

# coinbase DERIVATIVES

LMX Labs, LLC d/b/a Coinbase Derivatives

May 23, 2023

## VIA CFTC Electronic Portal

Mr. Christopher J. Kirkpatrick  
Secretary of the Commission  
Office of the Secretariat  
Commodity Futures Trading Commission  
Three Lafayette Centre  
1155 21st Street, NW  
Washington, DC 20581

**Re: CFTC Regulation 40.2(a) Certification: Listing of Ether Futures Contract  
Coinbase Derivatives Submission #2023-3E**

Dear Mr. Kirkpatrick:

Pursuant to Commodity Futures Trading Commission (“CFTC” or “Commission”) Regulation 40.2(a), LMX Labs, LLC, d/b/a Coinbase Derivatives (the “Exchange” or “CDE”) hereby submits for self-certification its initial listing of the Ether Futures contract to be offered for trading on the Exchange on trade date June 5, 2023.

### Contract Description

The Ether Futures contract (the “Contract”) will be a monthly cash-settled and margined contract with the following specifications:

<b>Product</b>	Ether Futures
<b>Product Type</b>	USD-settled index future
<b>Contract Size</b>	10 Ether
<b>Displayed Price Example</b>	\$2,000.50
<b>Contract Notional</b>	~\$20,000 contract notional (i.e. 10 x ~ estimated Ether price \$2,000)  Contract will always represent 10 Ether, using an estimated Ether price of \$2,000 for illustrative purposes.
<b>Contract Code</b>	ETI
<b>Minimum Tick Size and Value</b>	<b>Min tick size:</b> \$0.50 per ether <b>Min tick value:</b> \$5 per contract
<b>Listed Contracts</b>	4 nearest monthly contracts, and the next December contract. A second December contract will be listed if one is already listed in the nearest 4 monthly

	contracts.
<b>Daily Settlement</b>	Daily Settlement: 3:00 pm CT 1. 1-min VWAP of futures contract rounded to the nearest tradable tick 2. 1-min TWAP of futures contract midpoint of the Bid/Ask rounded to the nearest tradable tick 3. If a two-sided market is not available during the sixty (60) seconds prior to 3:00 PM CT, then the Settlement Price will be the Market Vector Coinbase CETBR index value - (difference between previous day's CETBR value and previous day's futures settlement)
<b>Final Settlement</b>	Final settlement price of the expiring contract will be the value of the Market Vector Coinbase Ethereum benchmark reference rate (CETBR) at 4:00 p.m. London time, calculated and disseminated by Market Vector. Contracts will be cleared by Nodal Clear
<b>Daily Price Limits</b>	30% Daily Price Limits based on previous day settlement
<b>Price Fluctuation Limits</b>	10% of Hourly Calculated Reference Price
<b>Last Trading Day</b>	Trading terminates at 4:00 pm London time on the last Friday of the contract month. If that day is not a business day in the U.S., trading terminates on the preceding day that is a U.S. business day.
<b>Position Limits</b>	40,000 ETI aggregate
<b>Large Trader Reporting</b>	5 contracts
<b>Trading Hours</b>	5pm to 4pm CT Sun-Fri, with trading halt from 4pm to 5pm CT Mon-Thurs.

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- I. Ether Overview
- I. Contract Description
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- IV. Compliance with Core Principles

### I. Ether Market Overview

The Ether token (ETH) is a digital asset that was launched by the Ethereum Network in 2014 through an Initial Coin Offering. Like other digital assets, Ethereum is created on an open source network with no intermediaries. As of May 10, 2023 there were approximately 117.84 million ETH in circulation.<sup>1</sup> Unlike Bitcoin, ETH is designed to have an unlimited supply, though there is an annual maximum limit of 18 million ETH allowed to be created every year. In that respect, it mimics fiat currencies where a higher supply generally leads to lower value. This benefits the smaller trader or those entering the market as it makes investing in ETH more attainable for the individual trader<sup>2</sup>.

### II. Contract Description

The Ether Futures contract is a cash-settled contract based on the MarketVector Coinbase Ethereum Benchmark Rate Index (“Index”). This Index tracks the price of Ethereum as traded on the Coinbase spot exchange. MarketVector is an Index Provider based in Frankfurt, Germany and is regulated by the Federal Financial Supervisory Authority (“BaFin”).

