



Kaiko

Indices

Vinter 21Shares Crypto Indices

Index

Methodology

About Kaiko Indices

Kaiko Indices offers institutional-grade benchmarks and indices, setting the standard for reliability and transparency in the digital asset market. As a regulated Benchmark Administrator under the EU BMR framework and compliant with IOSCO principles, we empower exchanges, asset managers, and financial institutions with trusted data solutions that support robust settlement and risk management practices.

Introduction

The Vinter 21Shares Crypto Indexes are a family of benchmarks. 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 considers 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.

Read 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.

Read more at vinter.co.

Indices

HODLV

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

Universe:

All eligible assets.

Selection:

Top 5 by 90 days average market capitalization.

Weighting:

Equally weighted.

Rebalancing:

Quarterly on the last business day of the month, starting at the end of January.

Rationale:

Invest in the largest assets with a mean reversion strategy; gains are realized at every rebalancing, and underperforming assets are bought.

Dissemination

Currency:

USD

Base Value:

1000.00

Type:

Price return

Calculation:

Daily at 4:00 pm London time

Launch Date:

2021-09-29

Publication:

Daily after 4:10 pm London time

Base Date:

2021-01-01

Indices

HODLV

Identifiers

Full Name:

Vinter 21Shares Crypto Basket Equal Weight Index

Ticker:

HODLV

ISIN:

SE0016830608

FIGI:

BBG012MV86K7

Bloomberg:

HODLV

Refinitiv:

.HODLV

Vinter API:

vntw-hodlv-5-d

Indices

HODLX

The Vinter 21Shares Crypto Basket 10 Index ("HODLX") is a passive index capturing the crypto asset market. It offers a diversified exposure by selecting the ten largest assets and weighing them according to their market capitalization. The index is rebalanced quarterly.

Construction

Universe:

All eligible assets.

Selection:

Top 10 by 90 days average market capitalization.

Weighting

Proportional to the current market capitalization.

Rebalancing:

Quarterly on the last business day of the month, starting at the end of January.

Rationale:

Invest in the ten largest assets to get diversified exposure to the crypto markets. HODLX is a buy-and-hold strategy for passive investors.

Dissemination

Currency:

USD

Base Value:

1000.00

Type:

Price Return

Calculation:

Daily at 4.00 pm London time

Launch Date:

2021-09-29

Publication:

Daily after 4.10 pm London time

Base Date:

2021-01-01

Indices

HODLX

Identifiers

Full Name:

Vinter 21Shares Crypto Basket 10 Index

Ticker:

HODLX

ISIN:

SE0016830590

FIGI:

BBG012MV85F5

Bloomberg:

HODLX

Refinitiv:

.HODLX

Vinter API:

vntw-hodlx-10-d

Indices

ALTS

The Vinter 21Shares Crypto Mid-Cap Index ("ALTS") is a passive index capturing the mid-cap portion of the crypto asset market. The index offers diversified exposure to the largest crypto assets but excludes the number one and two ranked crypto assets by market capitalization, resulting in a substantially larger weight in the remaining eight constituents. The index is rebalanced quarterly.

Construction

Universe:

All eligible assets.

Selection:

Top 8 assets ranked 3-10 by 90 days average market capitalization, i.e. select the top 10 and then exclude the two largest assets).

Weighting

Proportional to the current market capitalization.

Rebalancing:

Quarterly on the last business day of the month, starting at the end of January.

Rationale:

Capture the mid-cap crypto assets by starting with a top 10 index and then excluding the two largest assets.

