports, including when a revision of a Benchmark would be applicable;*

- f) Information regarding the frequency for internal reviews and approvals of the Methodology. Where applicable, the Published Methodologies should also include information regarding the procedures and frequency for external review of the Methodology;*
- g) The circumstances and procedures under which the Administrator will consult with Stakeholders, as appropriate; and*
- h) The identification of potential limitations of a Benchmark, including its operation in illiquid or fragmented markets and the possible concentration of inputs.*

***Where a Benchmark is based on Submissions, the additional Principle also applies:***

*The Administrator should clearly establish criteria for including and excluding Submitters. The criteria should consider any issues arising from the location of the Submitter, if in a different jurisdiction to the Administrator. These criteria should be available to any relevant Regulatory Authorities, if any, and Published or Made Available to Stakeholders. Any provisions related to changes in composition, including notice periods should be made clear.*

The Tassat Fixing Price methodology document clearly details data sourcing, eligibility criteria, cleaning of bad data points, and calculation methodology. It also gives complete detail on how the administrator deals with both short term and long term interruptions to data flow, when and how data sources should potentially be removed, the procedure for selecting replacement data sources and the allowable use of expert judgment in the selection, and provides a complete fallback plan covering all contingencies in terms of required market data.

Further, it specifies when and how the administrator should consult with or defer to the oversight committee, and when they should confer with stakeholders.

### 3.12 Changes to the Methodology

*An Administrator should publish or Make Available the rationale of any proposed material change in its Methodology, and procedures for making such changes. These procedures should clearly define what constitutes a material change, and the method and timing for consulting or notifying Subscribers (and other Stakeholders where appropriate, taking into account the breadth and depth of the Benchmark's use) of changes. 24*

*Those procedures should be consistent with the overriding objective that an Administrator must ensure the continued integrity of its Benchmark determinations. When changes are proposed, the Administrator should specify exactly what these changes entail and when they are intended to apply.*

*The Administrator should specify how changes to the Methodology will be scrutinised, by the oversight function.*

*The Administrator should develop Stakeholder consultation procedures in relation to changes to the Methodology that are deemed material by the oversight function, and that are appropriate and proportionate to the breadth and depth of the Benchmark's use and the nature of the Stakeholders. Procedures should:*

- a) Provide advance notice and a clear timeframe that gives Stakeholders sufficient opportunity to analyse and comment on the impact of such proposed material changes, having regard to the Administrator's assessment of the overall circumstances; and*
- b) Provide for Stakeholders' summary comments, and the Administrator's summary response to those comments, to be made accessible to all Stakeholders after any given consultation period, except where the commenter has requested confidentiality.*

Clear procedures and policies for changes in the index methodology are laid out in the methodology document. Potential changes are of two types:

- Changes to the data sources used
- Changes to the actual mathematical algorithm for calculation of the indices

Changes to the data sources are required when one of the sources being used in the calculation is dropped for either quantitative or qualitative reasons (more detail on these reasons is in the methodology document). If a source is dropped, the administrator immediately chooses and activates a replacement from the highest qualification level available, submits this to the oversight committee for ratification, and informs stakeholders and the public.

In the case of a proposed material change to the mathematical algorithm, the administrator must submit this change along with its rationale for the change to the oversight committee. The committee will solicit opinions from stakeholders and then render a final approval / disapproval judgment. If the change is approved, the administrator will implement the change and inform stakeholders and the public.

Records of interaction between the Oversight Committee and stakeholders are retained for a minimum of seven years.

### 3.13 Transition

*Administrators should have clear written policies and procedures, to address the need for possible cessation of a Benchmark, due to market structure change, product definition change, or any other condition which makes the Benchmark no longer representative of its intended Interest. These policies and procedures should be proportionate to the estimated breadth and depth of contracts and financial instruments that reference a Benchmark and the economic and financial stability impact that might result from the cessation of the Benchmark. The Administrator should take into account the views of Stakeholders and any relevant Regulatory and National Authorities in determining what policies and procedures are appropriate for a particular Benchmark.*

*These written policies and procedures should be Published or Made Available to all Stakeholders.*

*Administrators should encourage Subscribers and other Stakeholders who have financial instruments that reference a Benchmark to take steps to make sure that:*

- a) Contracts or other financial instruments that reference a Benchmark, have robust fall-back provisions in the event of material changes to, or cessation of, the referenced Benchmark; and*
- b) Stakeholders are aware of the possibility that various factors, including external factors beyond the control of the Administrator, might necessitate material changes to a Benchmark.*