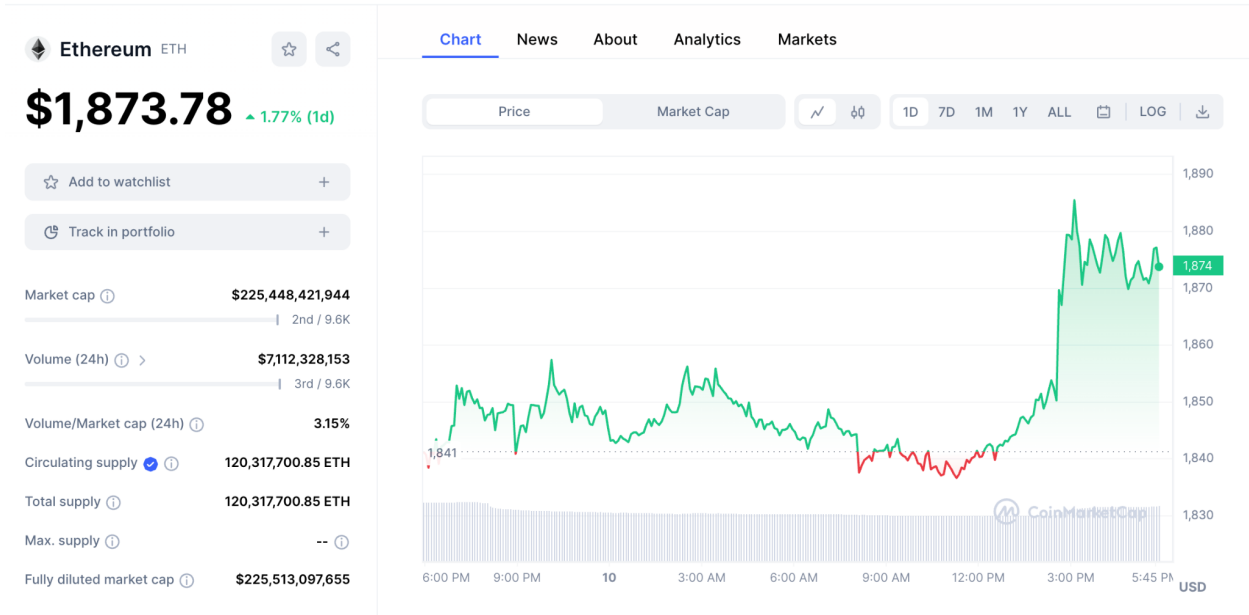
Each contract represents 10 Ether. At the current price of approximately \$1,800, the notional value of each Coinbase Derivatives contract would be approximately \$18,000. The Exchange will initially offer the four nearest contract months and the next December contract for trading.

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<sup>1</sup> [https://ycharts.com/indicators/ethereum\\_supply](https://ycharts.com/indicators/ethereum_supply)

<sup>2</sup> <https://investerest.vontobel.com/en-se/articles/13356/ether-explained---chapter-6-ethereum-vs-bitcoin-part-1/>

# Ethereum Price as of May 2, 2023



Source: <https://coinmarketcap.com/currencies/ethereum/>

### III. Volatility

In the past six months, the Ethereum Volatility Index has hovered around 2-4%, with the latest 30-day estimate at 2.22% as of May 10, 2023<sup>3</sup>. By way of comparison, the Crude Oil Volatility Index on May 2, 2023 stood at approximately 34.00<sup>4</sup>%, and the current CBOE Market Volatility Index was approximately 16.94%<sup>5</sup>. Spikes of volatility as well as time periods or prolonged volatility will be managed using risk controls to protect both market participants and the Exchange. Such controls include daily price limits, price banding, exposure limits, kill switches, and appropriate margin levels. All contracts are centrally cleared by Nodal clear, which has in place its own risk limits, offering further protection to market participants.



