



February 19, 2025

VIA COMMISSION PORTAL

Christopher J. Kirkpatrick
Secretary, Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street, N.W.
Washington, D.C. 20581

**Re: Commission Regulation 40.2(a) – Certification of Bitcoin Range Binary Options
LedgerX LLC Submission No. 25-11**

Dear Mr. Kirkpatrick:

LedgerX LLC d/b/a MIAX Derivatives Exchange (“MIAXdx” or “Company”) hereby notifies the Commodity Futures Trading Commission (the “Commission”), pursuant to Commission Regulation 40.2(a), that it is certifying the Bitcoin Range Binary Options Contract (the “Company Contract” or “BTCRB Options”) for trading on MIAXdx’s designated contract market (“DCM” or “Exchange”). The BTCRB Options do not meet the definition of “referenced contract” as that term is defined in Commission Regulation 150.1 and is described in Appendix C to Part 150 of Commission Regulations.

MIAXdx will list the Company Contract no earlier than March 5, 2025.

This certification includes the following:

- A concise explanation and analysis of the Company Contract, attached as Appendix A.
- A copy of the Company Contract’s specifications, which will be published on MIAXdx’s website, attached as Appendix B.
- An explanation of the underlying index methodology, attached as Appendix C.
- A concise explanation and analysis of the Company Contract’s compliance with applicable provisions of the Commodity Exchange Act (the “CEA”), including the relevant Core Principles, and the Commission’s Regulations thereunder, attached as Appendix D - Confidential. Please note that Appendix D – Confidential is redacted in this document, with the unredacted version included in a segregated appendix entitled “MIAXdx_BTCRB Option_Rule 40.2 Filing_Confidential Appendices D and E (02.19.2025).”
- An analysis in further support of compliance with DCM Core Principle 3, attached as Appendix E - Confidential. Please note that Appendix E – Confidential is redacted in this document, with the unredacted version included in a segregated appendix entitled “MIAXdx_BTCRB Option_Rule 40.2 Filing_Confidential Appendices D and E (02.19.2025).”
- A request for FOIA confidential treatment for Appendix D - Confidential and Appendix E - Confidential, included in the “MIAXdx_BTCRB Option_Rule 40.2 Filing_Confidential Appendices D and E (02.19.2025)” segregated appendix.

MIAX Derivatives Exchange

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miadx.com



MIAXdx certifies that the Company Contract complies with the CEA and Commission Regulations thereunder. MIAXdx additionally certifies that it has concurrently posted a copy of this submission letter and the non-confidential appendices hereto on MIAXdx's website at <https://www.miaxdx.com/reg-notices>.

* * * *

Please contact the undersigned at margo@miaxdx.com if you have any questions or you would otherwise like to discuss this further.

Sincerely,

Margo Bailey

Margo Bailey, Senior Counsel
LedgerX LLC d/b/a MIAX Derivatives Exchange

MIAX Derivatives Exchange

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Appendix A

Below is a concise explanation of the Company Contract:

The Company Contract is an hourly-expiring, fully-collateralized, cash-settled binary option on the price of Bitcoin ("BTC"), as calculated by the dxFeed Bitcoin Reference Index, listed for trading at mutually exclusive ranges ("MERs") set by the Company. The Company will determine the number and bounds of the MERs associated with the Company Contract, provided that it will establish at least three MERs for each Company Contract. Each MER will be at least \$100.00 from its lower bound to its upper bound. The Company will define the MERs for each Company Contract each day based upon market conditions, changes or expected changes in the Settlement Price, or any other factor as determined in the Company's discretion. The Company will list a Company Contract expiring each hour during Trading Hours for a total of seven contracts listed each Business Day.

If a Participant believes the Company Contract will settle within a particular MER, then the Participant may purchase the Company Contract and establish a "Yes" or "long" position for that MER. If a Participant does not believe the Company Contract will settle within a particular MER, then the Participant may sell the Company Contract, thereby establishing a "No" or "short" position for that MER.

The Company Contract will settle to the dxFeed Bitcoin Reference Index, described below. If the Settlement Price falls within a MER at expiration, then all "Yes" or "long" positions for that MER receive the full notional amount of the Company Contract, while all "No" or "short" positions for that MER receive no payment. All other MERs for that Company Contract settle to the "No" or "short" position, resulting in payouts to Participants holding the "No" position, while Participants holding the "Yes" position for those other MERs receive no payment.

