Binance 30 Index Calculation Method

July 10, 2019

The top 30 cryptocurrencies of Binance Exchange by current market capitalization,except the stable ones, are selected and included in the index. The price-weighted index method is used in which the constituent cryptocurrencies are weighted in proportion to their circulating supply. Cryptocurrency with higher circulating supply has a greater influence on the overall movement of the index. Because of the continuous changing of circulating supply, the weights are re-balanced every day at 00:00 UTC and 12:00 UTC. Cryptocurrencies included in the index are automatically re-selected on the first day of the month. The index has been deployed on 10 July 2019 at 20:00 UTC. The initial value of the index has been set as 1000 points. The formula used to derive market capitalization and weights are:

$$M_i(t) = V_i(t) \times \gamma_i(t)$$

$$\omega_i(T) = \frac{\sqrt{M_i(T)}}{\sum_{i=1}^{30} \sqrt{M_i(T)}}$$

where $M(t)$ is the actual market cap at time t, $V_i(t)$ is the price of i^{th} cryptocurrency at time t,$\gamma_i(t)$ is the circulating supply of i^{th} cryptocurrency at time of t, $\omega_i(T)$ is the weight of i^{th} cryptocurrency at the time of re-balancing T,

Thus, the index $I(t)$ becomes as follows:

$$I(t) = \sum_{i=1}^{30} \omega_i \frac{V(t)}{V(T_0)}$$

where $V(T_0)$ is the initial re-balancing value when the index has been deployed.

Considering this index for investment is a key point to know when buying or selling altcoins. Also calculating beta for cryptocurrencies for Binance Exchange is possible, where beta is one of the most popular indicators of risk is a statistical measure. More read on https://www.investopedia.com/investing/beta-know-risk/