
Index Methodology



vinter

21SHARES

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Introduction

The Vinter 21Shares Crypto Indexes are a family of benchmarks, owned by 21Shares. The indexes are developed to provide a rule-based and transparent way to track the value of a portfolio. Each index measures the value of an investment strategy.

This methodology clearly determines what constitutes an active market for the purposes of each index, and establishes the priority given to different types of input data. The methodology takes into account factors like the size and liquidity of the market, the transparency of trading, the positions of market participants, market concentration, and the adequacy of any sample to represent the market or economic reality that the benchmark is intended to measure.

21Shares AG ("21Shares") makes investing in crypto assets as easy as buying shares using your conventional broker or bank. Founded in 2018, 21Shares is led by a team of talented serial entrepreneurs and experienced banking professionals from the technology and financial world. Incorporated in Zug, with offices in Zurich and New York, the company has launched several world firsts, including the first listed crypto basket index ETP in November 2018. Learn more at 21shares.com.

Invierno AB ("Vinter") is a pioneering index provider specialized in crypto assets, playing a key role in the emerging crypto ETF industry. The firm collects digital asset data from hundreds of sources, transforming proprietary strategies into investable products. Learn more at vinter.co.

Indexes

Vinter 21Shares Crypto Basket 10 Index

The Vinter 21Shares Crypto Basket 10 Index ("HODLX") is a passive index capturing the crypto asset market. It offers a diversified exposure to the ten largest crypto assets. HODLX is a buy-and-hold strategy for passive investors. The index is rebalanced quarterly.

Construction

- **Asset universe:** Eligible constituents that are in the top 15 ranked coins by market capitalization at the time of inclusion.
- **Asset selection:** Top 10 by 90 days average market capitalization.
- **Target weights:** Current market capitalization.
- **Rebalanced:** Quarterly, starting end of January.
- **Rationale:** A passive index capturing the crypto market.

Details

- **Currency:** USD
- **Type:** Price return
- **Base date:** 2021-01-01
- **Base value:** 1000.00
- **Dissemination:** Daily 17:00 CET
- **Fee:** 0%

Identifiers

- **Long name:** Vinter 21Shares Crypto Basket 10 Index
- **Short name:** HODLX
- **ISIN:** SE0016830590
- **FIGI:** BBG012MV85F5
- **Bloomberg:** HODLX
- **Refinitiv:** .HODLX
- **Vinter API:** vntw-hodlx-10-d

Vinter 21Shares Crypto Basket Equal Weight Index

The Vinter 21Shares Crypto Basket Equal Weight Index ("HODLV") contains the five largest crypto assets, all weighted equally. HODLV is a mean-reversion strategy since assets are weighted equally and rebalanced quarterly.

Construction

- **Asset universe:** Eligible constituents that are in the top 15 ranked coins by market capitalization at the time of inclusion.
- **Asset selection:** Top 5 by 90 days average market capitalization.
- **Target weights:** Equal weighted.
- **Rebalanced:** Quarterly, starting end of January.
- **Rationale:** Invests in the largest assets with a mean reversion strategy; gains are realized at every rebalancing, and underperforming assets are bought.

Details

- **Currency:** USD
- **Type:** Price return
- **Base date:** 2021-01-01
- **Base value:** 1000.00
- **Dissemination:** Daily 17:00 CET
- **Fee:** 0%

Identifiers

- **Long name:** Vinter 21Shares Crypto Basket Equal Weight Index
- **Short name:** HODLV
- **ISIN:** SE0016830608
- **FIGI:** BBG012MV86K7
- **Bloomberg:** HODLV
- **Refinitiv:** .HODLV
- **Vinter API:** vntw-hodlv-5-d

Index Construction

Asset Universe

The default asset universe consists of all eligible constituents. It is possible to restrict the universe to certain categories of assets.

Asset Selection

The index constituents are selected from the asset universe. The selection process can be based on a number of factors such as returns, volatility, market capitalization, trading volume, or a combination thereof.

In the asset selection, data up to five business days prior to the rebalancing date is used.