### IV. Analysis of Deliverable Supply

As stated above, the supply of ETH has no limit. As of May, 2023, the deliverable supply of ETH stands at approximately 117.84 million, and will continue to increase by a maximum of 18 million in each subsequent year<sup>6</sup>. The Exchange proposes a position limit of 400,000 Ether, which represents 0.34% of the current deliverable supply.

### V. Compliance with Core Principles

The Exchange has reviewed the designated contract market (“DCM”) core principles (“Core Principles”) set forth in the Commodity Exchange Act and has identified that the Contract may most directly implicate the following Core Principles:

<sup>3</sup> <https://www.buybitcoinworldwide.com/volatility-index/>

<sup>4</sup> <https://www.cnbc.com/quotes/.OVX>

<sup>5</sup> <https://www.marketwatch.com/investing/index/vix>

<sup>6</sup> [https://ycharts.com/indicators/ethereum\\_supply](https://ycharts.com/indicators/ethereum_supply)

### *Core Principle 2 -- Compliance with Rules*

Trading in the Contract is subject to the Exchange Rulebook (the “Rulebook”) including Chapter 5, which prohibits fraud, non-competitive trading, market manipulation and abusive and disruptive trade practices. Additionally, as with all contracts traded on the Exchange, trading will be subject to monitoring and surveillance by the Market Regulation Department, which has the authority to investigate and enforce Exchange rules, as described in Chapter 7.

### *Core Principle 3 -- Contracts Not Readily Subject to Manipulation*

The Contract is based on the MarketVector Coinbase Ethereum Benchmark Rate, which was first published on May 16, 2022. MarketVector Index Solutions GmbH (“MVIS”) is governed by the European Benchmark Regulation (the “EUBMR”) and supports the International Organisation of Securities Commissions (“IOSCO”) “Principles for Financial Benchmarks” (the “IOSCO Principles”). The Exchange has a data sharing agreement with the Coinbase spot market as well as a licensing agreement for the use of MVIS for the Exchange Contract. MVIS manages the governance and oversight of the Index, as described in Appendix A below. Given this oversight, the Index is not readily subject to manipulation.

### *Core Principle 4 -- Prevention of Market Disruption*

Chapter 5 of the Rulebook prohibits Participants from manipulating, distorting the price of, and disrupting the settlement process of the Contract. As with all contracts traded on the Exchange, trading in the Contract will be subject to monitoring and surveillance by the Market Regulation Department. Further, trading in the Contract shall be subject to price limits consistent with the U.S. equity market-wide circuit breakers. In addition, the Index Provider uses a methodology which makes potential manipulation of the underlying spot market unlikely to have an effect on the Index price.

### *Core Principle 5 -- Position Limits or Accountability*

The Contract shall be subject to a position limit of no more than 400,000 Ether per month, with a reportable level of 5 contracts.

### *Core Principle 7 -- Availability of General Information*

The Exchange shall publish on its website and in its Rulebook the specifications, terms and conditions of the Contract.

### *Core Principle 8 -- Daily Publication of Trading Information*

The Exchange shall publish on its website on a daily basis the trading volumes, open interest, and price information for the Contract.

### *Core Principle 9 -- Execution of Transactions*

The Contract shall be listed for trading on the Exchange’s trading system, which provides for efficient, competitive, and open execution of transactions.

### *Core Principle 10 -- Trade Information*

All requisite trade information shall be included in the audit trail and is sufficient for the Market Regulation Department to monitor for market abuse.

*Core Principle 11 -- Financial Integrity of Transactions*

The Contract shall be cleared by Nodal Clear, LLC, a CFTC registered derivatives clearing organization subject to the CFTC regulations related thereto.

*Core Principle 12 -- Protection of Markets and Market Participants*

Chapters 4 and 5 of the Rulebook require all market participants, including futures commission merchants (“FCMs”) carrying customer accounts, to observe high standards of integrity, market conduct, commercial honor, fair dealing, and just and equitable principles of trade and prohibits, among other things, fraud, non-competitive trading, market manipulation, and abusive and disruptive trade practices. As with all contracts traded on the Exchange, trading will be subject to monitoring and surveillance by the Market Regulation Department.

