HKVAC Cryptocurrency Large Market Cap Index Methodology

June 2023

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1. INTRODUCTION

1.1. Index Objective

This document outlines the procedures for maintaining and calculating the HKVAC Cryptocurrency Large Market Cap Index, which tracks the performance of cryptocurrencies within the large market cap segment worldwide.

HKVAC maintains the index methodology and manages the calculations and indices independently in accordance with standard policies and procedures, which include the policies and procedures governed by independent Index. In order to ensure that the Index continues to perform at an appropriate level in changing market conditions, HKVAC may revise the index methodology from time to time. Any changes to the index methodology will be announced on the HKVAC website in advance of implementation.

2. ELIGIBILITY CRITERIA

2.1. Eligible Universe

2.1.1. Cryptocurrency Fulfilment

All cryptocurrencies must fulfil the following eligibility criteria to be considered as part of the index.

2.1.1.1. Types of Constituents

- Bitcoin and Ethereum are excluded from the index.
- Stable coins, pegged coins, and privacy coins are excluded from the index.

2.1.1.2. Market Capitalization Requirement

To be considered eligible for inclusion in the index, cryptocurrencies must have a median market capitalization of at least US$10 million, calculated as an average over the preceding three-month period.

2.1.1.3. Liquidity Requirement.

Cryptocurrencies must maintain a median daily traded value of no less than US$100,000 over the preceding three-month period.

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2.2. Final Constituents Selection

All eligible cryptocurrencies within the eligible universe of the HKVAC Cryptocurrencies Large Market Cap Index are ranked based on their median market capitalization over a seven-day period, with the top 30 cryptocurrencies being selected for inclusion in the index. At rebalancing stage, if the number of Crypto Reference Indexes in the Eligible Universe is less than 30, all eligible constituents are included in the index. However, the Index Committee reserves the right to adjust the number of constituents in response to changes in the cryptocurrency market and other relevant circumstances.

2.3. Index Weighting

The final selected constituents are weighted in proportion to the market capitalization of their respective cryptocurrencies.

3. INDEX CALCULATION

The index is available in a price variant that is updated daily. In addition, monthly, quarterly, and yearly returns are also calculated and provided as benchmarks and reference points for index users.

For more details of index calculation, please refer to appendix 1.

4. INDEX MAINTENANCE

4.1. Rebalancing

HKVAC adjusts the weights of the constituents to ensure that the index accurately reflects the performance of the large market cap segment of the cryptocurrency market.

Based on changes in the cryptocurrency market environment and special circumstances, the index constituents are added, removed or re-weighted. For more information, please refer to HKVAC Index Operation Guide at www.hkvac.io/.

For more details of rebalancing calculation, please refer to appendix 2.

4.2. Price Capture Time

The prices of eligible constituents are captured at 4:00pm Hong Kong time.

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4.3. Methodology Adjustment

This methodology may be supplemented, amended in whole or in part, revised or withdrawn by index committee at any time. HKVAC Index Committee reviews the index methodology and procedure at least once within any 12-month period to ensure the index is aligning with its objective and the methodology and the procedure remain effective.

4.4. Additions and Deletions

The addition and removal of cryptocurrency constituents may be necessary due to various factors, such as Hard Fork / Soft Fork / Staking Rewards / Other Rewards / New Listings / etc. For more information, please refer to HKVAC Index Operation Guide at www.hkvac.io/.

4.5. Currency of Calculation

The index calculates in U.S. dollars.

5. INDEX GOVERNANE

5.1. Index Committee

HKVAC Index Committee is composed of professional members of HKVAC staffs and/or advisors. The committee is responsible for overseeing the integrity and effectiveness of the index over time. The main function of HKVAC Index Committee include but not limited to:

- Determining index methodologies and rules governing the index publication.
- Handling extraordinary events.
- Reviewing constituent changes to indexes.

Discussion within HKVAC Index Committee is confidential.

5.2. Quality Control

Quality control processes and procedures are implemented to ensure that index calculation and maintenance are of the high standard. Any incidents or errors are logged into HKVAC's internal system to ensure proper monitoring and resolution.