Dissemination

Currency:

USD

Base Value:

1000.00

Type:

Price Return

Calculation:

Daily at 4.00 pm London time

Launch Date:

2021-12-14

Publication:

Daily after 4.10 pm London time

Base Date:

2021-01-01

Indices

ALTS

Identifiers

Full Name:

Vinter 21Shares Crypto Mid-Cap Index

Ticker:

ALTS

ISIN:

SE0017132293

FIGI:

BBG013PZ2Z34

Bloomberg:

ALTS

Refinitiv:

.ALTS

Vinter API:

vntw-alts-8-d

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STAKE

The Vinter 21Shares Crypto Staking Index (“STAKE”) includes the largest crypto assets with support for staking. All constituents are staked, and the yield generated from staking is incorporated into the index returns. The staking yield is not fixed but floating, meaning that higher staking yields will translate into a better return on investment. This is a total return index where investors will reap the rewards from staking. Constituents are weighted proportionally to their market capitalization with a maximum weight of 30%. The index is rebalanced on a semi-annual basis.

Construction

Universe:

All eligible assets with institutional support for staking.

Selection:

Up to ten of the largest assets by current market capitalization.

Weighting

Proportional to the current market capitalization, with a maximum weight of 30%. If a cap is enforced, the weight is spread proportionally across the non-capped assets.

Rebalancing:

Semi-annually on the last business day of the month, at the end of March and September.

Rationale:

Invest in the largest Proof-of-Stake assets while reaping the rewards from staking as the yields generated from staking are incorporated into the index returns. This index not only offers the possibility of enhanced returns through staking but also removes the technical hurdles to stake. It is similar to a total return equity index where investors reap the rewards from stock dividends.

Dissemination

Currency:

USD

Base Value:

1000.00

Type:

Price Return

Calculation:

Daily at 4.00 pm London time

Launch Date:

2023-01-18

Publication:

Daily after 4.10 pm London time

Base Date:

2021-01-01



Indices

STAKE

Identifiers

Full Name:

Vinter 21Shares Crypto Staking Index

Ticker:

STAKE

ISIN:

SE0019354069

FIGI:

BBG01BCCWP03

Bloomberg:

STAKE

Refinitiv:

.STAKE

Vinter API:

vntw-stake-10-d

Indices

STAKE

Staking

In a price return index the quantity per asset is unchanged between rebalances, whereas in a total return index the quantity per asset is updated daily. The quantity per asset tomorrow is given by today's quantity plus the quantity generated from staking. We use this quantity to calculate the index value using Vinter's reference rates and the standard formula described in the section Calculation. The three key variables in a total return index are:

- Y: Yield
- Q: Quantity, and
- U: Utilization Rate.

Using informal notation, we can say that the index stakes the quantity $Q * U$, which increases the quantity per asset with $Y * Q * U$. More formally, the daily quantity increase of an asset i between day t and day $t+1$ is given by:

$$Q_i(t + 1) - Q_i(t) = Y_i(t).Q_i(r).U_i(t)$$

Where $Y_i(t)$ is the daily staking yield, $U_i(t)$ is the utilization rate, $Q_i(r)$ is the quantity, and r is the most recent rebalancing date on day t . Notice there is no compounding as $Q_i(r)$ is unchanged between rebalances.

The yield per asset is calculated as the median of readily available yield estimates from selected staking providers. The median is robust against fluctuations in yield values, and is a representative measure of the market yield for a typical investor. There is a natural lag in the calculation, where the data used to calculate the yield on a certain day must be in the database the previous day for validation purposes.

The utilization rate per asset can be thought of as the percentage of the assets under management that is staked. The rate is determined based on factors including lock up periods and liquidity and ranges between 0% and 100%. The rate is set on the day of rebalancing and is constant between rebalancing dates. Prior to a rebalance, all staked assets are unwound for a brief period. No yield is generated during this period, and the utilization rate is set to zero. The duration of this period depends per asset, based on the lockup period for each asset.

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As of 2025-03-24 the utilization rate and the unstaking period are set to:

- 100% and 0 days for ADA,
- 100% and 0 days for XTZ,
- 80% and 4 days for SOL,
- 80% and 7 days for BNB,
- 60% and 21 days for ATOM,
- 60% and 28 days for DOT,
- 10% and 15 days for AVAX,
- 10% and 2 days for NEAR.

