

# Practice Standards

## 1. Introduction and Overview

### 1.1 Introduction

These Practice Standards set out the responsibilities of each of:

- Crypto Facilities Ltd. as the administrator (the “**Administrator**”) and the calculation agent (the “**Calculation Agent**”) of the CME CF Bitcoin Reference Rate (“**BRR**”) and the CME CF Bitcoin Real Time Index (“**BRTI**”) and, collectively referred to with BRR, as the “Bitcoin Pricing Products”);
- Chicago Mercantile Exchange Inc. as the data licensor and distributor of the Bitcoin Pricing Products (the “**Data Licensor/Distributor**”);
- The Bitcoin Pricing Products Oversight Committee (the “**Oversight Committee**”) as the committee charged with providing the oversight function over the methodology and calculation process and the integrity of the Bitcoin Pricing Products and the Administrator;
- Bitcoin exchanges that have been approved by the Oversight Committee to contribute data to the Calculation Agent (each a “**Constituent Exchange**”); and
- The “**Bitcoin Pricing Products Team**” defined as the employees of the Administrator responsible for the day-to-day operations of the Bitcoin Pricing Products.

### 1.2 Overview of Bitcoin Reference Rate

The BRR is a daily reference rate of the U.S. Dollar price of one bitcoin as of 4:00 p.m. London time. It is based on trade execution data observed at various Constituent Exchanges and provided by the Constituent Exchanges to the Calculation Agent in accordance with the policies and procedures of, and in the format prescribed by, the Calculation Agent from time to time. Calculation details are more particularly described in the BRR Methodology Guide.

### 1.3 Overview of the Bitcoin Real Time Index

The BRTI is a real time index of the U.S. Dollar price of one bitcoin. It is representative of current bids and offers of market participants to buy or sell bitcoin on major bitcoin trading venues around the world. It is geared towards timeliness and represents an unbiased estimator of the instantaneous bitcoin price. Calculation details are more particularly described in the BRTI Methodology Guide.

## 2. Administrator

The Administrator will have primary responsibility for all of the following in respect of Bitcoin Pricing Products:

- a. All aspects of the administration of the Bitcoin Pricing Products, including taking appropriate emergency actions in unusual and extreme circumstances as discussed below to protect the integrity of the methodology and calculation process, subject to the oversight of the Oversight Committee.
- b. Implementing a conflicts of interest policy and associated procedures for the disclosure and assessment of potential conflicts of interest, subject to the approval of the Oversight Committee.
- c. Establishing the control, governance and oversight framework, in coordination with its responsibilities as the Calculation Agent, as set forth in these Practice Standards, subject to approval by the Oversight Committee.
- d. Establishing these Practice Standards and reviewing them at least on an annual basis and proposing substantive amendments, as appropriate, to the Oversight Committee for approval.
- e. Establishing appropriate monitoring processes and procedures designed to identify any breaches of these Practice Standards and any attempted manipulation or manipulative behavior and reporting any such incidents to the Oversight Committee in a timely manner.
- f. Establishing appropriate processes and procedures designed to maintain the integrity and continuity of the Bitcoin Pricing Products as overseen by the Oversight Committee.
- g. Establishing appropriate processes and procedures designed to ensure the confidentiality of potentially sensitive information.

## 3. Calculation Agent

The Calculation Agent will be responsible for:

- a. Designing the Bitcoin Pricing Products.
- b. Documenting the methodology for each of the Bitcoin Pricing Products, subject to approval by the Oversight Committee.
- c. Collecting, retaining and securing the underlying data and data feeds used in connection with the Bitcoin Pricing Products calculation process.

- d. Establishing appropriate processes and procedures designed to maintain the integrity and continuity of the calculation process.

## 4. Data Licensor/Distributor

The Data Licensor/Distributor will be responsible for:

- Developing a commercial model for licensing the values of the Bitcoin Pricing Products in consultation with the Administrator.
- Distributing the values of the Bitcoin Pricing Products through the CME Market Data Platform.
- Administering the licensing of the Bitcoin Pricing Products and collecting the associated fees on behalf of the Administrator and itself.
- Maintaining the Bitcoin Pricing Products' values for distribution of historical data.
- Providing service for Bitcoin Pricing Products licensing customers.

## 5. Bitcoin Pricing Products Oversight Committee

The Oversight Committee is responsible for reviewing and providing challenge on all aspects of the methodology and calculation process and providing effective oversight of the Administrator as it relates to the Bitcoin Pricing Products. It is also responsible for assessing potential conflicts relating to the functioning and operation of the Bitcoin Pricing Products or any associated governance framework, policy or control process in accordance with the Bitcoin Pricing Products Conflicts of Interest Policy.

