

# **CoinDesk Select Sector Indices Methodology**

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# **Table of Contents**

J	oinDesk Select Sector Indices Methodology	1
	Introduction	3
	Index Objective	3
	Additional Details	3
	Eligibility criteria	4
	Universe Eligibility	4
	Index Construction	4
	Constituent Selection	4
	Constituent Weighting	6
	Circulating Supply	7
	Index Calculation	7
	Constituent pricing	7
	Calculation Formula	7
	Index Maintenance	7
	Index Reconstitution	8
	Deletions	8
	Additions	8
	DACS Sector Reclassification	g
	Watchlist	9
	Data Distribution	9
	Index Governance	9
	Appendix 1: Data sources	10
	Appendix 2: CoinDesk Smart Contract Platform Select Ex ETH Index	11
	Appendix 3: CoinDesk Currency Select Ex Bitcoin Index	12
	Appendix 4: CoinDesk Market Select Index	13
	Appendix 5: Methodology Changes	14
	Appendix 6: Document Revision History	15
	Disclaimer	16

## Introduction

## **Index Objective**

The CoinDesk Select Sector Index series are designed to measure the market-capitalization weighted performance of some of the largest and most liquid digital assets classified in eligible DACS sectors that meet certain trading and custody requirements.

## **Additional Details**

The CoinDesk Select Sector Index series (the "Indices") are based on the Digital Asset Classification Standard (DACS). Constituents of each index must be included in DACS and assigned to the appropriate Sector. For more information on DACS please refer to the DACS Methodology.

This methodology was created by CoinDesk Indices ("CDI") to achieve the Index Objective stated above. There may be circumstances or market events which require CDI, in its sole discretion, to deviate from these rules to ensure each Index continues to meet its Index Objective. This document should be read in conjunction with the CoinDesk Digital Asset Indices Policy Methodology.

Table 1 provides the list of indices as determined by CoinDesk Indices. This list may expand in the future at the discretion of CDI.

**Table 1: List of Indices** 

Index Name	Index Ticker	Launch Date	Base Date	Base Value
CoinDesk Smart Contract Platform Select Index	SCPX	03/15/2022	03/10/2022	1000.00
CoinDesk Smart Contract Platform Select Ex ETH Index	SCPXX	03/15/2022	03/10/2022	1000.00
CoinDesk DeFi Select Index	DFX	07/19/2021	05/10/2021	1000.00
CoinDesk Currency Select Index	CCYS	08/30/2022	07/18/2022	1000.00
CoinDesk Currency Select Ex Bitcoin Index	CCYX	08/30/2022	07/18/2022	1000.00
CoinDesk Computing Select Index	CPUS	08/30/2022	07/18/2022	1000.00
CoinDesk Culture & Entertainment Select Index	CNES	08/30/2022	07/18/2022	1000.00
CoinDesk Market Select Index	CMIS	12/22/2022	07/18/2022	1000.00

# Eligibility criteria

## **Universe Eligibility**

To be included in an Index Universe, a digital asset must meet the following criteria as of the Reconstitution Reference Date:

- 1. The digital asset must be included in the most recently published DACS report and assigned to the appropriate DACS Sector as defined in Table 2.
- Custodian services for the digital asset must be available from Coinbase Custody, a division of Coinbase Global Inc. and the digital asset must be accessible by U.S. investors.
- 3. The digital asset must not be categorized as a meme coin as determined by CDI.
- 4. The digital asset must have traded on at least one Eligible Exchange within the last 30 days up to and including the Reconstitution Reference Date. For details on Eligible Exchanges, refer to the CoinDesk Digital Asset Indices Policy Methodology.

