CF Rolling CME Bitcoin Futures Index (Excess Return)

Methodology Guide

Table of Contents

---

1   Version History

Version	Version Date	Changes to Previous
1.0	01 Apr 2022	n/a
1.1	21 Apr 2022	Updated definition of Relevant Transactions (Section 3)
1.2	7 Mar 2022	Updated index calculation equations (Section 4.1.) Updated example (Section 4.2)
1.3	31 Mar 2022	Updated Contingency Calculation Rules (Section 5)
1.4	14 May 2022	Updated Contingency Calculation Rules (Section 5) Updated Restatement & Republishing (Section 6)
1.5	15 Nov 2022	Updated Expiry Day definition Updated Index Calculation Days (Section 4.1.3)
1.6	20 Jun 2023	Inclusion of spread trades in index calculation
1.7	13 Nov 2023	Update to logo & format
1.8	20 Nov 2023	Updated logo (AKC v2)
1.9	06 Feb 2024	Updates to the Administrator communication procedures for Delayed Calculation & Publication; Calculation Failure; Restatement & Republishing and Market Failure Events
1.10	18 Mar 2025	Updated Roll Days in example (Section 4.2) Updated Roll Days in General Parameters (Section 7.1)

2 Index Aims

Responding to the need for investors to replicate the performance of Commodities and Futures Trading Commission (CFTC) regulated Bitcoin Futures contracts traded on the CME, the Administrator has developed this index methodology to measure the returns that a passive strategy of holding Bitcoin Futures contracts would generate. The index is a means of replicating the USD returns of holding physical Bitcoins through Bitcoin-USD futures contracts that allow investors to seek USD price exposure to Bitcoin; both long and short, where price discovery is facilitated by the GLOBEX central limit order book system and transactions are centrally cleared. All this activity is conducted under the regulatory oversight of the US CFTC.

The index aims to be *representative*, *replicable* and *efficient* to facilitate the creation of derived works such as financial products by index users, including but not limited to; exchange traded funds (ETFs), investment funds such as mutual funds, derivatives contracts and other financial instruments.

Representative

Underlying Economic Reality
The CF Rolling CME Bitcoin Futures Index (Excess Return) represents the returns in USD of Bitcoin by utilising the methodology described in this document to observe the price of Bitcoin-USD futures contracts made available for trading by the CME Group. Whilst the index does not observe the transactions of physical Bitcoin for USD and vice versa as input data it does represent the *underlying economic reality* of the exchange of Bitcoin for USD. The CME futures contracts are cash settled to the CME CF Bitcoin Reference Rate (BRR), the global daily benchmark price of one Bitcoin denominated in USD, that is also provided by the Administrator. The BRR is calculated by observing the transactions involving the exchange of Bitcoin for USD and vice versa that are conducted on cryptocurrency exchanges that meet the CME CF Constituent Exchange Criteria, *Inter alia* the CME BTC-USD futures contracts are themselves representations of the underlying economic reality of the exchange of Bitcoins for USD.

To ensure that the index is representative of this underlying economic reality its methodology takes into account the inherent characteristics of futures markets that can cause their returns to deviate from the underlying physical commodity through well-understood phenomenon such as contango and backwardation. To promote the manner in which the index seeks to represent the underlying economic reality and minimise the effects of these phenomenon, the Administrator is likely to amend the methodology Sections 3 and 4 pertaining to the index portfolio composition to optimise the representation of the underlying economic reality.

Replicable

The index is intended to be used in the creation, maintenance, and management of derived works such as exchange traded funds (ETFs), investment funds such as mutual

funds, derivatives contracts and other financial instruments. As such providers of these financial product derived works will need to be able to replicate the index. In replicating an index based on futures contracts liquidity is a key consideration to minimise any potential tracking error and minimising this risk for index users. The element of this methodology most sensitive to issues of liquidity are the Roll Parameters that govern the roll mechanism, where the index replaces constituent contracts with those of a later maturity to avoid expiration. To promote the replicability of the index the Administrator is likely to amend the Roll Parameters of the methodology (including Designated Roll Days and Roll Times) where the liquidity profile of the market for the trading of the CME BTC-USD futures contracts means that replicability can be optimised.