*Administrators' written policies and procedures to address the possibility of Benchmark cessation could include the following factors, if determined to be reasonable and appropriate by the Administrator:*

- a) Criteria to guide the selection of a credible, alternative Benchmark such as, but not limited to, criteria that seek to match to the extent practicable the existing Benchmark's characteristics (e.g., credit quality, maturities and liquidity of the alternative market), differentials between Benchmarks, the extent to which an alternative Benchmark meets the asset/liability needs of Stakeholders, whether the revised Benchmark is investable, the availability of transparent transaction data, the impact on Stakeholders and impact of existing legislation;*
- b) The practicality of maintaining parallel Benchmarks (e.g., where feasible, maintain the existing Benchmark for a defined period of time to permit existing contracts and financial instruments to mature and publish a new Benchmark) in order to accommodate an orderly transition to a new Benchmark;*
- c) The procedures that the Administrator would follow in the event that a suitable alternative cannot be identified;*
- d) In the case of a Benchmark or a tenor of a Benchmark that will be discontinued completely, the policy defining the period of time in which the Benchmark will continue*

*to be produced in order to permit existing contracts to migrate to an alternative Benchmark if necessary; and*

- e) *The process by which the Administrator will engage Stakeholders and relevant Market and National Authorities, as appropriate, in the process for selecting and moving towards an alternative Benchmark, including the timeframe for any such action commensurate with the tenors of the financial instruments referencing the Benchmarks and the adequacy of notice that will be provided to Stakeholders*

Tassat has policies and procedures in place to ensure that transition due to either changes in the methodology or to cessation of an index is as smooth as possible for stakeholders (particularly any derivative products which use Tassat Fixing Prices as reference prices).

Changes to the methodology are handled as described in the response to Principle 12 above and in the Fixing Price Methodology document.

While exceedingly rare, it is possible that at some point, Tassat may need to cease calculation and publication of one or more fixing price indices. This can be due to several factors beyond the administrator's control such as cessation in trading or massive reduction in liquidity for the underlying cryptocurrencies, political necessity, regulatory changes, etc.

In a case where the administrator believes it necessary to discontinue an index, the administrator will prepare a report detailing the reasons for such a cessation. This report will immediately be forwarded to the oversight committee, and the oversight committee will solicit feedback from stakeholders, particularly those exchanges and OTC trading venues / markets whose derivative products use the index being discontinued as a reference price.

If, after stakeholder consultation, the oversight committee agrees with the need for index cessation, the administrator will notify all stakeholders and the general public with at least 30 days' notice of the upcoming cessation and make available documentation of the decision process.

The administrator will work with major stakeholders to help them find alternatives to the index being discontinued.

Full details can be found in the Tassat Index Cessation Policy.

### 3.14 Submitter Code of Conduct

**Where a Benchmark is based on Submissions, the following additional Principle also applies:**  
*The Administrator should develop guidelines for Submitters (“Submitter Code of Conduct”), which should be available to any relevant Regulatory Authorities, if any and Published or Made Available to Stakeholders.*

*The Administrator should only use inputs or Submissions from entities which adhere to the Submitter Code of Conduct and the Administrator should appropriately monitor and record adherence from Submitters. The Administrator should require Submitters to confirm adherence to the Submitter Code of Conduct annually and whenever a change to the Submitter Code of Conduct has occurred.*

*The Administrator’s oversight function should be responsible for the continuing review and oversight of the Submitter Code of Conduct.*

*The Submitter Code of Conduct should address:*

- a) *The selection of inputs;*
- b) *Who may submit data and information to the Administrator;*
- c) *Quality control procedures to verify the identity of a Submitter and any employee(s) of a Submitter who report(s) data or information and the authorization of such person(s) to report market data on behalf of a Submitter;*
- d) *Criteria applied to employees of a Submitter who are permitted to submit data or information to an Administrator on behalf of a Submitter;*
- e) *Policies to discourage the interim withdrawal of Submitters from surveys or Panels;*
- f) *Policies to encourage Submitters to submit all relevant data; and*
- g) *The Submitters’ internal systems and controls, which should include:*
  - i. *Procedures for submitting inputs, including Methodologies to determine the type of eligible inputs, in line with the Administrator’s Methodologies;*
  - ii. *Procedures to detect and evaluate suspicious inputs or transactions, including inter-group transactions, and to ensure the Bona Fide nature of such inputs, where appropriate;*
  - iii. *Policies guiding and detailing the use of Expert Judgment, including documentation requirements;*
  - iv. *Record keeping policies;*
  - v. *Pre-Submission validation of inputs, and procedures for multiple reviews by senior staff to check inputs;*
  - vi. *Training, including training with respect to any relevant regulation (covering Benchmark regulation or any market abuse regime);*
  - vii. *Suspicious Submission reporting;*
  - viii. *Roles and responsibilities of key personnel and accountability lines;*
  - ix. *Internal sign off procedures by management for submitting inputs;*
  - x. *Whistle blowing policies (in line with Principle 4); and*