*Core Principle 13 -- Disciplinary Procedures*

Rulebook Chapter 7 sets forth the rules and procedures for the investigation, enforcement, and sanctioning of persons that violate the Exchange’s Rules.

*Core Principle 14 - Dispute Resolution*

Disputes related to the Contract are governed by Chapter 8 of the Exchange Rulebook, which provides for arbitration procedures overseen by the National Futures Association.

Certification

The Exchange has spoken with FCMs and market participants who support the decision to launch the Contract. The Exchange is not aware of any substantive opposing views to the Contract. The Exchange certifies that the Contract and related rules certified herein comply with the Commodity Exchange Act and the rules and regulations promulgated thereunder.

The Exchange certifies that this submission has been concurrently posted on the Exchange’s website at: <https://www.coinbase.com/derivatives>.

If you have any questions or require any further information, please contact me at [jane.downey@coinbase.com](mailto:jane.downey@coinbase.com).

Sincerely,

/s/

Jane Downey  
Chief Regulatory Officer

Attachments:

- Appendix A MarketVector Coinbase Ethereum Benchmark Rate Index Methodology
- Appendix B Amendments to CDE Rulebook Chapter 11
- Appendix C Position Limit, Position Accountability, and Reportable Level Table (CDE Rulebook Chapter 5)

## APPENDIX A

### Market Vector Coinbase Ethereum Benchmark Rate Contract Methodology

#### Description

The Market Vector Coinbase Ethereum Benchmark Rate contract (“Contract”, “CETBR”)<sup>7</sup> is produced by Market Vector Indexes of Frankfurt, Germany, an affiliate of Van Eck Associates Corporation (“MVI”). The Contract is calculated and disseminated in USD and tracks the price of Ether as traded on the Coinbase spot exchange.

#### How the Constituent Exchanges are Chosen

The governance and organizational structure of MVI includes the Advisory Board, the Independent Oversight Function, the Management Board of MVI and its employees and their specific participants, roles and responsibilities.

#### Advisory Board

The MVI Advisory Board is governed by the Rules of Procedure for the Advisory Board. The Advisory Board is responsible to supervise and advise the Managing Directors of MV. The approval of the Advisory Board is required for certain important decisions.

#### Independent Oversight Function

MVI has implemented an Independent Oversight Function (“IOF”) that consists of employees of the Legal and Compliance department of VanEck (Europe) GmbH. Some of the key task and responsibilities of the IOF are:

- Periodic review of the Index Guide and Methodology;
- Review and approval of the procedures for index cessation;
- Oversee third parties involved in the provision of the indices, including calculation or dissemination agents;
- Assess internal and external audits or reviews, and monitor the implementation of identified remedial actions; and
- Monitor input data and contributors and MVI’s related actions in challenging or validating contributions of input data.

#### Managing Directors

MVI has two Managing Directors (MD), the Operations and the Shared Services MD. The roles and responsibilities of the two different MDs are documented and serve to ensure mitigation of conflicts of interest and enhance governance standards. The Managing Directors are responsible for the ongoing review and monitoring of compliance with MVI’s policies and procedures by all involved parties and the notification of possible breaches or incidents to the IOF.

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<sup>7</sup> <https://www.mvis-indices.com/indices/digital-assets/mvis-cryptocompare-bitcoin-benchmark-rate>



## The MVIS Ethereum Benchmark Rate Index is not Subject to Manipulation

The index is calculated as an average of 1-hour quantity weighted median prices, which are calculated for 20 3-minute intervals. The Contract price is determined by using a median price, which filters out any prices that might be considered outliers, either high or low.