**Table 2: DACS Sector Eligibility** 

Index Name	DACS Sector Name	
CoinDesk Smart Contract Platform Select Index	Smart Contract Platform	
CoinDesk DeFi Select Index	Decentralized Finance ("DeFi")	
CoinDesk Computing Select Index	Computing	
CoinDesk Currency Select Index	Currency	
CoinDesk Culture & Entertainment Select Index	Culture & Entertainment	

## **Index Construction**

## **Constituent Selection**

The constituent selection process targets the largest and most liquid digital assets from the Selection Universe subject to a final constituent count between 5 and 10 inclusive, and buffer rules designed to reduce unnecessary turnover.

All digital assets that pass the *Eligibility Criteria* will be ranked by market capitalization, as of the Reconstitution Reference Date, in descending order. The 20 highest ranked digital assets that meet the Eligibility Criteria form the Selection Universe.

Constituents will be selected from the Selection Universe as follows:

- For each digital asset in the Selection Universe, calculate the Median Daily Value Traded (MDVT) across eligible exchanges over the previous 30-day calendar period leading up to and including the Reconstitution Reference Date.
- 2. For each digital asset in the Selection Universe, determine the closing market capitalization as of the Reconstitution Reference Date.
- 3. Based on the results from Step 1 and Step 2, the market cap and liquidity requirements are determined as follows:
  - Non-Constituent Liquidity Requirement = 1.20 times the median MDVT of the Selection Universe
  - b. Non-Constituent Market Cap Requirement = 1.20 times the median closing market cap of the Selection Universe.
  - c. Constituent Liquidity Requirement = median MDVT of the Selection Universe
  - d. Constituent Market Cap Requirement = median closing market cap of the Selection Universe
- 4. Following the determination of the market cap and liquidity requirements, all digital assets that do not meet all of the following criteria as of the reconstitution reference date will be considered ineligible and, therefore, removed from the Selection Universe:
  - Must be a constituent of the CoinDesk Market Index ("CMI"). For more information on the CMI, please refer to the CoinDesk Market Index Methodology.
  - b. Must be supported by a CoinDesk Reference Rate with 3 contributing exchanges.
  - c. Must be included on the Watchlist (as determined during the last reconstitution).
- 5. All digital assets in the Selection Universe following Step 4 that were included in the Watchlist will be evaluated against the Non-Constituent Liquidity and Non-Constituent Market Cap Requirements. All current constituents in the Selection Universe will be evaluated against the Constituent Liquidity and Constituent Market Cap Requirements. Digital assets that meet or exceed these requirements will be selected as index constituents (see Table 3). Based on the following results:
  - a. If fewer than 6 digital assets are selected, the market cap and liquidity requirements for non-constituents will be relaxed to the requirements for constituents (Note: the digital asset must be included on the Watchlist and in the Selection Universe to be selected).
  - b. If more than 10 digital assets are selected, the digital asset(s) with the smallest market cap will be removed until 10 digital assets remain.
- 6. If Step 5 results in at least 5 digital assets selected as constituents, the selection process is complete. Otherwise, the market cap and liquidity requirements will be relaxed for constituents and non-constituents until a minimum of 5 constituents are selected. If there are fewer than 5 constituents in the Selection Universe, all

digital assets in the Selection Universe will be selected and the constituent count will drop below the minimum of 5.

The Index Committee will review the constituent selection results if the market cap and liquidity criteria need to be relaxed.

**Table 3: Selection Requirement:** 

Requirement for Inclusion	Non-Constituents	Constituents
Included in Selection Universe	Yes	Yes
Included on latest Watchlist	Yes	No
Minimum Markets Test	3 eligible exchanges	3 eligible exchanges
Closing Market Cap	>= median Market Cap of the Selection Universe * 1.20	>= median Market Cap of the Selection Universe
30-day Median Daily Value Traded (MDVT)	>= median 30-day MDVT of the Selection Universe * 1.20	>= median 30-day MDVT of the Selection Universe

## **Constituent Weighting**

Constituents are market capitalization weighted subject to a minimum weight requirement of one percent. The following process is used to weight constituents at each reconstitution:

