



CF Cryptocurrency Index Family

Oversight Function Meeting Minutes

November 22nd, 2019

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1 Conflicts of Interest

The meeting began at 1735 London Time.

The Oversight Function confirmed that it was not aware of any conflicts of interest that it subject to in regards any of the agenda items and moved the meeting forward.

2 Standing Items

The Oversight Function thanked the Administrator for the information that had been provided since the previous oversight function meeting and confirmed that it did not have any questions relating to these items.

The Oversight Function moved the discussion forward.

3 Proposal of a dynamic Order Size Cap for CF Spot Rates

The Administrator reminded the Oversight Function of the Order Size Cap that formed part of the methodology for calculating the CF Spot Rates. The Administrator proposed amending the level of the cap from being static cap to becoming dynamic. This means that the cap would not require adjustment as the price of the base asset rises and falls to promote the integrity of the benchmarks.

The Administrator went on to summarise its work on a dynamic order size cap and the key objectives that guided these efforts. The Administrator described an order size cap it had designed that would be applied at *each and every* calculation of the relevant RTI. Analysis of the evolution of the dynamic order size cap level for the year to date and its utilisation rate was provided to the Oversight Function.

The Administrator asked the Oversight Function to consider the below key principles that underpinned the proposed dynamic order size cap that were departures from the current static cap:

- The proposed cap takes a statistical approach in its design, this means that in the majority of cases (over 80%) it would cap orders that are utilised as input data – this is much higher than the instances of the cap being utilised under the existing hard coded static parameter.
- Although it would have been applied on a greater proportion of calculations its application on the proportion of input data utilised in each time it was used would still be small c. 1.5% -2.5% of input

The Oversight Function thanked the Administrator for the detailed briefing and acknowledged that a dynamic cap would indeed promote the representativeness of the benchmarks given the volatility observed in the underlying cryptocurrency markets. The Oversight Function asked the Administrator to provide further detail regarding, and deliberated the implications of:

- The specifics of winsorized standard deviations and the mathematical properties this gave to the determination of the order size cap
- How a dynamic cap would promote benchmark Integrity
- What operational impact this change may have on the timely calculation and dissemination of CF Spot Rate values.

The Oversight Function resolved that the implementation of the dynamic order size cap will improve the representativeness and integrity of the CF Spot Rates and that this change be implemented according to the Administrators proposed timeline and the publicly available methodology be amended to reflect this at the point of implementation.

The meeting moved forward.

3 Impact of the addition of Coinbase to the CF Cryptocurrency Index Family

Coinbase was added as a constituent exchange to the CF Cryptocurrency Index Family on October 28th 2019. The Administrator presented an update of the impact of the inclusion of Coinbase as an input data source to the Indices. In summary Coinbase had added significant liquidity to the Indices that it has been included as an Input data source to, accounting for substantial amounts of the transaction volume observed for the respective Settlement Prices and further improving the representativeness of the members of the CF Cryptocurrency Index family.

The Oversight Function thanked the Administrator for the update and agreed with the Administrators assessment and moved the meeting forward.

4 Constituent Exchange Due Diligence Review 2019

The Administrator presented the review it had conducted around numerous aspects of the Constituent Exchanges to the CF Cryptocurrency Index Family. This included the due diligence the Administrator had conducted on the latest arrangements that each exchange has in place to:

- Promote market integrity
- Mitigate risk exposure for their users
- Prevent money laundering and financial crime
- Assist with the firm's detection of attempts to manipulate members of the CF Cryptocurrency Index Family

The Oversight Function reviewed the information presented and agreed with the Administrators findings.

The meeting was adjourned at 1835 London time and resumed at 1700 November 26th 2019

5 Amendments to the *Potentially Erroneous Data Parameter* for CF Spot Rates and CF Settlement Prices

The Administrator reminded the Oversight Function of the *potentially erroneous data parameter* within the methodology of the CF Spot Rates and CF Settlement Prices and how this automatically disregarded the Input data originating from a constituent exchange if:

CF Spot Rates

The order book mid deviates from the median of all the valid orderbook mids by more than the potentially erroneous data parameter.

CF Settlement Prices

The volume weighted median (VWM) of any Individual constituent exchange deviates from the median of the VWMs of all other exchanges by more than the potentially erroneous data parameter.

The purpose of the Potentially Erroneous Data Parameter is to safeguard the integrity of the firm's benchmarks in a number of extreme scenarios. The Administrator presented analysis of the maximum recorded level for the *Potentially Erroneous Data Parameter* for each member of the CF Cryptocurrency Index Family:

The Administrator proposed to amend the erroneous data parameter for each of the benchmarks from their current levels to a lower level to promote the integrity of the benchmarks and their manipulation resistance. The benchmarks benefit from further liquidity brought about by more constituent exchanges and price variance between exchanges has been shown to be well within the current *Erroneous Data Parameter* levels, even in times of heightened volatility in the early summer period of 2019, due to the increased efficiency and maturity of the underlying markets.

The Oversight Function sought further clarity on the proposed revised levels of the potentially erroneous data parameter and whether these were appropriate. The Oversight Function also asked the Administrator to give a walk-through of how the revised levels of the *potentially erroneous data parameter* would operate if triggered in practice and the scenarios in which this could occur.

The Oversight Function resolved to amend the potentially erroneous data parameter for members of the CF Cryptocurrency Index Family from their current levels to the below on an implementation schedule that would allow the Administrator to give the market sufficient notice and once implemented that the public methodology be amended to reflect this change.

Relevant Pair	CF Settlement Price	CF Spot Rate
XRP-USD	10%	10%
LTC-USD	10%	10%
BCH-USD	10%	10%
XRP-XBT	10%	10%

