

## Index Types

Based on the objective and in line with the industry standards, Beta Financial Technologies offers equity INDEX calculation in price, gross total return and net total return versions. A Price Return INDEX (PR) reflects the market price movements of the INDEX COMPONENTS, disregarding any payments made in respect of the INDEX COMPONENT, such as ordinary CASH DISTRIBUTION.

**A Price Return INDEX** aims to reflect the price performance of a specific market, or a particular segment.

**A Net Total Return INDEX (NTR)** seeks to replicate the overall return from holding a portfolio consisting of the INDEX COMPONENTS. In order to achieve this aim, a Net Total Return INDEX considers payments, such as dividends, after the deduction of any withholding tax or other amounts an investor holding the INDEX COMPONENTS would typically be exposed to.

**A Gross Total Return INDEX (GTR)** seeks to replicate the overall return from holding a portfolio consisting of the INDEX COMPONENTS. In order to achieve this aim, a Gross Total Return INDEX considers payments made in respect of the INDEX COMPONENTS, such as dividends, without the deduction of any withholding tax or other amounts an investor holding the INDEX COMPONENT would typically be exposed to.

### Reinvestment of dividends

#### 1. Reinvestment back into the entire Index

Dividend payments are included in the Gross Total Return or Net Total Return Index. This methodology aims to account for the aggregate index dividend points in the underlying Beta FT Index constituents for a given time period. The total performance of an index is driven by the price performance and the dividend cash flows of the underlying constituents. The Dividend Points Index segregates the dividend cash flow of the underlying Beta FT Index from its total performance. Index dividend points express dividends paid in an index for a given day, represented as a fraction of the index level itself.

### CALCULATING THE DIVIDEND POINTS INDEXES

Dividend Points Indexes are designed to measure the income from regular cash distributions (cash dividend payments or capital repayments). The distributions are aggregated in the index and thus make up the total index performance of the Dividend Points Index. Dividend Points Index methodology cumulates regular cash distributions in the underlying parent index (“Parent

Index”) on the ex-date of such distributions. This is aligned with the treatment of regular cash distributions within Gross Total Return (GTR) or Net Total Return (NTR) methodology, noted in the Beta FT Index Management methodology.

Dividend Points Indexes are calculated for any given underlying Index as per the following steps

Calculation of Daily Index Dividend Points

Calculation of Dividend Points Index level

- Calculation of Daily Index Dividend Points (Index Divisor)

Security Dividend Points for underlying Index constituent with an ex-dividend date on a given day can be aggregated at index level to calculate the daily Index Dividend Points

$$IndexDivPoint_t = \sum_{i=1}^N SecurityDividendPoints_{i,t}$$

*N* Number of dividends paying securities in Index

Index Dividend Points express dividends paid in an index unit for a given day. They represent dividends as a fraction of the index level itself. Gross Index Dividend points can be calculated for a price index variant: they express the amount of dividends paid by a price index unit.

For every underlying Index constituent with an ex-dividend date on a given day, the Dividend Points can be calculated as

$$SecurityDividendPoints_t = \frac{(INOS * DividendPerShare_t * FX_t)}{PriceIndexDivisor_t}$$

***INOS*** Is the index number of shares, which is the number of shares of a security taken into account for the index calculation for day t.

***DividendPerShare<sub>t</sub>*** Is the gross dividend per share expressed in the same currency unit as the price per share of the security s with ex-dividend date at time t.

***FX<sub>t</sub>*** FX rate of the price currency of security s vs USD at time t. It is the value of foreign currency in USD.

***PriceIndexDivisor<sub>t</sub>*** is the Index Divisor for the price index level variant of the Parent Index

The index divisor for a day t is defined as the ratio of the initial market capitalization and the previous index level of the Parent Index

$$IndexDivisor_t = \frac{IndexInitialMarketCap_t}{IndexLevel_{t-1}}$$

**IndexInitialMarketCap<sub>t</sub>** Is the Initial Market Capitalization of the index at time t

**IndexLevel<sub>t-1</sub>** Is the Index level at time t-1

The Index Divisor does not change unless the index composition changes, e.g., in cases of corporate events and index additions / deletions where a change in index market capitalization is not due to performance and does not correspond to a change in the index level. The index divisor for day t is known after the close of day t-1 (the initial index market capitalization is calculated using prices and exchange rates as of day t-1 but constituents as of t).

The index unit describes the set of Parent Index constituents and corresponding quantities of total value equal to the index level. It can be derived by dividing the total index quantities by the index divisor.

## 2. Dividends reinvestment into dividends paying constituent

Following the declaration by the issuer of a Constituent "i" of a Dividend (other than any Non-Reinvested Dividend) (each as defined below), the Index Calculation Agent shall adjust the Unit Weight of such Constituent i on the Ex-Dividend Date (as defined below) in relation to such Dividend (or if such day is not an Index Calculation Day, the immediately following Index Calculation Day) in accordance with the formula set out below:

Dividends cause an adjustment of the DIVISOR. The new DIVISOR is calculated as follows:

$$UW_{i,ex} = UW_{i,ex-1} * (1 + \frac{Div_i * (1 - TaxRate_i)}{PCL_{i,ex} - Div_i})$$

Where :

**PCL<sub>i,ex</sub>** Closing price of Index component i on index trading date immediately preceding the applicable ExDividend Date

**UW<sub>i,ex</sub>** The Unit Weight of Constituent i on the applicable Ex-Dividend Date (or, if such day is not an Index Calculation Day, on the immediately following Index Calculation Day)

**UW<sub>i,ex-1</sub>** The Unit Weight of Constituent i on the Index Calculation Day immediately preceding the applicable Ex-Dividend Date

**TaxRate<sub>i</sub>** Withholding Tax Rate for i component on Index

**Div<sub>i</sub>** An applicable dividend amount i in base currency of the index calculation

Dividend payments are included in the gross total return or net total return INDEX. They cause an adjustment of the Index shares of the dividend paying Index component, the DIVISOR remains unchanged.

The new Index shares are calculated as follows:

$$S_{i,ex+1} = \frac{PCL_{i,ex} * UW_{i,ex}}{PCL_{i,ex} - Div_i * (1 - TaxRate_i)}$$

Where :

<b><i>PCL<sub>i,ex</sub></i></b>	Closing price of Index component i on index trading date immediately preceding the applicable ExDividend Date
<b><i>UW<sub>i,ex</sub></i></b>	The Unit Weight of Constituent i on the applicable Ex-Dividend Date (or,if such day is not an Index Calculation Day, on the immediately following Index Calculation Day)
<b><i>TaxRate<sub>i</sub></i></b>	Withholding Tax Rate for i component on Index
<b><i>Div<sub>i</sub></i></b>	An applicable dividend amount i in base currency of the index calculation