$$Index\ Value = \frac{1}{n} \sum_{i=1}^n M(i).$$

where the quantity weighted median price for each interval  $i$  is

$$M(i) = \begin{cases} p_{i,k} & \text{if } k \text{ satisfies } \sum_{j=1}^{k-1} q_{i,j} < \frac{1}{2} \sum_{j=1}^{J_i} q_{i,j} \text{ and } \sum_{j=k+1}^{J_i} q_{i,j} \leq \frac{1}{2} \sum_{j=1}^{J_i} q_{i,j}, \\ p_{i,1} & \text{if } q_{i,1} \geq \frac{1}{2} \sum_{j=1}^{J_i} q_{i,j}, \\ \frac{p_{i,k} + p_{i,k+1}}{2} & \text{if } \sum_{j=k+1}^{J_i} q_{i,j} = \frac{1}{2} \sum_{j=1}^{J_i} q_{i,j}, \end{cases}$$

with the number of intervals calculated as the total index time window divided by the interval window:

$$n = \frac{T}{b},$$

and

- $p_{i,j}$  =  $j$ th price in  $i$ th interval,
- $q_{i,j}$  =  $j$ th quantity/volume traded in  $i$ th interval,
- $J_i$  = number of trades in  $i$ th interval,
- $b$  = interval window for the calculation of the median prices,
- $n$  = number of intervals,
- $T$  = total index time window for the calculation of an index price.

The set of trades for the total index calculation consists of transactions occurring within the total index time window as follows:

$$\theta_t = \{a_{i,j}(s_{i,j}, p_{i,j}, q_{i,j}) | t - T \leq s < t\},$$

with

- $\theta_t$  = set of trades for the calculation of the index price at time  $t$ ,
- $a_{i,j}$  = trade  $j$  in trade set  $A_i$ ,
- $s_{i,j}$  = time of trade  $a_{i,j}$ .

Each interval consists of a subset of trades of  $\theta_t$ :

$$A_i \subset \theta_t$$

$A_i$  being the set of trades for the calculation of the median price in interval  $i$ , where each trade  $a_{i,j}$  within  $A_i$  is sorted by price  $p_{i,j}$  in ascending order and it holds that trades occur within the interval window as follows:

$$A_i = \{a_{i,j}(s_{i,j}, p_{i,j}, q_{i,j}) | (t - T) + (i - 1)b \leq s < (t - T) + ib\}.$$

Due to the sheer number of times the price is recalculated, and the use of median prices, any attempt to manipulate the price of the index would be extremely difficult. In addition to the calculation safeguards, MVI has procedures in place to prevent manipulation, MVI has a number of policies and procedures in place to ensure a fair marketplace. MVI has instituted measures to investigate and correct a potentially erroneous price due to bad data, late or delayed transactions and non-reporting exchanges. Incorrect or missing data is corrected immediately.

Disruptions with calculation agents are handled by Compliance and Senior Management at MVI. MVI will communicate any error to all affected clients. In addition, if MVI identifies any conduct that may involve manipulation of an index by calculation/dissemination agent, it will report this to its regulator, BaFin.

#### How Settlement is Calculated

During the 1-hour settlement window, MVI breaks the hour into 20 3-minute intervals. In each of these intervals, MVI aggregates all trades and volume from the Coinbase spot exchange and calculates a volume weighted median price for the interval. The settlement is based on a simple average of the 20 volume weighted median prices calculated.

## APPENDIX B

Additions underscored; deletion are ~~struckthrough~~

### CHAPTER 11: CONTRACTS

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#### **RULE 1109. Ether Futures**

- (a) Scope. Rule 1109 is limited in application to the trading of the Ethereum futures (“ETI Contract”). In addition to Rule 1109, the ETI Contract is subject to all Rules of the Exchange as applicable. Unless otherwise stated, all times referred to herein are Central Time Zone.
- (b) Trading Schedule. The ETI Contract shall be offered for monthly trading in the front four months and the following December contract month during such hours as the Exchange shall determine from time-to-time.
- (c) Trading Unit. The trading unit is equal to 10 Ether.
- (d) Price Increments. The minimum price increment shall be 0.5 index points (\$5 per Contract).
- (e) Position Limits, Position Accountability, and Reportable Levels. Pursuant to Rules 530 to 533 and subject to the requirements and exceptions therein, the ETI Contract is subject to the following:
  - (1) Position Limit. 40,000 ETI aggregate
  - (2) Reportable Level. 5 ETI Contracts
- (f) Price Fluctuation Limits. Trading in the ETI Contract shall be subject to the following price fluctuation limits of
  - (1) 10% of the Hourly Calculated Reference Price at the top of each hour.
  - (2) Reference Price is calculated by using the settlement calculation from the last 60 seconds of each hour. A 10% up and down Price Limit will be applied to the Reference Price.
  - (3) The market will enter a Halt state for 2 minutes if a Price Limit is reached. Orders can be submitted, canceled and amended during this state but no matching will occur.
  - (4) The new Reference Price will be the last Price Limit reached.
  - (5) If Price Limits are hit on the Lead Month Contract, all related instruments will be Halted.
  - (6) If Price Limits are hit on non-Lead Month Contracts, only the specific instrument which reached the Price Limit will be Halted.

