



Nasdaq Crypto Index™ (NCI™)

What is the Nasdaq Crypto Index (NCI)?

Launched in February 2021, NCI is Nasdaq's first Digital Asset Index offering¹. The index measures the performance of a basket of the most actively traded digital assets and provides a benchmark for institutional investment in this new and emerging asset class. The Index is specifically designed to be dynamic in nature, broadly representative of the market, and readily trackable by investors.

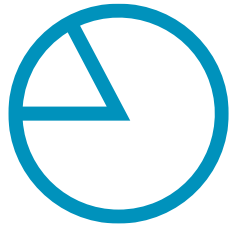
Index Overview:

- Tracks the performance of a diverse basket of USD-traded digital assets
- Applies liquidity, exchange and custody standards for asset eligibility
- Rebalanced and reconstituted on a quarterly basis
- Free float market cap weighted
- Governed by a robust methodology and the Nasdaq Cryptocurrency Index Oversight Committee (CIOC)



¹In June 2021, Nasdaq launched additional digital asset indexes including the Nasdaq Bitcoin Reference Price™ Index (NQBTC™) and the Nasdaq Ether Reference Price™ Index (NQETH™). In April 2022, Nasdaq launched additional indexes including the Nasdaq Crypto Index Europe Reference Price™ Index (NCIE™) and the Nasdaq Bitcoin/Ethereum Index Reference Price™ Index (NQBEI™).

Index Design Principles



Representative

Provides a representative benchmark for institutional investment into the asset class



Investible

Utilizes exhaustive selection criteria to include digital assets available at vetted core exchanges and custodians



Adaptable

Adjusts index composition at each reconstitution to ensure that it remains a flexible representation of the asset class as it evolves

How does it work?



How does it work?

I. Asset Eligibility Determination

I. Determining Eligibility

The universe of eligible assets is initially filtered on the basis of USD trading availability on approved “Core Exchanges” and with consideration of custody solution support by “Core Custodians”.

Specifically, eligible assets must:

- Meet **minimum liquidity standards** outlined in the methodology with USD trade pair¹
- Be traded on at least **two** core exchanges²
- Be supported by at least **one** core custodian², and
- Have free-floating price

These filters allow the Index to remain neutral and passive while ensuring constituents possess sufficient liquidity and appropriate custody options required for institutional grade investment products.



1) Minimum liquidity standard requires eligible assets to have a median daily trading volume that is no less than 0.5% of the constituent crypto asset that has the highest median daily trading volume. Calculations are performed using the aggregate of the respective USD pair across all core exchanges, measured during the first 30 calendar days immediately following the previous reconstitution and rebalance day.

2) Revised Core Exchange and Core Custodian requirements of two and one, respectively, become effective on June 1, 2022. Previous to this change, three Core Exchanges and two Core Custodians are required.

How does it work?

II. Constituent Selection from Eligible Assets

II. Constituent Selection

When all eligible assets are identified, the market capitalization of each asset is calculated.

Market capitalization of assets is calculated by multiplying the price of the asset across Core Exchanges by the free-float supply of the asset as defined in the methodology and calculated by Nasdaq's calculation agent, CF Benchmarks.

Assets that exceed 0.5% of the full market capitalization of all eligible assets are selected for inclusion.

How does it work?

III. Index Weights Applied

III. Weighting Constituents

Constituent assets selected for entry into the Index will be weighted according to their relative free float market cap.

This is calculated by dividing the free float market cap of a digital asset by the total free float market cap of all constituent assets included in the Index.

Weighting according to Circulating Supply of an asset without the application of capping is important to maintain an investable and accurate representation of the asset class.

Overview of Asset Selection Process



1) Revised Core Exchange and Core Custodian requirements of two and one, respectively, became effective on June 1, 2022. Previous to this change, three Core Exchanges and two Core Custodians are required.

Core Exchanges

With almost 500 crypto exchanges globally and varying degrees of user protection, it is important to source pricing only from vetted exchanges in order to form a trusted and accurate index price.

Nasdaq's pricing methodology requires a minimum of 2 Core Exchange¹ pricing inputs as part of mechanisms to reduce the impact of potential manipulation in the index price.

Limiting inclusion to assets supported by at least 2 Core Exchanges¹ ensures inclusion only of those assets that have been on-boarded by a critical mass of “institutional-ready” infrastructure.



¹ Core Exchange requirements were revised from three to two, effective on June 1, 2022.

This page provides an overview of the selection criteria. For an exhaustive list and description, please review the NCI Methodology: https://indexes.nasdaqomx.com/docs/methodology_NCI.pdf.

Core Exchanges

Key Selection Criteria¹

1. Effective AML/KYC controls in place
2. Licensed by independent public governing body
3. Effective trade monitoring, surveillance and enforcement procedures
4. Demonstrate robust IT infrastructure and capacity management
5. Commitment to cooperate with regulators and law enforcement

Approved Core Exchanges

1. Coinbase
2. BitStamp
3. Gemini
4. itBit
5. Kraken



¹ This is an overview of the selection criteria. For an exhaustive list and description, please review the NCI Methodology: https://indexes.nasdaqomx.com/docs/methodology_NCI.pdf.