- xi. *Conflicts of interest procedures and policies, including prohibitions on the Submission of data from Front Office Functions unless the Administrator is satisfied that there are adequate internal oversight and verification procedures for Front Office Function Submissions of data to an Administrator (including safeguards and supervision to address possible conflicts of interests as per paragraphs (v) and (ix) above), the physical separation of employees and reporting lines where appropriate, the consideration of how to identify, disclose, manage, mitigate and avoid existing or potential incentives to manipulate or otherwise influence data inputs (whether or not in order to influence the Benchmark levels), including, without limitation, through appropriate remuneration policies and by effectively addressing conflicts of interest which may exist between the Submitter's Submission activities (including all staff who perform or otherwise participate in Benchmark Submission responsibilities), and any other business of the Submitter or of any of its affiliates or any of their respective clients or customers*

Tassat does not use submission data as defined in the principles; all data is transactional price / size pairs or executable bid/offer data sourced from top market makers and institutional exchanges. Therefore, no Submitter Code of Conduct is necessary.

However, Tassat has implemented a Contributor Code of Conduct that is in line with principle 14. All contributors agree to the code at the time of their onboarding to the index. The Contributor Code of Conduct is available on the Tassat website.

### 3.15 Internal Controls over Data Collection

*When an Administrator collects data from any external source the Administrator should ensure that there are appropriate internal controls over its data collection and transmission processes. These controls should address the process for selecting the source, collecting the data and protecting the integrity and confidentiality of the data. Where Administrators receive data from employees of the Front Office Function, the Administrator should seek corroborating data from other sources.*

All data is collected through direct API connection to the exchanges and market makers which are used for each index. Every data point is stored to a Tassat database server along with

administrative information such as whether the point was used in calculation or was dismissed by the outlying data checks. Data is archived for a minimum of 7 years, with off-site backup.

The entire process is automated, with no direct human intervention possible other than adding or removing exchanges from the process.

Details on the source selection process can be found in the index methodology document.

### 3.16 Complaints Procedure

*The Administrator should establish and Publish or Make Available a written complaints procedures policy, by which Stakeholders may submit complaints including concerning whether a specific Benchmark determination is representative of the underlying Interest it seeks to measure, applications of the Methodology in relation to a specific Benchmark determination(s) and other Administrator decisions in relation to a Benchmark determination.*

*The complaints procedures policy should:*

- a) Permit complaints to be submitted through a user-friendly complaints process such as an electronic Submission process;*
- b) Contain procedures for receiving and investigating a complaint made about the Administrator's Benchmark determination process on a timely and fair basis by personnel who are independent of any personnel who may be or may have been involved in the subject of the complaint, advising the complainant and other relevant parties of the outcome of its investigation within a reasonable period and retaining all records concerning complaints;*
- c) Contain a process for escalating complaints, as appropriate, to the Administrator's governance body; and*
- d) Require all documents relating to a complaint, including those submitted by the complainant as well as the Administrator's own record, to be retained for a minimum of five years, subject to applicable national legal or regulatory requirements.*

*Disputes about a Benchmarking determination, which are not formal complaints, should be resolved by the Administrator by reference to its standard appropriate procedures. If a complaint results in a change in a Benchmark determination, that should be Published or Made Available to Subscribers and Published or Made Available to Stakeholders as soon as possible as set out in the Methodology.*

Tassat has a complaints policy and a procedure in place by which stakeholders, including market participants in derivative markets which reference the Tassat indices, can submit

complaints regarding any aspect of the index determination process. Complaints may be submitted to [complaints@tassat.com](mailto:complaints@tassat.com). Exchanges which list products that reference the indices are encouraged to provide a link to this complaints email address.

