

# coinbase DERIVATIVES

June 28, 2024

## VIA CFTC 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 Polkadot Futures Contract**

Dear Mr. Kirkpatrick:

Pursuant to Commodity Futures Trading Commission (“CFTC” or “Commission”) Regulation 40.2(a), Coinbase Derivatives, LLC (the “Exchange” or “COIN”) hereby submits for self-certification its initial listing of the Polkadot Futures contract to be offered for trading on the Exchange on or after July 15, 2024.

### Contract Description

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

<b>Product</b>	Polkadot Futures
<b>Product Type</b>	USD-settled index future
<b>Contract Size</b>	100 Polkadot
<b>Displayed Price Example</b>	\$6.001
<b>Contract Notional</b>	~\$600.00 Contract notional (i.e. ~\$6 x 100)
<b>Contract Code</b>	DOT
<b>Minimum Tick Size and Value</b>	<b>Min tick size:</b> \$0.001 per Polkadot <b>Min tick value:</b> \$0.10 per Contract
<b>Listed Contracts</b>	3 nearest 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 Polkadot index value - (difference between previous day's index value and previous day's futures settlement)

<b>Final Settlement</b>	<p>Final settlement price of the expiring Contract will be the value of the Market Vector Coinbase Polkadot benchmark reference rate at 4:00 PM London time, calculated and disseminated by Market Vector. Contracts will be cleared by Nodal Clear.</p> <p>The index value is determined using a 2-hour settlement window, MVIS breaks the period into 40 3-minute intervals. In each of these intervals, MVIS aggregates all trades and volume from the constituent exchange and calculates a volume weighted median price for the interval. The settlement is based on a simple average of the 40 volume weighted median prices calculated.</p> <p>Should any abnormal activity occur during the settlement window, any combination of the following measures will be considered:</p> <ol style="list-style-type: none"> <li>1. Should the index provider detect an abnormal price during the settlement window, the price shall be removed from the calculation</li> <li>2. Should the Coinbase Derivatives Command Center determine the settlement price is not representative of the market, it will manually settle the Contract using sources of historical data and prices on other exchanges and indexes.</li> </ol>
<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>	7,500 DOT Futures
<b>Large Trader Reporting</b>	25 contracts
<b>Trading Hours</b>	5:00 - 4:00 PM CT Sunday - Friday, with a trading halt from 4:00 PM - 5:00 PM CT Monday - Thursday.

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## I. Polkadot Market Overview

Polkadot is a next-generation blockchain protocol designed to enable the seamless transfer of data and assets across different blockchains. Launched in May 2020 by the Web3 Foundation, Polkadot was created by Dr. Gavin Wood, one of the co-founders of Ethereum. The primary goal of Polkadot is to facilitate a fully decentralized web where users are in control, while also solving some of the key challenges faced by earlier blockchain networks, such as scalability, interoperability, and governance.

At the core of Polkadot's architecture is its unique multi-chain framework, which allows multiple blockchains, known as "parachains," to operate in parallel and communicate with each other. This is enabled by the Relay Chain, the central chain that provides security, consensus, and interoperability for the entire network. Parachains are customizable, independent blockchains that can be optimized for various use cases and are connected to the Relay Chain for security and cross-chain functionality.

Polkadot uses a sophisticated consensus mechanism known as Nominated Proof-of-Stake (NPoS). This system involves two main roles: validators and nominators. Validators are responsible for securing the network by validating transactions and producing new blocks, while nominators support the network by selecting trustworthy validators. Both validators and nominators are incentivized through the Polkadot token, which is used for staking, governance, and bonding parachains to the Relay Chain.

The Polkadot token serves several essential functions within the Polkadot ecosystem. It is used for staking, which helps secure the network and enables participants to earn rewards. Polkadot is also a governance token, granting holders the ability to propose and vote on changes to the network's protocol. Additionally, Polkadot is used for bonding, which is the process of connecting parachains to the Relay Chain, ensuring that they remain operational and secure.