Efficient

Providers of financial derived works will need to be able to replicate the index in as efficient a manner as possible. Cost efficiency in replicating an index is achieved by eliminating unnecessary portfolio churn and trading costs. The Administrator will likely amend the methodology and most likely in the quantum of certain Roll Parameters (including Designated Roll Days and Roll Times) to optimise the efficiency of the index.

3   Definitions

Front Contract: CME Bitcoin Futures contract which is closest to its expiry date.

Next Contract: CME Bitcoin Futures contract with expiry date after the Front Contract expiry date.

Expiry Day: The last Friday of the Front Contract's month. If this is not either a UK or a U.S. business day, the contract expiry day will take place on the immediately preceding business day which is either a UK or a U.S. business day.

Expiry Datetime: 4:00 pm London on the Expiry Day.

Index Portfolio: Portfolio of weighted constituents representing the index, consisting of Front Contract and Next Contract.

Roll Interval: The period between two consecutive Expiry Datetimes.

Roll Day: Any day on which the index changes its constituent weights.

Roll Time: Time of the day on a Roll Day at which the weights of the Index Portfolio are adjusted.

Roll Period: Each set of Roll Days within a Roll Interval.

Non-Roll Day: Any day on which the Index Portfolio does not change its constituent weights.

Non-Roll Period: Each set of Non-Roll Days within a Roll Interval.

Roll Step: Each Roll Interval can be comprised in a timely ordered series of steps over which the Index Portfolio's weights are adjusted. The Roll Step refers to the position of a step in this ordered series.

Index Calculation Day: Any day for which the index is calculated and published at least once.

Index Calculation Time: Time of the day at which the index is calculated.

Index Calculation Datetime: The combination of Index Calculation Day and the outer join of Index Calculation Time and Roll Time.

Index Publication Datetime: Each datetime when the index value is published.

Relevant Transactions: All Transactions in outright futures contracts and calendar spreads related to those futures contracts during the Roll Time.

Transaction Price: The *Transaction Price* of a CME Futures contract as defined by the CME. Additionally, Transaction Prices embedded in calendar spread transactions are extracted by matching timestamps to outright transactions (section 4.1.5)

4 Methodology

4.1 Index Calculation

The index value on day t is calculated according to the following formulas:

$$I_t = g_{Front,t} \cdot P_{Front,t} + \sum_{n=1}^{N+1} \left[g_{Next,n,t} \cdot P_{Next,n,t} \right]$$	Eq. 1

For t=0 (not a roll day):

$$g_{Front,0} = \frac{w_{Front,Initial} \cdot I_0}{P_{Front,0}}$$	Eq. 1.1
$$g_{Next,n,0} = \frac{w_{Next,n,Initial} \cdot I_0}{P_{Next,n,0}}$$	Eq. 1.2

If t is not a roll day, for t>0:

$$g_{Front,t} = g_{Front,t_-}$$	Eq. 1.3
$$g_{Next,n,t} = g_{Next,n,t_-}$$	Eq. 1.4

If t is a roll day, for t>0:

$$g_{Front,t} = \frac{w_{Front,t}}{P_{Front,t}} \cdot \left[g_{Front,t_-} \cdot P_{Front,t} + \sum_{n=1}^{N+1} \left[g_{Next,n,t_-} \cdot P_{Next,n,t} \right] \right]$$	Eq. 1.5
$$g_{Next,n,t} = \frac{w_{Next,n,t}}{P_{next,n,t}} \cdot \left[g_{Front,t_-} \cdot P_{Front,t} + \sum_{n=1}^{N+1} \left[g_{Next,n,t_-} \cdot P_{Next,n,t} \right] \right]$$	Eq. 1.6

With:

Symbol	Description	Type
t	Index Calculation Day	
t_-	Previous Index Calculation Day	
I_t	Index value at t	
n	The nth Contract to expire following the Front Contract expiry (where n=0 is the Front Contract, and n=1 is the Contract expiring 1 month after the Front Contract)	
N	Total number of Next Contract expiry months held during the month (outside roll window)	Parameter, see section 7
$g_{Front,t}$	Number of units held in the Front Contract on day t	
g_{Front,t_-}	Number of units held in the Front Contract on day t_-	
$g_{Next,n,t}$	Number of units held in the Next Contract with nth expiry after the Front Contract on day t	
g_{Next,n,t_-}	Number of units held in the Next Contract with nth expiry after the Front Contract on day t_-	
w_{Front,t_-}	Weight of the Front Contract on day t	
w_{Next,n,t_-}	Weight of the Next Contract with nth expiry after the Front Contract on day t_-	
$P_{Front,t}$	Reference Price of the Front Contract at t	

$P_{Next,n,t}$	Reference Price of the Next Contract with nth expiry after the Front Contract at t	

The initial start level of the index I_0 is set to 1,000.

The methodology used for calculating the Reference Prices $P_{Contract,t}$ is described in Section 4.1.1, the dynamics of the index weights over time are described in Section 4.1.2.

4.1.1 Reference Price Calculation

During Roll Days, the Reference Price P of a contract is established at Effective Time T by taking the average of the volume weighted average Transaction Price of all Relevant Transactions and is calculated as follows:

$$VWAP_{m,t} = \frac{1}{\sum_{i \in Partition_m} V_i} \cdot \sum_{i \in Partition_m} V_i \cdot TP_i$$	**Eq. 2.1**
$$P_{Contract,t} = \frac{1}{M} \cdot \sum_{m=1}^{M} VWAP_{m,t}$$	**Eq. 2.2**

With

Symbol	Description	Type
M	Number of first order calculation partitions in calculation window τ	Parameter, see section 7
m	The mth partition with $m \in (1,...,M)$	
τ	The length of the time period prior to the effective time during which transaction data is collected	Parameter, see section 7
$\tilde{\tau}1$	The length of the time period of partition m into which time period τ is partitioned.	
T	Roll Time / Effective Time when $P_{Contract}$ is established on calculation day t	Parameter, see section 7
$P_{Contract,t}$	The roll price established at time T on calculation day t for the respective contract	
$VWAP_{m,t}$	The volume weighted average calculated for partition m on calculation day t	
$Partition_m:$	Set of all Relevant Transactions in the relevant *Contract* within partition m within the time window $\tilde{\tau}1$	
V_i	Size of trade i (in number of contracts) in $Partition_m:$	
$TP_i:$	Transaction Price of the trade i	
Roll Days	The time period / days prior to the expiry of the Front Contract during which the monthly roll takes place	Parameter, see section 7

Outside of the Roll Days, the Reference Price P of a contract is defined as the daily settlement price of the CME Bitcoin Futures as published by CME.

4.1.2 Index Portfolio Weights

Within each Roll Interval, during the Roll Period, the Index Portfolio's weights are shifted from Front Contract to Next Contracts according to the following rule:

$$w_{Front,rst} = w_{Front,Initial} \cdot \left(1 - \frac{rs_t}{|rs|}\right)$$	**Eq. 3.1**
$$for\ n = 1$$ $$w_{Next,n,rst} = w_{Next,n,Initial} + \frac{rs_t}{|rs|} \cdot \left(w_{Front,Initial} - w_{Next,n,Initial}\right)$$	**Eq. 3.2**
$$if\ N > 0, then\ for\ n = 2, \dots, (N+1):$$ $$w_{Next,n,rst} = w_{Next,n,Initial} + \frac{rs_t}{|rs|} \cdot \left(w_{Next,n-1,Initial} - w_{Next,n,Initial}\right)$$	**Eq. 3.3**

With:

Symbol	Description	Type
rs_t	The Roll Step at t within the Roll Interval	
$|rs|$	The total number of Roll Steps within a Roll Interval	Parameter, see section 7
$w_{Front,Initial}$	The weighting of the Front Contract outside of the Roll Days	Parameter, see section 7
$w_{Next,n,Initial}$	The weighting of the Next Contract (with nth expiry after the Front Contract) outside of the Roll Days	Parameter, see section 7
$w_{Front,rst}$	The weighting of the Front Contract on Roll Step t during the Roll Days	
$w_{Next,n,rst}$	The weighting of the Next Contract (with nth expiry after the Front Contract) on Roll Step t during the Roll Days	

4.1.3 Index Calculation Days

The index is calculated each day on which the CME is open for CME Bitcoin Futures trading and a CME Bitcoin Futures Settlement Rate is published. Days where the CME closes early or has generally reduced trading hours (also known as Half Days) are treated as holidays for index calculation purposes if such day falls on a roll day. Any non-roll day where it is known ex ante that a CME settlement rate will not be published constitutes a holiday for index calculation purposes. An example CME Futures expiry schedule can be found in section 7.2 of this methodology.

4.1.4 Index Calculation Time

On days where the CME is maintaining regular trading hours for Bitcoin Futures, the index shall be calculated once a day at 3:00 pm Central Time. The Index Calculation Time shall be amended by the Index Administrator on days where the CME is maintaining limited trading hours for Bitcoin Futures.

4.1.5 Calendar Spread Implied Transaction Prices

Transaction Prices embedded in executed calendar spread trades are extracted by matching the execution timestamp of the relevant calendar spread trade to the nearest execution timestamp of the contract with the earlier expiration date (the nearby contract) that form part of said calendar spread transaction. Once a match has taken place, the price of the executed calendar spread is used to determine the Transaction Price of the other contract. Specifically, the timestamp matching process is as follows:

1. For every calendar spread transaction executed in partition m, identify the most recently executed outright transaction[1] in partition m of the nearby contract which were executed on or before the calendar spread execution, as long as the age of the most recent outright transaction relative to the respective calendar spread transaction does not exceed the Outright Trade Lag Threshold.
2. If there is no outright transaction matching the criteria in 1. in partition m, identify the immediately following outright transaction[1] execution in partition m of the nearby contract as long as the age of the respective calendar spread transaction relative to the respective outright transaction does not exceed the Outright Trade Lag Threshold.
3. If there is no outright transaction matching the criteria in 2. in partition m, the respective calendar spread transaction is excluded from the calculation of the index.
4. Matching can only take place between outright futures transactions (not "unpacked" outright futures transactions from calendar spreads) and calendar spread transactions that have individually been established to not be potentially erroneous.

---

[1] If more than one outright transaction fulfils either criteria 1 or 2, the transaction with the largest numeric transaction ID is selected. If any transaction ID is not numeric or not provided, an arbitrary transaction from the eligible set is selected.

5. Calendar spread trades where the expiration date of either the first or second leg exceeds the expiration date of the contract included in the roll price calculation with the farthest expiration date are ignored in the calculation of the index.

For the avoidance of doubt, a spread trade price represents buying the second leg and selling the first leg. For example, executed spread trade transaction BTCF8-BTCH8 @ +130 means that contract BTCH8 (leg 2) was bought and BTCF8 leg 1 was sold at a net price of +130. Therefore, if the identified transaction in BTCF8 (the nearby contract) was $20,000 and the size of the spread was 1 contract, the implied transactions are BTCF8: $20,000 @ 1 contract and BTCH8: $20130 @ 1 contract at the calendar spread execution time.

4.2 Example: Index Portfolio over Roll Period

This section illustrates an example for the evolution of the Index Portfolio's weights during the Roll Period of one Roll Interval. For this illustration, assume

Roll Days = [4,3,2] days prior to expiry,

Roll Time = 3:00 pm CT,

N = 1,

$w_{Front,Initial}$ = 0.75 and $w_{Next,1,Initial}$ = 0.25

Hence, Roll Steps rs_t are:

t (in business days relative to Expiry Day)	-4 at 3:00 pm CT	-3 at 3:00 pm CT	-2 at 3:00 pm CT
rs_t	1	2	3

The total number of Roll Steps is

$|rs|$ = 3.