Core Custodians

Custodians hold digital assets for safekeeping against theft and loss and ensure that digital asset transactions and trades are secure.

Limiting inclusion to assets supported by at least 1 Core Custodian¹ ensures an asset pool with sufficient market maturity as Core Custodians evaluate security and legal risks as well as market demand when deciding to provide custody services to an asset.



¹ Core Custodian requirements were revised from two to one, effective on June 1, 2022.

This page provides an overview of the selection criteria. For an exhaustive list and description, please review the NCI Methodology: https://indexes.nasdaqomx.com/docs/methodology_NCI.pdf.

Core Custodians

Key Selection Criteria¹

1. Licensed by an independent governing body
2. Provide independent segregated client accounts
3. Utilize advanced security infrastructure to include private key segmentation, multi-signature capabilities & geographic distribution
4. Insurance policy that covers, at least partially, theft or loss of private keys
5. Offers timely and secure redemption process
6. Demonstrate comprehensive risk management and risk mitigation processes
7. Evidence of third-party security audits

Approved Core Custodians

1. Coinbase
2. BitGo
3. Fidelity
4. Gemini



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Nasdaq Crypto Index Oversight Committee

Comprised of senior members across Nasdaq's Legal, Risk, Compliance, Trading, Surveillance, IT, and Index teams to ensure varying viewpoints and expertise.

Responsible for the implementation, administration, and general oversight of the Index, including the selection of Core Exchanges and Core Custodians, adjustments to account for regulatory changes, and periodic methodology reviews.

Committee conducts a final review of all eligible assets prior to entry at the quarterly reconstitution wherein it reserves the right to exclude any assets based on one or more factors, including, but not limited to, its review of general reputational, legal, regulatory, or security concerns connected to any asset.

Nasdaq will review new Core Exchange and Core Custodian candidates throughout the year and announce any new additions when approved. The list of existing Core Exchanges and Core Custodians will be recertified by the CIOC at minimum on an annual basis.



Index Weights and Components (as of 12/31/2022¹)

Component	Weight
Bitcoin (XBT)	65.64%
Ethereum (ETH)	30.28%
Litecoin (LTC)	1.19%
Chainlink (LINK)	0.65%
Bitcoin Cash (BCH)	0.34%
Axie Infinity (AXS)	0.13%
Stellar Lumens (XLM)	0.34%
Uniswap (UNI)	0.47%
Filecoin (FIL)	0.16%
The Sandbox (SAND)	0.01%
Ethereum Classic (ETC)	0.024%
Polkadot (DOT)	0.47%



¹Weights as of the end of the day 12/31/2022. Weights sum to 100.01% due to rounding.

Historical Performance¹

Nasdaq Crypto Index Settlement Price™ Index (NCIS™)



	NCIS	S&P 500
Q4 (2022)	-14.1%	4.4%
LTM ²	-66.8%	-19.7%
Total History	111.2% ³	152.4% ⁴

¹ Past performance may not be indicative of future returns

² Data included is from 12/30/2021 to 12/30/2022

³ Data included is from 6/1/2020 to 12/30/2022 and includes backtested performance for NCIS prior to 2/2/2021

⁴ Data included is from 2/14/13 to 12/30/2022



Portfolio Performance with NCIS Allocation¹

The impact of small allocations to NCIS on a typical investor portfolio consisting of a standard basket of equities

	S&P 500	Portfolio with 1% NCIS	Portfolio with 2% NCIS	Portfolio with 5% NCIS
Q4 (2022)	4.4%	4.2%	4.0%	3.5%
LTM	-19.7%	-20.1%	-20.6%	-22.0%
Total History ²	152.4%	152.0%	151.5%	150.3%

¹ Past performance may not be indicative of future returns

² Total History for NCIS includes data from 6/1/2020 to 12/30/2022 and includes backtested performance for NCIS prior to 2/2/2021. Total History for S&P 500 includes data from 2/14/13 to 12/30/2022



Additional Information

Ticker Symbol	NCI (Real-Time) and NCIS (Daily Settlement)
Calculation Agent	The Index is calculated by CF Benchmarks Limited
Reconstitution and Rebalancing Frequency	Reconstitution and rebalances occur quarterly (First business day of March, June, September and December)
Index Back-test Start Date	June 1, 2020
Index Launch Date	February 2, 2021
Daily Index Publication (NCIS)	The level of the Settlement Index is calculated once a day on Business Days at 3:00:00 PM ET and is published on the Nasdaq Global Index Data Service (GIDS)
Real-Time Index Level (NCI)	Real-time calculation of the Index is available on the CF Benchmarks website at https://www.cfbenchmarks.com/indices/NCI
Currency	USD

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