Polkadot's on-chain governance model is designed to be highly decentralized and transparent, allowing the community to have a significant say in the network's development and upgrades. This governance system includes features like referendums and a council, which work together to propose, discuss, and implement changes to the protocol.

One of Polkadot's standout features is its ability to achieve true interoperability between different blockchains. This cross-chain functionality enables data and assets to be transferred seamlessly between parachains and other external networks, fostering a more interconnected and efficient blockchain ecosystem. Polkadot's interoperability is further enhanced by bridges, which connect the network to other blockchain platforms like Ethereum and Bitcoin, expanding its reach and utility.

Polkadot's innovative technology and ambitious vision have led to significant adoption and development activity within its ecosystem. Numerous projects and applications are being built on Polkadot, ranging from decentralized finance (DeFi) platforms to non-fungible token (NFT) marketplaces and beyond. This vibrant and growing ecosystem is supported by a strong community of developers, researchers, and enthusiasts dedicated to advancing the platform's capabilities and achieving its vision of a decentralized web.

## II. Contract Description

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

Each Contract represents 100 Polkadot. The Exchange will initially offer the three front months of the Contract for trading.

### III. Volatility

Polkadot is considered a moderately volatile asset. Several factors contribute to its volatility, including its relatively lower market cap and its innovative but still maturing technology aimed at enabling cross-blockchain transfers of any type of data or asset. Since the start of 2022, the 30-day trailing standard deviation of daily price changes for Polkadot has averaged 4.3%. Volatility spikes occur periodically, similar to other blockchain platforms such as Bitcoin and Ethereum.

While Polkadot's price action is somewhat volatile due to the factors mentioned above, the Exchange has managed both periods of prolonged volatility and unexpected spikes in volatility in its existing products without market interruptions and with ample continuous liquidity. The Exchange is prepared to deploy its proven risk controls, applied to all of its listed products, including daily price limits, price banding, exposure limits, kill switches, and margin levels that appropriately reflect the volatility of Polkadot.

Polkadot's current 30D volatility is approximately 3.1%. Under comparable timeframes, other commodities have experienced realized volatility levels that are in line with Polkadot's realized volatility. For reference, current Bitcoin and Ethereum 30D volatility are around 1.5%.

Since launch, the Exchange has had multiple instances of successful management of high volatility environments in its existing commodity contracts, as Bitcoin volatility was above 4% and Oil volatility was above 5% in 2022.

### IV. Analysis of Deliverable Supply

Polkadot was created without a supply cap. There are 1.4B Polkadot tokens currently in circulation, which represent the deliverable supply.

Given that each COIN Polkadot cash-settled Contract represents 100 Polkadot, a single Contract is <0.00001% of the deliverable supply.

To set position limits, the Exchange will be referencing the position limits to market cap ratio for existing crypto currency futures such as its Bitcoin contracts and adjusting downwards.

The Exchange will set the position limit to 7,500 DOT futures, which is equivalent to 750,000 Polkadot. With a \$6 price of Polkadot, this is equal to \$4.6M notional, which would be 0.05% of the Polkadot market cap, currently at \$8.8B.

As a comparison, COIN Bitcoin Futures position limits are currently 0.10% of the Bitcoin market cap. The proposed DOT position limits would be 50% lower as a percentage of the underlying asset's market cap.

