



INDEX GUIDE

FTX LEVERAGED BITCOIN INDEXES

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1 INTRODUCTION

1 Introduction

In accordance with Art. 13 No. 1 (a) of Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 (the “Benchmark Regulation”), this document provides the rules for establishing, calculating and maintaining the FTX Leveraged Bitcoin Indexes.

1.1 About FTX

FTX is a cryptocurrency exchange built by traders, for traders. FTX offers innovative products including industry-first derivatives, options, volatility products and leveraged tokens. FTX strives to develop a platform robust enough for professional trading firms and intuitive enough for first-time users.

1.2 About MarketVector Indexes GmbH

MarketVector Indexes GmbH (the “Index Administrator”) develops, monitors and markets the MVIS® Indexes, a focused selection of pure-play and investable indexes designed to underlie financial products. MVIS® is a registered trademark of Van Eck Associates Corporation and therefore protected globally against unlawful usage. MarketVector Indexes has selected an index calculation agent to calculate the index.

1.3 Approval of Index Methodologies

FTX has established the index and its individual methodology covered in this Index Guide. A detailed written “Procedure for Index Development” describes the steps and approvals required to develop, document and approve an index and its methodology. The intention of the Procedure for Index Development is to ensure that the methodology of an index meets the requirements of Art. 12 of the Benchmark Regulation and is approved and implemented according to a robust and reliable process.

The methodology for the index covered in this Index Guide has been analysed by the Index Administrator’s Index Operations department in order to ensure that it is robust and reliable, has clear rules on use of discretion, allows sustainable validation (based on reasonable back testing) and is traceable and verifiable. Furthermore, the size, liquidity and transparency of the underlying market for the methodology have been tested and particular circumstances for each relevant market have been taken into account.

The index methodology and the related detailed analysis were presented by the Index Operations Department to the Independent Oversight Function (“IOF”) for its approval. Based on the aforementioned approval process and its documentation, the index methodology was presented to the Management Board (Geschäftsführer) of the Index Administrator for final approval.

1.4 Review of this Index Guide

According to Art. 13 No. 1 (b) of the Benchmark Regulation, the Index Administrator reviews this Index Guide on an annual basis and immediately in case of special circumstances that require a review. The review takes place in meetings attended by the Independent Oversight Function and the Management Board of the Index Administrator. If changes to this Index Guide are considered necessary, the process described in Section 3.3 applies.

2 Indexes

The following sections define relevant index parameters, including:

- Review procedure.
- Dissemination: Times, currencies and identifiers.

2 INDEXES

2.1 FTX 5X Leveraged Bitcoin Index

The index provides a daily 5x exposure to the FTX BTC perpetuals.

Review procedure:

As the index represents a BTC perpetual price of FTX via CryptoCompare, there is no rebalancing and the index restarts from 100 if it turns negative.

The index is calculated with the constituent prices converted to USD, on a daily basis between 00:00 and 24:00 (UTC). Dissemination is in USD. Real-time index values are calculated with the latest available prices each 15 seconds. The closing value is calculated at 18:00:00 CET with fixed 18:00 CET exchange rates.

The FTX 20X Leveraged Bitcoin Index has the following identifiers:

Index Type	ISIN	SEDOL	WKN	Bloomberg	Reuters
Price Return Index	DE000SLOE1N0	BNGGLJ8	SLOE1N	FTX5XB	.FTX5XB

The index was launched on 01 February 2022 with a base index value of 100.00 as of 20 January 2022.

2.2 FTX 20X Leveraged Bitcoin Index

The index provides a daily 20x exposure to the FTX BTC perpetuals.

Review procedure:

As the index represents a BTC perpetual price of FTX via CryptoCompare, there is no rebalancing and the index restarts from 100 if it turns negative.

The index is calculated with the constituent prices converted to USD, on a daily basis between 00:00 and 24:00 (UTC). Dissemination is in USD. Real-time index values are calculated with the latest available prices each 15 seconds. The closing value is calculated at 18:00:00 CET with fixed 18:00 CET exchange rates.