A. Placing an Order for Company Contract

Prior to accepting an order for the purchase or sale of a Company Contract, MIAxdx shall review the Participant's Collateral Account to ensure the Participant can fully collateralize the Participant's obligations under the Company Contract. See Rules 6.1.A and 7.1.¹ Prior to execution, a prospective buyer (*i.e.*, holder of the "Yes" position) must post to MIAxdx the aggregate amount of USD that could be debited from the buyer's Participant Account at Settlement to satisfy its settlement obligations. Prior to execution, a prospective seller (*i.e.*, holder of the "No" position) must post to MIAxdx the aggregate amount of USD that could be debited from the seller's Participant Account at Settlement to satisfy its settlement obligations. The Company Contract may only be collateralized by a Participant in USD.

B. Execution of Order for Company Contract

At the time an order for a Company Contract is executed, MIAxdx generally shall debit the Purchase Price in USD from the buyer's Participant Account and shall debit the Sale Price in USD from the seller's Participant Account.² MIAxdx shall hold both the buyer's and seller's required collateral, as determined by their total portfolio, unencumbered pending Settlement or expiration of the Company Contract to ensure performance. See DCO Rule 7.2.

¹ MIAxdx filed proposed amendments to its DCM and DCO Rulebooks on February 17, 2025. These amendments are expected to become effective March 3, 2025.

² For example, in some circumstances, a Participant's portfolio may remain fully collateralized even if MIAxdx does not require that Participant to post the full Purchase Price (or Sale Price) for a particular trade, since the ranges of the BTCRB Options are mutually exclusive within an expiration, and only one range will resolve to "Yes" while the other ranges in that same expiration will resolve to "No."

C. Settlement or Expiration of Company Contract

As soon as practicable after expiration, the index calculation agent, Devexperts, will calculate the value of the dxFeed Bitcoin Reference Index (“Settlement Index”) in USD at the time of expiration (the “Settlement Price”). If the Settlement Price is (i) greater than or equal to the lower bound of the MER, and (ii) less than the upper bound of the MER, then:

- Participants with “Yes” or “long” positions for that MER receive the full notional amount of the Company Contract (\$10) and Participants with “No” or “short” positions for that MER receive no payment.
- For all other MERs, Participants with “No” or “short” positions receive the full notional amount of the Company Contract and Participants with “Yes” or “long” positions receive no payment.

See a sample settlement process below.

Sample Settlement Process:

Annie establishes a “Yes” position and Doug establishes a “No” position for the \$65,000-\$70,000 range. Sally establishes a “Yes” position and Jim establishes a “No” position for the \$60,000-\$65,000 range.

- **Example 1:** The Settlement Price is **\$67,500**. MIAXdx will credit to both Annie and Jim the full notional amount of the Bitcoin Range Binary Option. Doug and Sally will each receive no payment.
- **Example 2:** The Settlement Price is **\$63,400**. MIAXdx will credit to Sally and Doug the full notional amount of the Bitcoin Range Binary Option. Annie and Jim will each receive no payment.
- **Example 3:** The Settlement Price is **\$71,000**. MIAXdx will credit to Doug and Jim the full notional amount of the Bitcoin Range Binary Option. Annie and Sally will receive no payment.

Sample Daily MERs for Company Contract

Ranges	Price - Yes	Price - No
≥\$70,000	2	8
≥\$65,000 to <\$70,000	4 (Annie)	6 (Doug)
≥\$60,000 to <\$65,000	2 (Sally)	8 (Jim)
≥\$55,000 to <\$60,000	1	9
<\$55,000	1	9

For more information, the Company Contract specifications, which will be published on MIAXdx’s website, are attached as Appendix B.

Appendix B

Bitcoin Range Binary (“BTCRB”) Options

A. Contract Description. Each BTCRB Option is an hourly-expiring, fully-collateralized, cash-settled binary option on the price of bitcoin, as calculated by the dxFeed Bitcoin Reference Index, listed for trading at mutually exclusive ranges (“MERS”) set by the Company. The Company will determine the number and bounds of the MERS associated with each BTCRB Option, provided that the Company will establish at least three MERS for each contract. Each MER will be at least \$100.00 from its lower bound to its upper bound (e.g., \$50,100.00 to \$50,200.00). The Company will define the MERS for the BTCRB Options each day based upon market conditions, changes or expected changes in the Settlement Price, or any other factor as determined in the Company’s discretion.

