

Understanding the landscape: How does the Nasdaq Crypto Index Europe[™] stack up to its peers?

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Hashdex, a leading global crypto-focused asset manager, launched the Hashdex Nasdaq Crypto Index Europe exchange-traded product ("ETP") on May 2, 2022, on the SIX Swiss Exchange under the ticker SIX: HASH SW. Tracking the Nasdaq Crypto Index Europe[™] (NCIE[™]), the ETP represents the firm's first European product and gives investors access to the latest and most well-capitalized blockchain technologies. Nasdaq launched the index the same day as the ETP.

Basket crypto indexes can help facilitate investment that's diversified, dynamic, and that benefits from robust infrastructure and governance processes. There are a growing number of options to choose from—given a substantial level of constituent overlap, it can be difficult to understand how each structure is differentiated from the rest.

This article seeks to illustrate the key differences between the Nasdaq Crypto Index Europe and four other Indexes that contain a similar set of constituents.

The Indexes reviewed include:

- 21Shares Crypto Basket Index
- SEBA Crypto Asset Select Index
- Sygnum Platform Winners Index
- WisdomTree Crypto Market Index

There are several dimensions upon which a comparison is possible, including: strategy and objectives, holdings and constituent profiles, methodology, performance, and efficiency. After reviewing these areas in detail, several key factors that differentiate the NCIE from its peers emerge:

Holdings

The following table illustrates the composition of each Index evaluated:

		Constituent Weight (%)											
Index	ADA	AVAX	BNB	BCH	BTC	DOT	EOS	ETH	LUNA	LTC	SOL	MATIC	хтz
Nasdaq Crypto Index Europe	2.92	1.66	-	-	60.30	0.47	-	29.30	-	0.70	3.95	0.71	-
21Shares Crypto Basket Index	-	-	-	-	49.9	15.9	-	24.1	4.8	-	5.3	-	-
Sygnum Platform Winners Index	8.1	2.1	5.1	-	34.6	6.4	0.5	26.2	3.8	-	12.7	-	0.6
WisdomTree Crypto Market Index	12.4	-	-	2.5	45.0	3.1	-	30.0	-	2.7	4.3	-	-
SEBA Crypto Asset Select Index	8.1	5.9	-	-	40.9	6.7	-	22.6	-	8.8	7.1	-	-

Notes:

Weights as of May 5, 2022, (EOD) for all Indexes, except for the WisdomTree Crypto Market Index, which is as of the August 2021 rebalance.

While all five Indexes have exposure to Polkadot and Solana, only three contain allocations to Avalanche (AVAX). Avalanche is arguably one of the most promising heterogenous blockchain protocols in existence. Led by renowned, former Cornell professor Emin Gün Sirer, the protocol successfully pushes the limits across several key dimensions, such as network scalability, useability, and developer rewards. In addition to differentiation from the 21Shares Crypto Basket Index and WisdomTree Crypto Market Index given allocations to AVAX, the Nasdaq Crypto Index Europe is further differentiated from all four Indexes via its allocation to Polygon (MATIC). Polygon is one of the industry's leading layer 2 scalability solutions—it is widely utilized and respected by practitioners and investors alike. Although Index constituents are certainly expected to change over time in all five structures, the NCIE currently benefits from this differentiation.

Performance

Performance metrics for the NCIE are not available due to its launch at the beginning of May 2022, but the below table highlights key metrics for the comparable Indexes. While there are meaningful differences in returns, the volatility profiles are largely similar across subject peer Indexes.

	Ret	turn	Volatility			
Index	FY 2021	April 2022 YTD	FY 2021	April 2022 YTD		
Nasdaq Crypto Index Europe	NA	NA	NA	NA		
21Shares Crypto Basket Index	143.7%	-27.7%	90.6%	74.0%		
Sygnum Platform Winners Index	181.5%	-26.3%	85.3%	74.0%		
WisdomTree Crypto Market Index	NA	-25.8%	NA	73.6%		
SEBA Crypto Asset Select Index	200.0%	-26.6%	89.6%	76.4%		
Average	175.0%	-26.6%	88.5%	74.5%		

Calculation Notes:

- 1. Annualized volatility calculations based on weekday Index performance and a 252-trading-day year.
- 2. April 2022 YTD metrics through Friday, April 29, 2022.

Caps and Floors

The 21Shares, WisdomTree, and SEBA Indexes all utilize some form of capping and/or flooring when determining position sizes. This distorts index composition in a way that may not be reflective of relative market capitalization. The NCIE, however, utilizes a pure, free-float market cap weighted approach that ensures the size of exposures remain grounded in actual market performance. Although the Sygnum Index doesn't utilize explicit caps or floors, it uses three additional (equal-weighted) factors to determine constituent weights, which results in substantial deviation from the free-float market cap weightings that are implied by market conditions.

Concentration

All four peer Index methodologies apply artificial limits to the number of constituents allowed. In contrast, the number of assets contained within the NCIE basket fluctuates based on market conditions without placing any arbitrary restrictions on the number of

constituent assets; this allows for the NCIE to more closely reflect the state of value concentration that exists naturally at any point in time.

Discretion

The Nasdaq Crypto Index Europe has been specifically designed to limit the amount of discretion that's required for its ongoing implementation. Discretion is used soley in the context of regulatory compliance, suitability, and exception management, but not for broadly defined purposes such as specific portfolio construction and position sizing. These design features help ensure the Index represents actual market conditions, not the particular views of any individual who serves on Nasdaq's Crypto Index Oversight Committee. This approach appears to differ substantially from that of the Sygnum and WisdomTree Indexes. In the case of the WisdomTree Index, the Committee selects between five and twenty assets based on its qualitative review—this obviously has the potential for a wide array of selection outcomes that may not be generally stable or consistent over time. In the case of the Sygnum Index, while selection and weighting processes are performed using quantitative means, two out of four of the factors considered are driven by opaque analyses related to social media presence and developer resources, each of which is notoriously difficult to assess.

Efficiency

Lastly, the Hashdex NCIE ETP specifies a management fee of 1.49% per annum. This is in-line with that of the SEBA Crypto Asset Select Index ETP (1.50%) and the WisdomTree Crypto Market Index ETP (1.45%). Management fees for the Hashdex NCIE ETP are notably lower than those of the 21Shares Crypto Basket Index and Sygnum Platform Winners Index ETPs, each of which charges 2.50% per annum.

For more information, please visit https://indexes.nasdagomx.com/Index/Overview/NCIES.

About Hashdex

Hashdex is a global pioneer in crypto asset management. Hashdex's simple and secure financial products invite innovative investors to join the emerging crypto economy. Hashdex's mission is to provide educational resources and best-in-class products that advance its efforts to build pathways to prosperity by opening the crypto ecosystem to the world. The firm co-developed the Nasdaq Crypto Index[™] (NCI[™]) with Nasdaq to provide global investors with a reliable benchmark for the crypto asset class. In 2021, Hashdex introduced the world's first crypto ETFs, enabling over 260,000 investors to simply and securely add crypto to their portfolios. For more information visit <u>www.hashdex.com</u>.

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