- Determine the preliminary weights of each digital asset selected based on its market capitalization as a percentage of the total market capitalization of all digital assets selected.
- 2. Rank all digital assets from Step 1 in descending order based on the preliminary weight.
- 3. To minimize unnecessary turnover, the Minimum Weight Requirement for all current constituents (non-constituents) is 0.80 (1.0) percent respectively. The preliminary weights from Step 2 will be reviewed against the Minimum Weight Requirement.
- 4. If the preliminary weight of any digital asset from Step 2 is below the applicable Minimum Weight Requirement determined in Step 3 and there are more than 5 digital asset constituents, the following iterative steps are performed:
  - a. Remove the lowest ranked digital asset and redistribute its weights proportionally to all remaining digital assets.
  - b. Repeat Step 4 if the weight of any remaining digital asset is below the applicable Minimum Weight Requirement <u>and</u> there are more than 5 digital asset constituents.
- 5. The results determined in Step 4 will be the final constituents and weights.

## **Circulating Supply**

At each reconstitution, the circulating supply for each constituent is determined based on the latest circulating supply on the Weighing Reference Date (see Index Maintenance). The circulating supply is not updated between reconstitutions.

## **Index Calculation**

The indices are calculated in real-time using reference rates for each underlying constituent as described below.

## **Constituent pricing**

Reference Rates for constituent digital assets are calculated approximately every 5 seconds by CDI using a volume weighted average price (VWAP) across three contributing exchanges over the prior 60 minutes. These reference rates are referred to as Settlement Reference Rates in the CoinDesk Reference Rate Methodology.

The number of contributing exchanges may drop below three between reconstitutions. In the event the number of contributing exchanges drops below three between reconstitutions, the Index Committee will review the eligible exchanges at the end of the month to determine the appropriate course of action.

#### **Calculation Formula**

$$Index_t = Index_{PR} * (1 + \sum_{i=1}^{N} W_{i,PR} * (\frac{Constituent\ Price_{i,t}}{Constituent\ Price_{i,PR}} - 1))$$

where:

 $Index_t = Index Value at time t$ 

 $Index_{PR} = Index \ Value \ as \ of \ prior \ reconstitution \ effective \ date$ 

 $W_{i,PR}$  = Weight of constituent i as of prior reconstitution effective date

*N* = number of constituents

Constituent Price<sub>i,t</sub> = Reference Rate for constituent i at time t

Constituent Price<sub>i,PR</sub> = Reference Rate for constituent i as of prior reconstitution effective date<sup>1</sup>

## **Index Maintenance**

<sup>&</sup>lt;sup>1</sup> Reference prices used to reconstitute the Indices are based on the last calculated value prior to 16:00 Eastern Time.

#### **Index Reconstitution**

Each index is reviewed on a quarterly basis based on the rules described above. Any index changes resulting from the quarterly review are announced two weeks prior to the effective date and implemented on the second business day of January, April, July and October. Please see Table 4 for the reconstitution timing.

**Table 4: Reconstitution Timing** 

Activity Description	Timing	Example Reconstitution Timing
Reconstitution Reference Date	Announcement Date minus 2 business days	12/19/2022
Announcement Date	Effective Date minus 14 calendar days (following business day if this is a holiday)	12/21/2022
Lock-down Circulating Supply (Weighting Reference Date)	Effective Date minus 7 calendar days (following business day if this is a holiday)	12/28/2022
Effective Date	4PM Eastern Time on the 2 <sup>nd</sup> business day of the start of each quarter	01/04/2023

In addition to the quarterly process, constituents are monitored for potential anomalies and trading disruptions. Out-of-review monitoring, which would require an index modification, only applies in extraordinary circumstances. Incident types that would require one or more index modifications are outlined in the CoinDesk Digital Asset Indices Policy Methodology.