If a Participant believes the BTCRB Option will settle within a particular MER, then the Participant may purchase the BTCRB Option and establish a “Yes” or “long” position for that MER. If a Participant does not believe the BTCRB Option will settle within a particular MER, then the Participant may sell the BTCRB Option, thereby establishing a “No” or “short” position for that MER. The BTCRB Option settles to the dxFeed Bitcoin Reference Index. If the Settlement Price is greater than or equal to the lower bound of a MER and less than the upper bound of a MER, then all “Yes” positions for that MER receive the full notional amount of the Company Contract, while all “No” positions for that MER receive no payment. All other MERS settle on the “No” position, resulting in payouts to Participants holding the “No” position, while Participants holding the “Yes” position for those other MERS receive no payment.

B. Trading Hours. The trading hours that are applicable to the BTCRB Options will be as stated in DCM Rule 5.6.

C. Currency. The currency applicable to BTCRB Options will be United States dollars and cents.

D. Product Code. BTCRB

E. Contract Size. Each BTCRB Option will be offered in \$10 units.

F. Trade Date. With respect to any BTCRB Option, the date on which the Company, in its sole discretion, accepts a buy or sell order, as the case may be.

G. Effective Date. With respect to any BTCRB Option, the Trade Date applicable thereto.



- H. Minimum Tick.** \$0.01
- I. Price Limits.** With respect to any BTCRB Option, \$0.01 to \$9.99.
- J. Purchase Price.** With respect to any BTCRB Option, the total USD denominated amount that a Buyer agreed to pay for the BTCRB Option is the Purchase Price.
- K. Sale Price.** With respect to any BTCRB Option, the total USD denominated amount at which the Seller agreed to sell the BTCRB Option is the Sale Price.
- L. Collateral.** All Company Contracts will be fully collateralized. Before the Company will accept a buy order for one or more BTCRB Options from a Participant, such Participant must have sufficient USD available for trading in its account to satisfy its settlement obligations on such Company Contract(s). Before the Company will accept a sell order for one or more BTCRB Options from a Participant, such Participant must have sufficient USD available for trading in its account to satisfy its settlement obligations on such Company Contract(s).
- M. Expiration.** On each Business Day, expiring every hour from 10am ET to 4pm ET.
- N. Last Trading Time.** Trading is permitted until expiration.
- O. Settlement.** Cash-settled as soon as possible after expiration.
- P. Procedures for Establishing Daily MERs.** The Company may use one of two regular procedures to establish daily MERs. Each procedure involves establishing the “inner ranges” along with the “bookend ranges” such that the set of the inner and bookend ranges corresponds to all possible values of the dxFeed Bitcoin Reference Index. Under either procedure, the MERs are established by referencing the dxFeed Bitcoin Reference Index value at 9am ET along with other parameters selected by the Company. The Company will list a minimum of 3 ranges with a minimum range width of \$100 for each expiration of the Company Contract. Once established, the daily MERs remain the same throughout the day. The Company will publish the MERs for all expirations each day as soon as possible after 9am ET.

The first regular procedure establishes MERs based on a selected upper and lower percentage change relative to the dxFeed Bitcoin Reference Index value at 9am ET, along with other selected parameters, such as the number of inner ranges, the minimum range width, and a rounding factor.

The second regular procedure establishes MERs based on a selected range width in USD, along with other parameters such as the number of inner ranges selected by the Company and a rounding factor.

If for whatever reason the dxFeed Bitcoin Reference Index value at 9am ET is unavailable or not reliable, then the Company may use an alternative value as a substitute for the dxFeed Bitcoin Reference Index in the regular procedures described above.

- Q. Underlying.** The dxFeed Bitcoin Reference Index (“Settlement Index”) represents the price of BTC in USD, as calculated according to the index methodology, by aggregating trade data from one or more eligible trading venues during a ten-minute calculation window. Any changes to the composition of the dxFeed Bitcoin Reference Index and eligible trading venues will be made in accordance with the reference rate methodology guide and announced publicly. The methodology is available [here](#).
- R. Bitcoin.** Bitcoin is a computer network and protocol that allows digital currency to be stored and transferred in a distributed manner without the need for a central intermediary. The BTC network is a form of blockchain, which allows consensus to be built and maintained on a distributed, decentralized basis by parties with no inherent reason to trust one another. Each individual BTC transaction is validated by the network of decentralized parties, or nodes, over a period of time and then added to a “block”, which is then cryptographically linked to the immediately preceding block (over time, creating a chain, or a “blockchain”).
- S. Calculation Agent.** Devexperts Inc. (“dxFeed”)
- T. Listing Cycle.** The Company shall post in a location on its website available to Participants a list of Company Contracts that are available for trading as may be determined by the Company.
- U. Position Limits.** 1,500 BTCRB Option contracts per each MER, per each expiration, per each Participant.
- V. Block Trading.** Block trading is not permitted in BTCRB Option contracts.
- W. Conventions.**
1. *Fallback Provisions.* In the event that the Company, in its sole discretion, determines that the Settlement Index value pertaining to an expiration of the Company Contract cannot be (i) calculated by the Calculation Agent, (ii) obtained from the Calculation Agent, (iii) processed, (iv) relied upon, or (v) is otherwise not appropriate to settle the Company Contract, then the Company will have the right to determine the Settlement Price pertaining to that expiration of the Company Contract. The Company will similarly have the discretion to postpone settlement for fourteen (14) Business Days.