### 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:

#### *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 Polkadot future is based on the Market Vector Coinbase Polkadot Benchmark Rate, which will be published starting in July 2024. MV 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). COIN has a licensing agreement for the use of Market Vector for Coinbase Polkadot futures. Market Vector manages the governance and oversight of the Index, as described in Appendix A below. COIN has signed an information sharing agreement with Coinbase, Inc. to allow the Exchange to request spot market data when necessary. Given that the Polkadot token is traded on multiple exchanges both in the United States and abroad, and the manner in which the Index is calculated, it would be difficult, if not impossible, to manipulate the price of the underlying market in a way that would affect the futures Contract. In addition Coinbase, Inc. has in place an experienced surveillance team and policies and procedures to detect suspected manipulation in the spot market. 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 fluctuation limits. 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 7,500 Polkadot futures, or 750,000 Polkadot, with a reportable level of 25 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 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 a Polkadot 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: [www.coinbase.com/derivatives](http://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 Market Vector Coinbase Polkadot Benchmark Rate Index Methodology
- Appendix B Amendments to COIN Rulebook Chapter 11
- Appendix C Amendments to COIN Rulebook Chapter 5

## APPENDIX A

### Market Vector Coinbase Polkadot Benchmark Rate Index Methodology

The Market Vector Coinbase Polkadot Benchmark Rate (“Index”) is produced by Market Vector Indexes of Frankfurt, Germany, an affiliate of Van Eck Associates Corporation (“MVIS”). The Index is calculated and disseminated in USD and tracks the price of Polkadot as traded on the Coinbase, Inc. spot exchange.

#### Advisory Board

The MVIS 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

MVIS 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

MVIS 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 MVIS’ policies and procedures by all involved parties and the notification of possible breaches or incidents to the IOF.



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

The Index is calculated as an average of 2-hour quantity weighted median prices, which are calculated for 40 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.

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

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, MVIS has a number of policies and procedures in place to ensure a fair marketplace. MVIS 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 MVIS. MVIS will communicate any error to all affected clients. In addition, if MVIS identifies any conduct that may involve manipulation of an index by calculation/dissemination agent, it will report this to its regulator, BaFin.

The Exchange has in place an agreement with Coinbase, Inc. to share information and trade data occurring on Coinbase, Inc. in connection with regulatory inquiries. This agreement gives the Exchange the opportunity to investigate activity in the spot market which may have an impact on the listed futures Contract.

#### How Settlement is Calculated

During the 2-hour settlement window, MVIS breaks the hour into 40 3-minute intervals. In each of these intervals, MVIS aggregates all trades and volume from the Coinbase, Inc. spot exchange and calculates a volume weighted median price for the interval. The settlement is based on a simple average of the 40 volume weighted median prices calculated.

## APPENDIX B

Additions underscored; deletion are ~~struckthrough~~

### CHAPTER 11: CONTRACTS

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#### **RULE 1113. Polkadot Futures**

- (a) Scope. Rule 1113 is limited in application to the trading of the Polkadot futures (“DOT Contract”). In addition to Rule 1113, the Polkadot Contract is subject to all Rules of the Exchange as applicable. Unless otherwise stated, all times referred to herein are Central Time Zone. The relevant index for the DOT Contract is the MarketVector™ Coinbase Polkadot Benchmark Rate (“Index”), as calculated and disseminated by MarketVector Indexes GmbH as the index provider and calculation agent (the “Index Provider”).
- (b) Trading Schedule. The Polkadot Contract shall be offered for monthly trading in the front three (3) months during such hours as the Exchange shall determine from time-to-time.
- (c) Contract Size. The Contract size is equal to the price of 100 Polkadot.
- (d) Price Increments. The minimum price increment shall be 0.001 Index points (\$0.10 DOT Contract).
- (e) Position Limits, Position Accountability, and Reportable Levels. Pursuant to Rules 530 to 533 and subject to the requirements and exceptions therein, the Polkadot Contract is subject to the following:
  - (1) Position Limit. 7,500 DOT Contracts.
  - (2) Reportable Level. 25 DOT Contracts.
- (f) Price Fluctuation Limits. Trading in the DOT Contract shall be subject to price fluctuation limits. If a price fluctuation limit is reached on the lead month of DOT Contract, all related instruments will be halted. If a price fluctuation limit is reached on the non-lead month DOT Contracts, only the specific instrument which reached the price fluctuation limit will be halted.
  - (1) Each hour, a Reference Price is calculated for each Contract using the Lead Month settlement procedures outlined in Rule 906(b)(ii)(1) (the “Reference Price”).
  - (2) A 10% up and down price limit will be applied to that Contract’s Reference Price.
  - (3) The market will enter a halt state for two (2) minutes if a price fluctuation limit is reached. Orders can be submitted, canceled, and amended during this state but no matching will occur.
  - (4) If a price fluctuation limit is reached, the new Reference Price will be the last price fluctuation limit for the remainder of that hour.