The FTX 20X Leveraged Bitcoin Index has the following identifiers:

Index Type	ISIN	SEDOL	WKN	Bloomberg	Reuters
Price Return Index	DE000SLOEYT6	BNZHQG4	SLOEYT	FTX20XB	.FTX20XB

The index was launched on 06 January 2022 with a base index value of 100.00 as of 15 December 2021.

3 ONGOING MAINTENANCE

3 Ongoing Maintenance

3.1 Index Corrections

- Index corrections distinguish between calculation errors and incorrect input data.
- Calculation errors detected within a trading day are corrected immediately. Intraday tick data are not corrected retrospectively.
- Calculation errors that are older or based on erroneous input data are corrected if technically possible and economically viable. If significant differences exist, index values can also be corrected retrospectively.

3.2 Review of Index Concept

Due to a very dynamic market of digital assets and tokens the index methodology, parameters and thresholds will be reviewed at least once a year. Market participants feedback will be considered in the process whether or not to make amendments to the methodology and the data sourcing process. Any changes will be communicated by FTX and MarketVector Indexes with a 30-day lead time to enable customers to adjust their processes.

3.3 Changes to the Index Guide

Any changes to the Index Guide will be reviewed and approved by the Index Owner and MarketVector Indexes' Legal and Compliance Department. Legal and Compliance may also request a conclusive description and further information on any change and may consult the operations department on such changes. The key elements to be analysed in this phase of the change process are robustness, transparency, reliability and integrity. The result of the review will be communicated to the operations department. The email will be archived by the operations department.

In case of changes that might immediately change the composition of an index or must be considered material for any other reason also need to be approved by the Independent Oversight Function prior to their publication and implementation.

In case of material changes an advance notice will be published and provided to users. MarketVector Indexes will generally disseminate a notification related to an Index Guide change 30 days prior to the change. A shorter period of time may be applied at MarketVector Indexes' discretion if the relevant index has not been licensed for a financial product to a third party. The notice will describe a clear time frame that gives the opportunity to analyse and comment upon the impact of such proposed material change. Any material comments received in relation to the Index Guide change and MarketVector Indexes' response to those comments will be made publicly accessible after any consultation, except where confidentiality has been requested by the originator of the comments.

3.4 Discretion regarding the Use of Input Data and Extraordinary Events

Pursuant to Art. 12 No.1. (b), MarketVector Indexes has established the following rules identifying how and when discretion may be exercised in the administration of an index.

In case input data are or appear to be qualitatively inferior or different sources provide different data, an extraordinary event, or a situation is not covered by the index rules, MarketVector Indexes may use or change data/index composition at its own discretion according to the following discretion policy after a plausibility check. Regarding input data, this may include:

3 ONGOING MAINTENANCE

- Event information,
- Other secondary data.

Regarding extraordinary events, this may include:

- Trading stops,
- Regulatory actions,
- Etc.

Any changes must be subject to reasonable discretion. The decision on any change must be required, appropriate, commensurate and in line with the respective index scope and objective and must reasonably consider in a balanced way the interest of Users, investors in related products and the integrity of the market.

Index operations ensure consistency in the use of discretion in its judgement and decision. Employees involved in the operations team must have shown the respective experience and skills. Significant decisions are subject to sign-off by a supervisor. In case of material changes to data the relevant situation will be analyzed in detail, described and presented to the IOF and discussed and reviewed with the IOF.

The broad range of possible data quality problems does not allow to define specific steps for each possible instance. MarketVector Indexes will always weight the different interest of the index users, the integrity of the market and other involved parties and determine the least disadvantageous measure that equally considers the relevant interests best.

In order to avoid individual decisions in similar cases for the future an update of the index rules can be taken into consideration if applicable. Regarding the use of data, other possible mitigation measures are the change of input data sources or providers and/or own data research where possible and reasonable.

Records are kept about material judgement or discretion by MarketVector Indexes and will include the reasoning for said judgement or discretion.