2. *Settlement Index Revisions.* In the event that the Settlement Index value is revised, recalculated, or restated for any reason after the Company Contract has settled, the Company will have no obligation to revise or modify the Settlement Price or the results of settlement of the Company Contract.
3. *Refrain from Listing Company Contracts.* The Company may refrain from listing the Company Contract due to the unavailability or unreliability of the Settlement Index, the unavailability or unreliability of the spot markets comprising the Settlement Index, or for any other reason as determined by the Company in its sole discretion.



Appendix C

INDEX METHODOLOGY

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dxFeed Digital Asset Reference Indices

Index Methodology

dxFeed Index Management Team im@dxFeed.com

February 2025

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1. Summary

The dxFeed Digital Asset Reference Indices (“Indices” or “Index”) are designed to reflect the performance of digital asset cryptocurrencies in US Dollars constructed by a manipulation resistant methodology with sourced transactional data from centralized exchanges.

The dxFeed Digital Asset Reference Indices are intended to measure the economic reality of the underlying base asset. Each Index serves as an independent, robust, and transparent pricing source. This is accomplished by utilizing transactional input data from markets and eligible constituent exchanges that promote efficient markets for market participants.

1.1 Supporting Benchmark Statement Documentation

Please refer to the [dxFeed Index Governance Policies and IOSCO Compliance](#) document in conjunction with this Index Methodology.

2. Data Source

2.1 Data Provider

dxFeed sources data from eligible constituent exchanges that are approved by the dxFeed Index Policy Committee (“IPC”) to serve as a pricing source for the dxFeed Digital Asset Reference Indices. The Index calculation is based on executed trades and observable transactions from constituent exchanges to accurately and reliably reflect the fair market value of the underlying asset.

The Indices do not use contributed input data.

2.2 Constituent Exchanges

All eligible exchanges are subject to review and approval by the dxFeed IPC. The list of constituent exchanges that are included in the Indices are: Bitstamp and Gemini.

New exchanges that meet the eligibility requirements will be considered for inclusion into the list of constituent exchanges and must be approved by the dxFeed IPC.

3. Index Methodology

3.1 Index Computation

The index value y_t at time t is computed as follows:

1. Let $W > 0$ be a fixed-time calculation window.
2. Consider a time interval $I = [t - W, t)$.
3. Partition the time interval I into N equal-sized disjunctive subintervals:
$$P(I, N) = \{[t_p, t_{p+1}) \mid p \in 1 : N, t_{p+1} - t_p = W/N, t_1 = t - W, t_{N+1} = t\}.$$
4. Consider a set of M exchanges. For each subinterval $[t_p, t_{p+1}) \in P(I, N)$, compute the Volume Weighted Average Price $VWAP_e^p$ of prices from exchange $e \in 1 : M, p \in 1 : N$.
5. Find the median VWAP for each subinterval over all exchanges and then find the mean resulting medians:

$$y_t = \frac{1}{N} \sum_{p=1}^N \text{median} \{VWAP_e^p \mid e \in 1 : M\}$$

3.2 Index Contingency Rules

The dxFeed Digital Asset Reference Indices are crafted to ensure publication availability at any given time through a methodology that guarantees rate availability. In cases where the data sufficiency criteria, described below, are not fulfilled within a designated Calculation Window, a Fallback mechanism will be implemented.

3.2.1 Data Sufficiency Requirement for Fallback Activation

Within a Calculation Window, if either of the following thresholds is not met, the fallback mechanism is initiated:

- At least 1 exchange with trading activity, or
- Minimum transaction count for the applicable Index.