## **Deletions**

If a constituent is removed from an index outside of the scheduled reconstitution process it will not be replaced. The weight of the constituent being removed will be redistributed proportionally to all remaining constituents as of the effective date of removal.

The impacted constituent will be considered for inclusion at future reconstitutions if it meets the Eligibility and Selection Criteria.

## **Additions**

There will be no additions to the index between reconstitutions unless the constituent count drops below 5. If the constituent count drops below 5, the Index Committee will review the eligible universe and determine the appropriate action.

#### **DACS Sector Reclassification**

In the event the DACS sector is modified for an existing index constituent between reconstitutions, the impacted constituent will remain in the index until the next scheduled reconstitution. Based on the new sector assignment, the impacted digital asset will be added automatically to the Watchlist for the relevant Select Sector index, if one exists, and be reviewed at the next reconstitution for possible inclusion.

#### Watchlist

Following the Constituent Selection and Weighting processes, a new Watchlist will be created that will be used for the Constituent Selection for the next Reconstitution. The process to create the Watchlist is as follows:

- All digital assets in the Selection Universe that were not selected as constituents for the current reconstitution are evaluated against the Constituent Liquidity Requirement and Constituent Market Cap Requirements determined in Step 3 of the Constituent Selection process.
- 2. All digital assets in Step 1 that meet or exceed both requirements will form the new Watchlist.
- 3. If the Market Cap and Liquidity Requirements were relaxed as part of the current Constituent Selection process, the Index Committee reserves the right to include additional digital assets on the new Watchlist.

## **Data Distribution**

Real-time index values are calculated 24x7 and are available publicly at https://coindesk.com/indices/ and are also available to subscribers via REST, WebSocket APIs, and scheduled email updates.

## **Index Governance**

The CoinDesk Index Committee provides ongoing oversight of each Index and its Methodology. For more details on the Index Committee, please refer to the Index Governance section of the CoinDesk Digital Asset Indices Policy Methodology.

## **Appendix 1: Data sources**

This section describes data sources used to maintain, reconstitute, and calculate the Indices. If data is not available for any reason from the sources described in this appendix, other data sources may be used.

#### Price data

Prices used to calculate VWAPs are sourced from Eligible Exchanges.

#### Volume data

Volume data used to calculate VWAPs are sourced from Eligible Exchanges.

## **Reconstitution Data**

Market capitalization and circulating supply data are provided by CoinMarketCap.com. and are taken at midnight UTC. Circulating supply and market capitalization data is subject to review by CDI and may be modified for appropriateness.

Daily notional volume is sourced from eligible exchanges. Daily notional generally reflects midnight UTC but is determined by the convention that the exchange uses, which may differ. In the event an exchange does not explicitly provide daily notional, CDI will estimate daily notional for a digital asset using the following formula:

Daily Notional Volume = Daily trading volume \* (open price + close price)/2

#### Other data

The availability of requisite custodian services for digital assets is obtained directly from the custody provider(s).

# **Appendix 2: CoinDesk Smart Contract Platform Select Ex ETH Index**

The CoinDesk Smart Contract Platform Select Ex ETH Index ("SCPXX") measures the market capitalization weighted performance of the constituents of the CoinDesk Smart Contract Platform Select Index ("SCPX") excluding Ethereum.

SCPXX follows the same maintenance and reconstitution schedule as SCPX.

At each reconstitution, the new list of constituents for SCPX, excluding Ethereum, are selected and form the index. The weight of Ethereum is proportionally redistributed to the remaining constituents. The final constituents are weighted by market capitalization.

# **Appendix 3: CoinDesk Currency Select Ex Bitcoin Index**

The CoinDesk Currency Select Ex Bitcoin Index ("CCYX") measures the market capitalization weighted performance of the constituents of the CoinDesk Currency Select Index ("CCYS") excluding Bitcoin.

CCYX follows the same maintenance and reconstitution schedule as CCYS.