3.5 Input Data and Contributor Selection

According to the input data requirements under Art. 11 of the Benchmark Regulation the following shall apply with regard to the input data used for the management and provision of an index and the relevant input data providers ("Contributors"):

- the input data shall be sufficient to represent accurately and reliably the market or economic reality that the benchmark is intended to measure;
- the input data shall be transaction data, if available and appropriate. If transaction data is not sufficient or is not appropriate to represent accurately and reliably the market or economic reality that the index is intended to measure, input data which is not transaction data may be used, including estimated prices, quotes and committed quotes, or other values;
- the input data shall be verifiable;
- clear guidelines regarding the types of input data, the priority of use of the different types of input data and the exercise of expert judgement, to ensure compliance with the Index Guide and index methodology and the aforementioned requirements are defined in the Code of Conduct for Contributors; and

3 ONGOING MAINTENANCE

- where an index is based on input data from Contributors, MarketVector Indexes will obtain, where appropriate, the input data from a reliable and representative panel or sample of Contributors so as to ensure that the resulting index is reliable and representative of the market or economic reality that the index is intended to measure.

In order to control the quality of Contributors, MarketVector Indexes will conduct the following controls:

- Evaluate market share, reputation, quality and cost of possible input data sources and providers before selecting them on the basis of the gathered information and data;
- Compare the input data of one Contributor with the input data from one or more other Contributors in order to ensure the integrity and accuracy of the input data and in case of bad quality replace a Contributor with another Contributor.

MarketVector Indexes will not use input data from a Contributor if it has any indication that the Contributor does not adhere to its Code of Conduct for Contributors and in such a case shall obtain representative publicly available data.

3.6 Data Correction and Disruptions

MarketVector Indexes will usually receive information about errors or disruption from calculation agent, Index Owner, client, internal systems (IT) or by monitoring the respective output.

Incorrect or missing input data will be corrected immediately:

- The error is immediately communicated to the calculation agent, if applicable.
- Calculation agent will be asked to investigate the reason for the error.
- An email will be sent to all affected clients to inform them about the error; this includes the reason for the issue and an estimate on when the issue will be solved.
- MarketVector Indexes recalculates missing EOD data points and disseminates to vendors and clients.

In case of a material error,

- Legal and Compliance to check the relevant agreements for liability of the calculation agent.
- If MarketVector Indexes identifies any conduct that may involve manipulation or attempted manipulation of an index by a calculation agent it will report this to the regulator.
- Where possible and economically reasonable MarketVector Indexes will try to use another calculation agent.

Investigations and communication regarding disruptions with calculation agents will be handled by Compliance and Senior Management. They are either caused by disruptions in calculation or dissemination, which might affect different servicers.

- The disruption is immediately communicated to the calculation/dissemination agent, if applicable.
- Calculation/dissemination agent will be asked to investigate the reason for the disruption.
- An email will be sent to all affected clients to inform them about the disruption; this includes the reason for the issue and an estimate on when the issue will be solved.
- MarketVector Indexes prompts calculation agent to make all efforts to restart index calculation.

4 CALCULATION

- MarketVector Indexes prompts dissemination agent to make all efforts to restart index dissemination.
- MarketVector Indexes recalculates missing EOD data points and disseminates to vendors and clients.
- Legal and Compliance to check the relevant agreements for liability of the calculation/dissemination agent.
- If MarketVector Indexes identifies any conduct that may involve manipulation or attempted manipulation of an index by calculation/dissemination agent it will report this to BaFin.
- Where possible and economically reasonable MarketVector Indexes will try use another calculation and/or dissemination agent.

4 Calculation

4.1 Index Formula

The index is calculated using leveraged Bitcoin perpetual price, taking into account the funding rate:

$$Index\ Value_t = Index\ Value_T * \left[1 + Leverage\ Multiplier * \left(\frac{Leveraged\ Price_t (1 - Funding\ Rate_t)}{Leveraged\ Price_T (1 - Funding\ Rate_T)} - 1 \right) \right],$$

for calculation date t and the last rebalancing date T in the index.

The index will be rebased to 100 if it turns negative.

5 Appendix

5.1 Changes to the Index Guide

Date	IG Version	Change
01 February 2022	1.1	Inclusion of FTX5XB

6 Disclaimer

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