3.2.2 Fallback Provisions

The methodology's fallback mechanism operates as an iterative and recursive procedure. If the data sufficiency criteria are not met by the conclusion of a Calculation Window, the window will be extended by one partition until the sufficiency threshold is reached. If the new partition resolves the sufficiency requirement, the recursive process ceases, and the Reference Index is published. The fallback Calculation Window can extend up to two days prior to ensure data adequacy is achieved.

3.3 Index Precision

The dxFeed Digital Asset Reference Indices are calculated with 10 decimal places of precision and is published with 4 decimal places.

3.4 Index Calculation Frequency

The dxFeed Digital Asset Reference Indices are calculated hourly from 9:00 am Eastern Time to 4:00 pm Eastern Time Monday through Friday. The Index is published on dxFeed's website (indexit.dxfed.com) and is distributed to a variety of global data vendors.

4. Index Governance

4.1 Index Administrator

dxFeed is the benchmark administrator of the index ("Administrator"). The Administrator is responsible for the decisions regarding the index methodology and rules, as well as the daily management of the index.

The Indices are classified as non-significant benchmarks.

4.2 Index Committees

dxFeed has established two committees to provide overall oversight and governance for the Indices.

Governance functions are managed by the following committees:

- Index Oversight Committee (IOC)
- Index Policy Committee (IPC)

Index Oversight Committee

The IOC provides independent oversight of all aspects of the governance of benchmark administration. The IOC has no authority to make specific index content decisions, which are the independent editorial responsibility of the IPC. The key responsibilities of the IOC include, but are not limited to, the following:

- Oversee the other governance committees to ensure their respective responsibilities are adequately performed.
- Make recommendations to relevant stakeholders based on reports and information provided by functional areas and other governance committees.
- Report to the national competent authority, as required by law.
- The IOC may seek information regarding any aspect of benchmark administration and is authorized to seek detailed information and presentations on relevant topics from any employee.

- The IOC may request internal or commission external audits of relevant benchmark administration processes.
- The IOC is comprised of dxFeed representative members from areas not directly involved in benchmark administration and non-voting members with backgrounds and experience in research and data operations that can provide specific market knowledge and operational expertise.
- Membership shall be revoked for the following reasons:
 - The member notifies the committee of his or her decision to resign from the IOC.
 - The member is no longer an employee of the company or his or her role changes significantly.
 - The member does not fulfill or is not capable of fulfilling his or her responsibilities on the committee, including attendance at meetings.
- Meetings are to be held at least quarterly and as needed and may be attended in person or by teleconference.
- The chairperson and at least one other voting member of the committee must be present at any meeting. Each voting member has one vote.
- In instances when an IOC decision is required and scheduling an ad-hoc IOC meeting is not possible, such decision may be reached via email communication.
- Decisions will be taken by simple majority of the voting members present at a meeting or voting by email.
- Members must disclose any potential conflict of interest before each agenda item and recuse themselves from any discussions where they have a conflict of interest. This will be recorded in the minutes.
- The committee may ask any personnel to attend or to present at the meeting. These attendees will not have voting rights.
- The agendas for all the IOC meetings contain the date, time, expected attendees and topics. Topics presented at the IOC may have supporting documents.
- Generally, the minutes of all IOC meetings contain the date, time, attendees, topics discussed, and decisions made.

Index Policy Committee

The IPC presides over methodology developments and changes as well as market classification decisions. These terms of reference are reviewed and approved by the relevant IOC annually.

The key responsibilities of the IPC include, but are not limited to, the following:

- Review and approve new methodologies or methodology changes.
- Make decisions on market reclassifications for the indexes.
- Make decisions on index terminations.
- Review summary of regular equity index rebalancing results.
- Review and approve complex or exceptional corporate event treatment that cannot be addressed by current methodologies.
- Review and approve the Index Policies document.
- The IPC is currently composed of members comprised of senior representatives of dxFeed's Index Quant and Index Management team.
- Changes in membership are proposed by the IPC and approved by the CEO.
- The IPC meets on an ad-hoc basis as required.
- IPC meetings require the attendance of at least three members.
- No substitutes and no delegates are accepted.
- The agendas for all IPC meetings contain the date, time, expected attendees and topics. All topics presented at the IPC generally have supporting documents.
- Generally, the minutes of all IPC meetings contain the date, time, attendees, topics discussed, and decisions made.
- In instances when an IPC decision is required, while scheduling an IPC meeting is not possible within the required timeframe, such decision may be reached via email communication, provided at least three members of the IPC explicitly approve a proposal. In case of exceptionally time critical, typically market driven topics, consent of two IPC members may be sufficient.