The default asset selection criteria is to include the largest assets as determined by market capitalization.

If it is not possible to reach the intended number of constituents, the Index Committee can decide to either include non-eligible constituents or allow the index to have fewer constituents than intended. The decision shall be made publicly available.

Target Weights

The target weights can be determined based on a number of factors such as returns, volatility, market capitalization, trading volume, or a combination thereof - with or without smoothing over time. Caps and floors can be included.

In the calculation of target weights, data up to five business days prior to the rebalancing date is used.

The default is a market capitalization weighted index, in which each asset is weighted by its portion of the total market capitalization of all index constituents.

The target weight per asset is unchanged between rebalances.

Rebalancing

All indexes are rebalanced periodically, by default quarterly, with the rebalancing date set to the last business day of the month. Rebalancing involves selection of constituents and calculation of their target weights. Calculations are done using the closing prices on the rebalancing date. The new quantities per asset are used on the opening of the day after rebalancing. After the rebalance, the portfolio's weights per asset are updated so that they equal the target weights per asset.

Eligible Constituents

Crypto-assets trading on eligible exchanges are eligible as index constituents if they:

1. are a cryptographically secured digital bearer instrument;
2. are not index tokens, stablecoins or pegged to another asset such as currencies or commodities;
3. are not an ongoing Initial Coin Offering;
4. are not deemed a security or fraudulent by a public financial regulatory authority with jurisdiction over the constituent or its wrapper;
5. are supported by the industry including market makers, custodians and regulated exchanges;
6. can be deposited to and withdrawn from least two eligible exchanges;
7. are freely traded and can be freely held for the foreseeable future;
8. have for the past month had a daily trading volume that exceeds USD 10 million on at least two eligible exchanges;
9. allow for cold storage;
10. have an average market capitalization above \$1 billion the last month;
11. trade against a G10 currency (AUD, CAD, EUR, JPY, NZD, NOK, GBP, SEK, CHF, USD); and
12. are not designed to be private.

Constituent Pricing

Assets are priced using Vinter's single asset indexes, which are price return indexes. The Benchmark Statement of this methodology defines the eligibility criteria for input data used to determine the benchmark.

Market Capitalization

The market capitalization is given by price times circulating supply. For Proof-of-Work crypto assets, a block explorer is used to get the circulating supply. For crypto assets issued on smart contract platforms, such as ERC20 issued on Ethereum, the circulating supply is calculated by starting with the total supply and removing the locked tokens e.g. those held by the founding organization.

If the above is insufficient or inapplicable to determine the circulating supply, other readily available data sources determined by the Company's Product Maintenance Department might be considered.

Administration

The Benchmark Administrator is the central recipient of input data with the ability to evaluate the integrity and accuracy of input data on a consistent basis. The Benchmark Administrator is responsible for the development of the indexes and controls all aspects of the provision of benchmarks. The Benchmark Administrator has established a permanent and effective oversight function, governance processes subject to periodic reviews and audits, policies regarding complaints, ethics, conflicts of interest and contingency, and has established a clear internal organizational structure with consistent roles and responsibilities to identify, prevent, disclose, mitigate, and manage conflicts of interest.

The Calculation Agent is an individual or entity that is responsible for determining the value of an index and/or a financial instrument. The Calculation Agent calculates the index values in accordance with the index methodology. Upon the request of the Benchmark Administrator, the Calculation Agent shall provide all information available on the composition and details of the calculation of the requested index.

The Publication Agent is an entity responsible for the publication of index values to dissemination platforms.

Vinter is the benchmark administrator, calculation agent and publication agent of this index family.

Roles

- **Index owner:** 21Shares
- **Calculation agent:** Vinter
- **Benchmark administrator:** Vinter
- **Publication agent:** Vinter

Definitions

- **Crypto asset:** A digital representation of value that is cryptographically secured.
- **Volume:** the quantity of a transaction.
- **CET:** Central European Time.
- **Business day:** A day when the SIX stock exchange is open for trading.

Document Versions

Version 1.0 Initial version. September 10, 2021.

Disclaimer

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