- (g) Daily Price Limits. Trading in the ETI Contract shall be subject to the following Daily Price Limits of
- (1) 30% Daily Price Limits will be applied from the previous day's settlement price and applied to the next trading session.
  - (2) If Daily Price Limits are reached the market will remain open but will not trade beyond the Daily Price Limit.
- (h) Trading terminates at 4:00 pm London time on the last Friday of the contract month. If that day is not a U.S. business day, trading terminates on the preceding day that is a U.S. business day.
- (i) Settlement. The ETI Contract is cash settled
- (1) Daily Settlement Price at 3:00 PM CT shall be determined as follows:
    - (i) 1-min VWAP of futures contract rounded to the nearest tradable tick
    - (ii) 1-min TWAP of futures contract midpoint of the Bid/Ask rounded to the nearest tradable tick
    - (iii) If a two-sided market is not available during the sixty (60) seconds prior to 3:00 PM CT, then the Settlement Price will be Market Vector CBBR index value - (difference between previous day's CBBR index value and previous day's futures settlement)
  - (2) Final Settlement Price shall be the value of the underlying index at 4 p.m. London Time on the day of expiration, calculated and disseminated by MVIS as the Index Provider and calculation agent.
  - (3) Final Settlement. Clearing Firms holding open positions in an expiring ETI Contract at the termination of trading shall make or receive payment in accordance with the rules of the Clearing House.
- (j) Disclaimer.

The MarketVector Index Solutions Coinbase Ethereum Benchmark rate is a trademark of MarketVector Index Solutions and its affiliates (collectively "MVIS"). MVIS or MVIS's licensors own all proprietary rights in the Indices. MVIS is NOT affiliated with LMX Labs, and neither approves, endorses, reviews or recommends the Ether Futures. MVIS does not guarantee the timeliness, accurateness or completeness of any data or information relating to the Coinbase Ethereum Benchmark Rate Index, and neither shall be liable in any way to LMX Labs, investors in the Ether (ETI) futures or other third parties in respect of the use or accuracy of the Coinbase Ethereum Benchmark Rate Index or any data included therein.

## APPENDIX C

Additions underscored; deletion are ~~struckthrough~~

### CHAPTER 5: TRADING PRACTICES AND BUSINESS CONDUCT

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#### RULE 533. Position Limit, Position Accountability, Reportable Level, and Volume Threshold Level Table

Product	CDE Code	Contract Size	Aggregate Into Futures	<u>Aggregate Ratio</u>	CFTC Reporting Limit	Exchange Reporting Limit	Position Limit
Nano Bitcoin Futures	BIT	0.01	BTI	<u>100 BIT = 1 BTI</u>	25	25	20,000 ( <u>BTI Aggregate</u> )
<del>Bitcoin Futures</del>	<del>BTI</del>	<del>1</del>	<del>BTI</del>		<del>25</del>	<del>25</del>	
Nano Ether Futures	ET	0.1	ETI	<u>100 ET = 1 ETI</u>	25	25	40,000 ( <u>ETI Aggregate</u> )
<del>Ether Futures</del>	<del>ETI</del>	<del>10</del>	<del>ETI</del>		<del>25</del>	<del>25</del>	
Nano Bloomberg US Large Cap Index Futures	B5	100	B5		200	200	60,000
Micro Bloomberg US Large Cap Index Futures	LB5	10	LB5		200	200	25,000
Nano SuperTech Index Futures	TEC	100	TEC		200	200	60,000
Micro SuperTech Index Futures	LTEC	10	LTEC		200	200	25,000
Micro Crude Oil Futures	OIL	100	OIL		350	350	5,000