At each reconstitution, the new list of constituents for CCYS, excluding Bitcoin, are selected and form the index. The weight of Bitcoin is proportionally redistributed to the remaining constituents. The final constituents are weighted by market capitalization.

## **Appendix 4: CoinDesk Market Select Index**

The CoinDesk Market Select Index ("CMI Select") measures the market capitalization weighted performance of the constituents of the CoinDesk Select Sector Indices listed in Table 5.

**Table 5: CMI Select Index Constituents** 

Index Name	Index Ticker
CoinDesk Smart Contract Platform Select Index	SCPX
CoinDesk DeFi Select Index	DFX
CoinDesk Currency Select Index	CCYS
CoinDesk Computing Select Index	CPUS
CoinDesk Culture & Entertainment Select Index	CNES

## **Index Maintenance**

The constituents of the CMI Select is made up of the constituents of the underlying CoinDesk Select Sector Indices listed in Table 5 and follows the same maintenance, calculation, and reconstitution procedures as the underlying indices.

## **Constituent Weighting**

Constituents are market capitalization weighted.

## **Additions**

In the event a new select sector index becomes available, the Index Committee will determine whether the index will be added as a constituent of the CMI Select.

#### **Deletions**

CoinDesk Indices reserves the right to remove a constituent from the CMI Select in the event the underlying index is terminated or no longer representative.

# **Appendix 5: Methodology Changes**

The table below is a summary of modifications to this Methodology.

Effective Date	Prior Treatment	Updated Treatment	Material Change
5/20/2024	Digital assets must be ranked within the top 200 of DACS to be eligible.	Digital assets must be included in DACS to be eligible.	No
12/21/2022	N/A	Digital asset must be included in CMI to be eligible for inclusion.	No
	Weighting Reference Date 2 business prior to Effective Date	Weighting Reference Date 7 calendar day prior to Effective Date	No
July 2022 Recon	CoinDesk DeFi Index (DFX) followed its own Index Methodology (available upon request).	Index renamed to CoinDesk DeFi Select Index (DFX) and follows the CoinDesk Select Sector Methodology.	Yes
July 2022 Recon	Minimum weight requirement of 1.0% for constituents and non-constituents.	Minimum weight requirement buffer introduced as follows: Constituents = 0.8% Non-constituents = 1.0%	No
06/26/2022	Constituents are re-weighted daily at 4PM using a 24-hour VWAP. This weight is used for the following 24-hour calculation.	Constituent weights are reset at each reconstitution and the calculation formula is modified to a weighted return algorithm based on each constituent's performance since the prior reconstitution.	Yes

# **Appendix 6: Document Revision History**

Timing	Description
8/23/2024	Updated Constituent Pricing section to clarify that pricing uses the Settlement Reference Rates in the Reference Rate Methodology following the addition of Spot Reference Rates
5/9/2024	See Methodology Changes Appendix dated 5/20/2024. In addition, minor updates and clarifications as part of the Annual Methodology Review
7/21/2023	Minor updates and clarifications
3/6/2023	Annual Methodology Review including minor updates and clarifications
12/21/2022	-Updates to Index Selection language -Removed reference to stablecoins in Eligibility section as stablecoins is a separate sector in DACSUpdates to Constituent Pricing section to refer to the CoinDesk Reference Rate methodology -Addition of new index – CMIS -Updates to Data Sources appendix related to determination of notional volume
05/04/2022	Inclusion of DFX in document + minor edits
08/29/2022	Addition of CCYS, CCYX, CPUS, CNES Indices
6/14/2022	Updates to methodology included in Methodology Change table effective June 25, 2022; removal of Reference Rate Appendix; other clarifications and minor updates to Constituent Selection and Watchlist sections.
05/04/2022	Inclusion of DFX in document + minor edits
4/4/2022	Revision: Update Reference Rate Contributing Exchanges
03/12/2022	Initial Version

## **Disclaimer**

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