General Construction Parameters

This section defines the general construction parameters used in designing the index such as the asset universe, the asset selection and the rebalancing weights. This section contains the details needed to calculate each index.

Universe

The asset universe is a list of all possible index constituents. The default asset universe consists of all eligible constituents. It is possible to restrict the universe to assets that only contain a certain label e.g. Metaverse or Web3 as defined in the Vinter Taxonomy.

Selection

The index constituents are selected from the asset universe. One example is to select the ten largest assets based on the current market capitalization. In general, the selection process can be based on a number of factors such as market capitalization, trading volume, returns, volatility, or a combination thereof.

Assets are selected on the review date, which is five business days prior to the rebalancing date. Note that Review Date is not the same as the Yearly Review.

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.

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Weighting

Rebalance weights are calculated on the review date.

The current weights per asset display the current asset allocation, and is relevant for an ETF creation/redemption. The current weights change every day, based on price movements, whereas the rebalance weights are unchanged between rebalances. The rebalance weights are updated only when the index is rebalanced.

The weight for each asset is always between 0 and 1. The sum of all constituent weights is equal to 100%.

Rebalancing

All indexes are rebalanced periodically, following the rebalancing calendar. Rebalancing involves the selection of constituents and the calculation of their rebalancing weights. Calculations are done using the closing prices on the rebalancing date. The new weights per asset are used on the opening of the day after rebalancing.

After the rebalance, the portfolio is updated so that its current weights per asset equal the rebalancing weights per asset. The bigger the difference between the current weight and the rebalancing weight, the larger the portfolio turnover.

Eligible Assets

Assets are eligible as index constituents if they meet the eligibility criteria listed in Vinter's benchmark statement.

This index methodology expands the asset universe by removing from the eligibility criteria mentioned above:

12. have a market capitalization above USD 500 million;

This index methodology also restricts the asset universe by amending two eligibility criteria mentioned above with the following:

- 6. are supported by the industry including market makers, custodians, regulated exchanges, and at least one eligible crypto exchange;
- 9. have a daily trading volume that exceeds USD 5 million against USD, USDT, USDC, and other stablecoins;

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Calculation

The index value is given by the weighted sum over all constituents of quantity times price divided by a divisor. The price per asset is calculated by Vinter, as detailed in the constituent pricing section.

The quantity per asset is set to the Rebalancing Weight per asset after rebalancing. In a price return index, the quantity per asset is unchanged between rebalances.

The divisor enforces index continuity on rebalancing. The divisor is defined so that the index starts at a certain start value, which ensures each index tracks the value of a certain amount of capital invested on the start date.

Constituent Pricing

The Vinter reference rates are used to price assets. The algorithms are described in [Vinter's single asset reference rates](#). The [Benchmark Statement](#) defines the eligibility criteria for input data.

Each index in this methodology uses the reference rate [VFIX 4 pm London time](#).

Market Capitalization

The market capitalization is given by price times circulating supply. Using circulating supply is similar to using public float for an equity index. The market capitalization is calculated at midnight UTC.

Index Provider

Invierno AB, Reg. No. 559207-4172, Box 5193, 10244 Stockholm, Sweden ("Vinter")

Benchmark Administrator

Vinter is the benchmark administrator and the central recipient of input data with the ability to evaluate the integrity and accuracy of input data on a consistent basis. Vinter is responsible for the development of the index and controls all aspects of the provision of the benchmark. Vinter 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.

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Calculation Agent

Vinter is the calculation agent and is responsible for determining the value of the index described in the index methodology. Vinter 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.

Document Versions

Version	Date of update	Change
1.0.	2021-09-10	Initial version
1.1.	2022-05-16	Add LAY1 and DEFI
1.2.	2023-01-18	Add STAKE
2.0.	2023-08-31	Remove LAY1 and DEFI and update the Eligible Assets section

Indices

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