The following Table shows the dynamics of the weights over the Roll Period at each Index Calculation Datetime. The third, fourth and fifth column refer to the weights, i.e., $w_{Front,t}$ and $w_{Next,n,t}$, which are respectively used for the calculation of the contract units $g_{Front,t}$ and $g_{Next,n,t}$.

Business Days prior to Exp. Day	Index Calculation Datetime *t and Roll Step DateTime rs*	Weight Front Contract $w_{Front,t}$	Weight Next Contract $w_{Next,1,t}$	Weight Next 2 Contract $w_{Next,2,t}$
4	3:00 pm CT	0.5	0.41667	0.08333
3	3:00 pm CT	0.25	0.58333	0.16667
2	3:00 pm CT	0	0.75	0.25

Outside of the roll window, the contract units g will remain constant, while the weights w will change as the underlying prices move. Note that on the Expiry Date of the Front Contract, the Weight Front Contract is at 0. The entire Roll Period falls outside Expiry Day.

5   Contingency Calculation Rules

5.1   Delayed or Missing Data

Delayed data and missing data are treated according to the following rules:

1. Where Relevant Transactions occur but cannot be retrieved from the CME proprietary data feed before the Index Publication Time then they will be disregarded from the relevant index calculation for that Calculation Day. Where there are less than two (2) Relevant Transactions in the referenced Contract within a specified partition (as defined in section 4.1.1 Eq. 2.1), that partition will be ignored in the calculation of the final roll price on that Calculation Day.

2. If there are no partitions with viable trade data on a roll day, the final roll price for the referenced Contract will be the CME Settlement Price.

3. If no CME settlement Price is published in a referenced Contract or the published price is erroneous on any Calculation Day, then a Calculation Failure Event shall be declared by the Administrator (see Section 5.6), unless stated otherwise in Roll Day Calculation Failure (Section 5.7)

5.2   Erroneous Data

All Relevant Transactions retrieved by the Administrator for the determination of a Reference Price on a given Calculation Day are subject to an automated screening for erroneous data according to the following rules:

1. If a Relevant Transaction in outright futures (whether captured as an outright transaction or implied from a calendar spread trade) shows a non-numeric or non-positive Transaction Price or trade size, it is flagged as erroneous. Executed prices of Relevant Transactions in calendar spread trades can be positive, negative or zero.

2. If a Relevant Transaction is reported in a format that deviates from the expected format such that it cannot be parsed, it is flagged as erroneous.

All Relevant Transactions flagged as erroneous for a given Calculation Day are disregarded in the calculation of the Reference Price, and hence index, on that Calculation Day.

5.3 Potentially Erroneous Data

All Relevant Transactions retrieved by the Administrator for a given Calculation Day are subject to automated screening for potentially erroneous data according to the following rules:

1. The first two trades in any partition are marked as potentially erroneous if either of those trades differ by more than the Outright Futures Potentially Erroneous Data Threshold (see parameter section 7) from the average of the two trades. In that event, the first trade is discarded and the next trade in the partition is evaluated until a first viable trade pair is found. The trade immediately following the first viable trade pair is potentially erroneous if its price exceeds the price of the second trade in that pair by more than the Outright Futures Potentially Erroneous Data Threshold.

2. Beyond the first viable trade pair in a partition, a Relevant Transaction observed for any Reference Price determination differs in price by more than the Outright Futures Potentially Erroneous Data Threshold from the previous Relevant Transaction utilised in the Reference Price determination is flagged as erroneous. Any transaction that triggers the provisions of this rule 5.3.1 will be discarded from consideration in assessing any subsequent Relevant Transaction for this rule 5.3.1

The following changes are made to the above steps for calendar spread trades:

1. The Outright Futures Potentially Erroneous Data Threshold only applies if either the most recent or the current (or both) executed calendar spread trade prices are outside the Calendar Spread Potentially Erroneous Data Range.

2. If both the most recent spread trade price and the current spread trade price are inside the Calendar Spread Potentially Erroneous Data Range, then the Calendar Spread Potentially Erroneous Data Threshold as an absolute threshold applies instead of the Outright Futures Potentially Erroneous Data Threshold for the purpose of potentially erroneous data calculation.

