TWAP Settlement Rate Methodology

CoinDesk Indices

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Contents

1 Version History

Version	Date	Details
1	14-Mar-2025	Initial version

2 Introduction

2.1 TWAP Settlement Rate Methodology Description

This methodology defines calculations used to create parameterized settlement values for Indices and Reference Rates, and designed to be used as valuation prices for investment products and settlement values for derivative contracts. Each calculation will produce a time-weighted average price (TWAP) of the underlying Index or Reference Rate during a defined Observation Period.

The TWAPs calculated in this methodology will be defined by a number of properties, including the Closing Time, underlying Index or Reference Rate, Observation Period, and Observation Interval.

2.2 TWAP Settlement Rate Properties

Property	**Description**
Closing Time	4:00 pm Hong Kong, 4:00 pm New York, 4:00 pm London
Underlying Index or Reference Rate	A subset of Indices or Reference Rates will be supported
Observation Period	15 minutes, 30 minutes, 60 minutes
Observation Interval	1 minute
Calculation	Time Weighted Average Price
Calculation days	Every day of the week

3 Definitions

API stands for Application Programming Interface.

CCIX means, with respect to a Currency Pair, the CCData Aggregate Index.

CCIXber means the CCData Blended Exchange Variant Reduced Universe Prices.

Closing Time refers to the time when the TWAP Settlement Rate is calculated.

Index is a multi-asset index, calculated by CoinDesk Indices as defined in its applicable methodology.

Observation Period refers to the time window used to calculate the TWAP Settlement Rate.

Observation Interval refers to the frequency at which the underlying Index or Reference Rate price is observed within the Observation Period.

Reference Rate is a representative price for a single digital asset as calculated by CoinDesk Indices using its applicable methodology.

4 TWAP Settlement Rate Calculation Methodology

4.1 Input Data

TWAP Settlement Rates are calculated on underlying Indices or Reference Rates as presented in TWAP Settlement Rate Annexes.

4.2 TWAP Settlement Rate Calculation

Each TWAP Settlement Rate is calculated using the formula below, referencing each rate's respective properties as presented in TWAP Settlement Rate Annexes.

$$TWAP_t = \frac{1}{N} \times \sum_{i=1}^{N} P_i \tag{1}$$

Where:

$TWAP$ denotes the value of TWAP Settlement Rate on day t

N is equal to Observation Period divided by Observation Interval

P_i is the value of the underlying Index or Reference Rate at Observation Interval i

If there is no trade during the Observation Interval i, the last available P will be assigned to this Observation Interval. This assumes the price remains constant when there are no trades..

5 Dissemination

Official TWAP Settlement Rate values are disseminated once per day via REST, Websocket APIs and scheduled email updates. The REST API endpoint can be found here: `https://developers.coindesk.com/documentation/data-api/index_cc_v1_historical_days_eod`.

Websocket streams both indicative and official TWAP Settlement Rate values. The inidicative TWAP Settlement Rate is a rolling TWAP of the latest data, publishing once per minute during the Observation Period leading up to the Closing Time. For more details, please reach out to the team. The Websocket API endpoint can be found here: `https://developers.coindesk.com/documentation/data-streamer/introduction`.

TWAP Settlement Rate Offerings

The list of TWAP Settlement Rate Offerings and their parameters can be found in the TWAP Settlement Rate Annexes).

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