The index administrator will immediately analyze the complaint and make a determination of whether the complaint is substantive or trivial (a trivial complaint would be one that expresses the complainant's wish that a different methodology is used but provides no details as to problems with the existing methodology). The administrator will inform the oversight committee of all non-trivial complaints and of the suggested response including actions to be taken, if any. The administrator will respond to the complainant as quickly as possible.

If a decision is made to alter the index determination process in any way, that decision will be subject to oversight committee approval and will be disseminated to all stakeholders.

A record of all complaints and responses will be maintained for at least seven years.

### 3.17 Audits

*The Administrator should appoint an independent internal or external auditor with appropriate experience and capability to periodically review and report on the Administrator's adherence to its stated criteria and with the Principles. The frequency of audits should be proportionate to the size and complexity of the Administrator's operations.*

*Where appropriate to the level of existing or potential conflicts of interest identified by the Administrator (except for Benchmarks that are otherwise regulated or supervised by a National Authority other than a relevant Regulatory Authority), an Administrator should appoint an independent external auditor with appropriate experience and capability to periodically review and report on the Administrator's adherence to its stated Methodology. The frequency of audits should be proportionate to the size and complexity of the Administrator's Benchmark operations and the breadth and depth of Benchmark use by Stakeholders.*

Tassat index administration activities are subject to an annual internal audit process. This audit process does the following:

- Reviews methodology and data sourcing to ensure that they remain appropriate in evolving market conditions
- Reviews all complaints and the administrator's responses to those complaints
- Reviews interaction between the administrator and the oversight committee

- Conducts a point by point audit of the IOSCO principles and of the administrator's adherence to them as set out in this Statement of Compliance

If warranted the oversight committee may, at its discretion, require the index administrator to engage an external auditor. External audit shall not be required more than once every two years.

Reports on all internal and external audits will be maintained for a minimum of seven years.

### 3.18 Audit Trail

*Written records should be retained by the Administrator for five years, subject to applicable national legal or regulatory requirements on:*

- a) All market data, Submissions and any other data and information sources relied upon for Benchmark determination;*
- b) The exercise of Expert Judgment made by the Administrator in reaching a Benchmark determination;*
- c) Other changes in or deviations from standard procedures and Methodologies, including those made during periods of market stress or disruption;*
- d) The identity of each person involved in producing a Benchmark determination; and*
- e) Any queries and responses relating to data inputs.*

*If these records are held by a Regulated Market or Exchange the Administrator may rely on these records for compliance with this Principle, subject to appropriate written record sharing agreements.*

***When a Benchmark is based on Submissions, the following additional Principle also applies:***

*Submitters should retain records for five years subject to applicable national legal or regulatory requirements on:*

- a) The procedures and Methodologies governing the Submission of inputs;*
- b) The identity of any other person who submitted or otherwise generated any of the data or information provided to the Administrator;*

- c) Names and roles of individuals responsible for Submission and Submission oversight;*
- d) Relevant communications between submitting parties;*
- e) Any interaction with the Administrator;*
- f) Any queries received regarding data or information provided to the Administrator;*
- g) Declaration of any conflicts of interests and aggregate exposures to Benchmark related instruments;*
- h) Exposures of individual traders/desks to Benchmark related instruments in order to facilitate audits and investigations; and*
- i) Findings of external/internal audits, when available, related to Benchmark Submission remedial actions and progress in implementing them.*

Tassat maintains detailed archives of all information related to index determinations, including:

- Raw underlying pricing data
- Records of data cleansing activity
- Flags indicating whether specific data points were included in index calculations
- Volume data used in determining VWAPs
- Intermediate calculation results
- Calculated index levels
- Administrator actions relating to source inclusion or exclusion
- Records of any disruptions to any data sources including duration and ultimate resolution
- All interaction between the index administrator and the data contributors.

Additionally, all interaction with the oversight committee and all complaints and the corresponding responses, as well as the results of all internal and external audits, are archived.

All archives are maintained for a minimum of seven years.

### 3.19 Cooperation with Regulatory Authorities

*Relevant documents, Audit Trails and other documents subject to these Principles shall be made readily available by the relevant parties to the relevant Regulatory Authorities in carrying out their regulatory or supervisory duties and handed over promptly upon request.*

Tassat will cooperate fully with any legitimate request by relevant regulatory agencies for records, audit trails, and other documents related to their regulatory activities in a timely manner.