For the avoidance of doubt, the above potentially erroneous data calculation applies separately to both the initial set of outright futures trades and the initial set of calendar spread trades for a partition on any given Calculation Day before any matching and unpacking of calendar spread trades takes place. There is no additional potential erroneous data calculation after the unpacking methodology is completed.

All Relevant Transactions flagged as potentially erroneous for a given Calculation Day are disregarded in the calculation of the Reference Price on that Calculation Day. The occurrence of any such flag is reported to the CF Cryptocurrency Index Family Oversight Function ("**the Function**" or "**the Oversight Function**").

5.4   Delayed Calculation & Publication

Where for any reason the Administrator is not able to calculate and publish the index within the Publication Time on any given Calculation Day then the Administrator shall clearly communicate to all licensees via Statuspage informing index users that calculation and publication has been delayed. The Administrator will seek to publish the index for that Calculation Day as soon as it is able to. Should the Administrator not be able to calculate and publish the index by 23:59:59 London time then the provisions of Rule 5.6 shall come into effect.

5.5   Expert Judgement

The Administrator does not utilise expert judgement in the day-to-day calculation of the Index. In extraordinary circumstances Expert Judgement may be exercised by the Administrator in accordance with its codified policies and processes which are available upon request.

5.6   Calculation Failure

On non-roll days, if the index cannot be calculated for a given Calculation Day before 23:59:59 London time, for instance because:

- a Reference Price cannot be calculated for that day as insufficient Relevant Transactions occur in the relevant Contract and no CME Settlement Price is published

- sufficient Relevant Transactions occur but for any reason cannot be retrieved from the CME proprietary data feed and no CME Settlement Price is published

- all Relevant Transactions retrieved by the Administrator are flagged as erroneous or potentially erroneous (see Section 5.2) and no CME Settlement Price is published; or any other reason or circumstance that prevents the orderly calculation of the index

then the index for that Calculation Day undergoes Calculation Failure and NO index value is published for that day, subject to Restatement & Republishing Rules.

The occurrence of a calculation failure of the index is reported to the Oversight Function. Any Calculation Failure events will be clearly communicated to all licensees via Statuspage.

5.7   Roll Day Calculation Failure

If a Calculation Failure event occurs (as specified in Section 5.6) on any Calculation Day during the roll window, the roll for that day will be postponed to the next Calculation

Day. The last day where a roll can take place is the day immediately preceding the relevant monthly contract expiration date (day T-1). In the event that there are more roll days required than there are available until day T-1, the roll amounts will be adjusted proportionally and spread equally across available roll days. For the avoidance of doubt, if no amounts have been rolled prior to day T-1, then the entire position will be rolled on that day. If no CME settlement price is published on day T-1, then the most recently published CME settlement price is used for the index calculation on day T-1.

6 Restatement & Republishing

The Administrator may restate and republish the index value where the published value is found to be incorrect. This will only occur if both the below conditions are met:

1. **Timeliness** – where the Administrator can **RESTATE** and **REPUBLISH** the index value before the publication of the index value for the next Calculation Day

2. **Materiality** – where the **RESTATED** Index value has an absolute variance greater than **0.20%** for the Index for the given Calculation Day

Example:

- The index on a given Calculation Day is published as **1234.56**

- The index will only be **RESTATED** if it is:
  - Greater than **1237.03**

  OR

  - Less than **1232.09**

Where the above conditions are met the Administrator shall clearly communicate to all licensees via Statuspage that a restatement and republishing of the Index will take place for that Calculation Day.

The Administrator shall restate the index as soon as possible and shall do so by overwriting the previously published index value. This restated index value will carry no mark when published and will be final and not subject to any further change or republication.