## 6. Constituent Exchanges

The Constituent Exchanges will make both trade data and order book data available to the Calculation Agent in accordance with the policies and procedures of, and in the format prescribed by, the Calculation Agent from time to time. The Constituent Exchanges shall each have controls and processes in place to protect against, amongst other things, market abuse (including, without limitation, attempted manipulation of the Bitcoin Pricing Products).

The Constituent Exchanges are also responsible for making the relevant data available to the Calculation Agent at the relevant times and for ensuring that the data accurately represents the prices that were available / traded on their trading venues at the relevant times.

## 7. Bitcoin Pricing Products Team

The Bitcoin Pricing Product Team is responsible for the orderly production of the Bitcoin Pricing Products. It will monitor, administrate and keep up-to-date the software and hardware infrastructure that sources data from Constituent Exchanges, calculates the BRR and BRTI and disseminates the same to the Data Licensor/Distributor.

## 8. Unusual and Extreme Circumstances

In the event where unusual and extreme circumstances occur which could jeopardize the ability of the Bitcoin Pricing Products to track the underlying value of Bitcoin, or where conflicting definitions of Bitcoin exist, the Administrator shall be responsible for recommending the necessary actions and responses to ensure the relevance and integrity of the Bitcoin Pricing Products.

Examples of unusual and extreme circumstances may include, but are not limited to:

- A security compromise at a Constituent Exchange, especially if the Constituent Exchange publishes market data that deviates from the underlying value of bitcoin;
- A hard fork of the bitcoin blockchain, where both forks continue to be actively mined and traded but may not be fungible with each other; and
- Significant circumstances where bitcoin is not fungible between Constituent Exchanges, e.g. where bitcoin withdrawn from one Constituent Exchange may not be accepted for deposit at another Constituent Exchange

Note that large movements and/or high volatility of the price of bitcoin generally do not constitute an unusual or extreme circumstance on their own, provided that the market data published by Constituent Exchanges generally track the underlying value of Bitcoin.

Prior to taking action, the Administrator must confirm that the current conditions are unusual and extreme and the taking of the proposed specific action or actions are necessary and prudent to maintain the relevance and integrity of the Bitcoin Pricing Products and receive the joint approval from the CF Member of the Oversight Committee and at least one of the CME Members of the Oversight Committee or their respective designee.

After taking one or more actions, the Administrator must notify the Oversight Committee within six hours.

The Administrator will timely publish summaries of all actions taken under this section of the Practice Standards on the Administrator's website.

## 9. Investigations of Complaints or Concerns Regarding Bitcoin Pricing Products

Stakeholders may submit any complaints or concerns regarding Bitcoin Pricing Products by emailing [indices@cryptofacilities.co.uk](mailto:indices@cryptofacilities.co.uk).

Representatives of the Bitcoin Pricing Products Team will receive notification of any complaint or concern and will investigate the allegations in accordance with the following procedures:

- Investigations shall be conducted in a timely manner taking into account the nature of the complaint and its impact to the calculation process and the integrity of the Bitcoin Pricing Products;
- No member of the investigation team may be the subject of the allegation;
- The Oversight Committee shall receive a copy of all submitted allegations and receive an update on the investigation at its next quarterly meeting or on a more expedited timeline if necessary based on the nature of the complaint; and
- The Oversight Committee shall be responsible for overseeing any remediation or enhancements to the control framework resulting from the complaint.

## 10. Contacts for Further Information

For further information on the Bitcoin Pricing Products Practice Standards, please contact:

Crypto Facilities Ltd  
79 Maygrove Road  
London NW6 2EG  
United Kingdom

Web: [www.cryptofacilities.com](http://www.cryptofacilities.com)

Phone: +44 7413 0279 27

Email: [contact@cryptofacilities.com](mailto:contact@cryptofacilities.com)



#### CME GROUP HEADQUARTERS

20 South Wacker Drive  
Chicago, Illinois 60606  
[cmegroup.com](http://cmegroup.com)

#### CME GROUP GLOBAL OFFICES

**Chicago**  
+1 312 930 1000  
**Singapore**  
+65 6593 5555  
**Houston**  
+1 713 658 9292  
**Tokyo**  
+81 3 3242 6228

**New York**  
+1 212 299 2000  
**Calgary**  
+1 403 444 6876  
**São Paulo**  
+55 11 2787 6451  
**Washington D.C.**  
+1 202 638 3838

**London**  
+44 20 3379 3700  
**Hong Kong**  
+852 2582 2200  
**Seoul**  
+82 2 6336 6722

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