4.3 Expert Judgement

The Administrator does not utilize expert judgement in the daily maintenance of the Indices. The Indices are based on transparent methodology rules and procedures to minimize the exercise of discretion and expert judgement.

The Indices are calculated from input data from observable transactions. In the event of extraordinary circumstances in the case of errors and index restatement, erroneous data, delayed or missing data, or corporate actions (delisting, hard forks, and airdrops), the Administrator may exercise expert judgement in accordance to written procedures, policies and processes overseen by the IOC.

4.4 Recalculations and Restatements

The dxFeed Digital Asset Reference Indices are subject to recalculations and restatements of index values. In the case of a material error, the index will be recalculated, and a notice communicated with

subscribed clients via email. An error is considered material on the basis of the accuracy, size, date, consistency, and impact reflecting the economic reality of the Index.

The Administrator will recalculate and restate the impacted value as soon as possible post publication.

4.5 Index Methodology Changes

The dxFeed Digital Asset Reference Indices methodology is reviewed internally on an annual basis. Changes to the methodology are subject to review and approval by the IPC. Announcements regarding substantive changes or termination to the Index will be made publicly available prior to the effective date of the change.

5. Disclaimer

Devexperts Inc. (“dxFeed”) might receive compensation for licensing its indices to third parties and providing custom calculation services. dxFeed products are governed by the terms and conditions of the agreements under which they are provided. A license is required from dxFeed to display, create derivative works of, and/or distribute any product or service that uses, is based upon, and/or refers to any dxFeed index data.

It is not possible to invest directly in an index. Exposure to an asset class represented by an index is available through investable instruments based on that index. dxFeed makes no assurance that investment products based on the index will accurately track index performance or provide positive investment returns. dxFeed is not an investment advisor and makes no representation regarding the advisability of investing in any investment fund or other investment vehicle, including those based on dxFeed products or any documents and statements found in this document. Prices for dxFeed indices are calculated by dxFeed based on the prices of the index’s individual constituents as set by their primary exchange or source. Prices are received by dxFeed either directly or from one of its third- party vendors. Vendors receive the prices from the primary exchanges.

Charts and graphs are provided for illustrative purposes only. The charts and graphs may reflect hypothetical historical performance. All information presented before the launch date is back-tested. Back-tested performance is hypothetical, not actual performance. The back-test calculations are based on the same methodology in effect after the indices’ official launch. Back-tested performance reflects the application of an index’s methodology and selection of index constituents. It adds the benefit of hindsight and knowledge of factors that may have positively affected its performance. Back-testing cannot account for all financial risks affecting results and may be considered to reflect survivor/look-ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results. Except for certain custom index calculation services, all information provided by dxFeed is impersonal. It is not tailored to the needs of any person, entity, or group of persons.

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6. dxFeed Digital Asset Reference Indices

6.1 dxFeed Bitcoin Reference Index

The dxFeed Bitcoin Reference Index represents the price of Bitcoin in U.S. dollars by aggregating trade data from two spot exchanges, Bitstamp and Gemini, during a 10-minute Calculation Window prior to each hour from 9 a.m. ET to 4 p.m. ET on business days. Each Calculation Window is divided into 20 thirty-second time intervals or partitions. All partitions are equally weighted. For each partition, dxFeed will calculate the volume weighted average price (“VWAP”) for each spot exchange. Further, for each partition, dxFeed will calculate the median of the VWAPs for each exchange. The dxFeed Bitcoin Reference Index is then determined by averaging each partition’s median VWAP value.

As described in Section 3.2.1, if there is not a minimum transaction count of at least 50 transactions across the spot exchanges during the Calculation Window, the fallback mechanism is initiated.

Index Name	dxFeed Bitcoin Reference Index
Index Ticker	DXBTC:MIAXDX
Refinitiv Instrument Code (RIC)	.DXBTC
Bloomberg Ticker	DXBTC
Index Base Date	06/03/2024
Index Launch Date	06/03/2024
Index Base Value	69664.6771
Index Currency	USD

Calculation Frequency	VWAP Calculation Window	VWAP Partition Length	Eligible Constituent Exchanges
Hourly, 9:00 am Eastern Time to 4:00 pm Eastern Time (Monday through Friday)	10 minutes	30 Seconds	Bitstamp Gemini

7. Version History

Date	Version	Log of Changes
06/03/2024	1.0	Initial Methodology Publication
02/13/2025	2.0	Addition of Section 1.1 – Supporting Benchmark Statement Documentation



Appendix D – Confidential

REDACTED



Appendix E – Confidential

REDACTED