- (g) Termination of Trading and Expiration. Trading terminates at 4:00 PM London time on the last Friday of the Contract month. If that day is not a Business Day, trading terminates on the preceding day that is a Business Day (“Termination of Trading”). Expiration will occur the same Business Day as the Termination of Trading for the Contract.
- (h) Settlement. The DOT Contract is cash settled.
- (1) Daily Settlement Price of the Contract, which is an Exchange Futures Contract based on a crypto currency, will be determined pursuant to the process set forth in Exchange Rule 906(b)(ii).
  - (2) On the day of expiration, the Final Settlement of the Contract, which is an Exchange Futures Contract based on a crypto currency, will be determined pursuant to the process set forth in Exchange Rule 906(c)(ii).
  - (3) Final Settlement. Clearing Firms holding open positions in an expiring DOT Contract at the Termination of Trading shall make or receive payment in accordance with the rules of the Clearing House.
- (i) Forks. In the event of a hard fork, the DOT Contract will settle to the Index. The Exchange may, in its sole discretion, take alternative action with respect to hard forks in consultation with its Index Provider, its Clearing House and its market Participants.
- (j) Disclaimer.

The MarketVector™ Coinbase Polkadot Benchmark Rate is a trademark of MarketVector Indexes GmbH and its affiliates (collectively “MarketVector”). MarketVector or MarketVector’s licensors own all proprietary rights in the MarketVector™ Coinbase Polkadot Benchmark Rate. MarketVector is NOT affiliated with Coinbase Derivatives, LLC, and neither approves, endorses, reviews or recommends the DOT Contract. MarketVector does not guarantee the timeliness, accurateness or completeness of any data or information relating to the MarketVector™ Coinbase Polkadot Benchmark Rate, and neither shall be liable in any way to Coinbase Derivatives, LLC, investors in the DOT Contract or other third parties in respect of the use or accuracy of the MarketVector™ Coinbase Polkadot Benchmark Rate 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**

The reportable levels for all Contracts covering Position Limit, Position Accountability, Reportable Level, and Volume Thresholds will be made available to Market Participants.

Product	CDE Code	Contract Size	Aggregate Into Futures	Aggregate Ratio	Exchange Reporting Level	Position Limit
Nano Bitcoin Futures	BIT	0.01	BTI	100 BIT = 1 BTI	25	20,000 (BTI Aggregate)
Bitcoin Futures	BTI	1	BTI	N/A	25	
Nano Ether Futures	ET	0.1	ETI	100 ET = 1 ETI	25	40,000 (ETI Aggregate)
Ether Futures	ETI	10	ETI	N/A	25	
Bitcoin Cash Futures	BCH	1	BCH	N/A	25	14,000
Litecoin Futures	LC	5	LC	N/A	25	10,000
Dogecoin Futures	DOG	5,000	DOG	N/A	25	20,000
<u>Polkadot Futures</u>	<u>DOT</u>	<u>100</u>	<u>DOT</u>	<u>N/A</u>	<u>25</u>	<u>7,500</u>
Gold Futures	GOL	1	GOL	N/A	200	600,000
nano Crude Oil Futures	NOL	10	OIL	10 NOL = 1 OIL	350	40,000 three (3) days prior to the end of trading in the spot month
Micro Crude Oil Futures	OIL	100	OIL	N/A	350	40,000 three (3) days prior to the end of trading in the spot month