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5.3. Annual Review Process

HKVAC Index Committee reviews each index methodology and procedure at least once within any 12-month period to ensure that indexes are aligning with its objective and the methodology and the procedure remain effective.

6. DISSEMINATION

Index is calculated on all calendar days with no holiday.

Index is disseminated at or before 5:00pm Hong Kong time.

7. INDEX POLICY

7.1. Announcements

Any events that may affect the calculation of the index are usually announced in advance via the HKVAC website. Index users may be notified via email of any special handling of cryptocurrency events.

7.2. Pro-forma File

A pro-forma file containing all constituents and corresponding weights will be provided in advance of the rebalancing date. The actual weight of each constituent at the rebalancing will differ from the weight in the pro-forma file due to market movements.

7.3. Rebalancing

Rebalancing will be reviewed quarterly at the end of the calendar quarters in March, June, September and December.

The results of the rebalancing will be announced within two weeks of the end of the corresponding calendar quarter and will be implemented on the Friday following the announcement. If the Friday implementation date falls on a public holiday in Hong Kong, implementation will take place on the next business day.

For more information, please refer to HKVAC Index Operation Guide at www.hkvac.io/.

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7.4. Index Recalculation and Correction

The decision to recalculate or correct an index is made at the discretion of the Index Manager and/or Index Committee. For more information, please refer to HKVAC Index Operation Guide at www.hkvac.io/.

8. CONTACT INFORMATION

Website: www.HKVAC.io

Email: enquiry@HKVAC.io

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9. APPENDIX 1: INDEX CALCULATION

The calculation methodology of HKVAC Cryptocurrency Large Market Cap Index level for all eligible constituents as the below:

$$Index_t = \frac{\sum_{i=1}^{x} P_{i,t} \times S_{i,t}}{D_t}$$

$Index_t = Index\ level\ price\ at\ observation\ time$

$P_{i,t} = Report\ Price\ (USD)\ for\ selected$ cryptocurrency$(i)\ at\ observation\ time\ t$

$S_{i,t} = Circulating\ Supply\ of\ selected$ cryptocurrency$(i)\ at\ observation\ time\ t$

$D_t = Index\ Divisor\ at\ obseration\ time$

The initial divisor of the HKVAC Cryptocurrencies Large Market Cap Index was calculated using the following formula:

$$D_0 = \frac{\sum_{i=1}^{x} P_{i,0} \times S_{i,0}}{3000}$$

$P_{i,0} = Report\ Price\ (USD)\ for\ selected$ cryptocurrency$(i)\ on\ initial\ day$

$D_0 = Initial\ Divisor$

$S_{i,t} = Circulating\ Supply\ of\ selected$ cryptocurrency$(i)\ on\ initial\ day$

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10. APPENDIX 2: REBALANCING CALCULATION

The rebalancing calculation methodology of HKVAC Cryptocurrency Large Market Cap Index level for all eligible constituents as the below:

The weights of the constituents will be adjusted to ensure that they are consistent with their market capitalization and the requirements of the index methodology.

The divisor in an index is subject to change based on the volatility of the constituent prices and market capitalization under different circumstances.

A new divisor is calculated using the following formula during the index rebalancing process.

$$D_A = D_P \times \frac{\sum_{i=1}^{n} P_{i,t} \times S_{i,t} \ (for \text{ new constituents})}{\sum_{j=1}^{o} P_{j,t} \times S_{j,t} \ (for \text{ old constituents})}$$

$D_A = Adjusted\ Index\ Divisor\ on\ rebalancing\ date$

$D_P = Index\ Divisor\ on\ previous\ rebalancing\ date$

$P_{i,t} = Report\ Price\ (USD)\ for\ selected$ cryptocurrency$(i)\ on\ rebalancing\ date$

$S_{i,t} = Circulating\ Supply\ of\ selected$ cryptocurrency$(i)\ on\ rebalancing\ date$

$S_{j,t} = Circulating\ Supply\ of\ selected$ cryptocurrency$(i)\ on\ previous\ rebalancing\ date$

$n = Number\ of\ the\ new\ constituent$

$o = Number\ of\ the\ old\ constituent$

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