7 Parameters

7.1 General Parameters

The following table summarizes the general parameters for the CF ROLLING CME BITCOIN FUTURES INDEX (EXCESS RETURN):

Parameter	Value
Roll Days	[4,3,2] days prior to Expiry Day of Front Contract
Roll Time (T)	7.00am to 3.00pm Central Time
Index Publication Time	3:15 pm Central Time
N	1
M	4 (i.e. 4 consecutive 2 hourly partitions)
τ	8 hours from 7am to 3pm Central Time
$|rs|$:	3
$w_{Front,Initial}$	0.75
$w_{Next,n,Initial}$	$w_{Next,1,Initial}$ = 0.25
Outright Futures Potentially Erroneous Data Threshold	20%
Calendar Spread Potentially Erroneous Data Threshold	$40
Calendar Spread Potentially Erroneous Data Range	[-$200,+$200]
Outright Trade Lag Threshold	10 seconds

7.2 Contract Specification

The specific Front Contract and Next Contract for each Roll Interval is listed in the following Table. Each row specifies the Front Contract and the Next Contract for the Roll Interval which has its closing Expiry Datetime in the month referenced in the first column.

Up to Expiry Datetime in Month	Front Contract (Symbol)	Next Contract (Symbol)
January	January (F)	February (G)
February	February (G)	March (H)
March	March (H)	April (J)
April	April (J)	May (K)
May	May (K)	June (M)
June	June (M)	July (N)
July	July (N)	August (Q)
August	August (Q)	September (U)
September	September (U)	October (V)
October	October (V)	November (X)
November	November (X)	December (Z)
December	December (Z)	January (F)

CONTRACT MONTH	PRODUCT CODE	FIRST TRADE LAST TRADE	SETTLEMENT
JUN 2023	BTCM23	27 JUN 2022 30 JUN 2023	03 JUL 2023
JUL 2023	BTCN23	30 JAN 2023 28 JUL 2023	31 JUL 2023
AUG 2023	BTCQ23	27 FEB 2023 25 AUG 2023	28 AUG 2023
SEP 2023	BTCU23	27 JUN 2022 29 SEP 2023	02 OCT 2023
OCT 2023	BTCV23	01 MAY 2023 27 OCT 2023	30 OCT 2023
NOV 2023	BTCX23	30 MAY 2023 24 NOV 2023	27 NOV 2023
DEC 2023	BTCZ23	03 JAN 2022 29 DEC 2023	02 JAN 2024
MAR 2024	BTCH24	03 OCT 2022 28 MAR 2024	01 APR 2024
JUN 2024	BTCM24	03 JAN 2023 28 JUN 2024	01 JUL 2024
SEP 2024	BTCU24	03 APR 2023 27 SEP 2024	30 SEP 2024
DEC 2024	BTCZ24	03 JAN 2023 27 DEC 2024	30 DEC 2024

8 Specifications

CF Rolling CME Bitcoin Futures Index (Excess Return)	
Ticker Symbol	CFCMBTCF
Administrator	CF Benchmarks
Publication Time	15:15 Central Time
Publication Frequency	All Days that the CME Bitcoin Futures Market is open for trading
Dissemination Precision	2 Decimal Places

9 Methodology Review and Changes

This methodology is subject to internal review by the Administrator and the Oversight Function at least annually.

Any changes to this methodology are overseen by the Oversight Function, and in accordance with the UK BMR Article 13.

All *material* changes to the methodology shall only be implemented after a consultation process with users and relevant stakeholders that shall be conducted according to the Administrator's policies and overseen by the Oversight Function.

Should the Administrator deem it necessary to cease providing the Index it shall only do so after a consultation process with users and relevant stakeholders that shall be conducted according to the Administrator's policies and overseen by the Oversight Function.

10 Contact Information

CF Benchmarks Ltd

Address	Contact
CF Benchmarks Ltd 6th Floor One London Wall London EC2Y 5EB	Web: https://www.cfbenchmarks.com Phone: +44 20 8164 9900 Email: contact@cfbenchmarks.com
	Formal complaints or concerns regarding CF Digital Asset Index Family and applicable documentation must be submitted by Email: complaints@cfbenchmarks.com Further details can be found on https://blog.cfbenchmarks.com/about/

Notice and Disclaimer