



# **Low Beta Sector Series**

Index Methodology June 2020

# **Version History**

No.	Date	Author	Comments
1.0	6/9/2020	E.Bae	Initial

#### Introduction

The Salt Low Beta Sector Series Indices ("Low Beta Series") measure the performance of stocks organized into specific sectors, inversely weighted by their sensitivity to moves in the broader market (beta) in an attempt to reduce risk while maintaining focused sector exposure. The Low Beta Series uses sectors defined by the Morningstar Global Equity Classification Structure ("GECS") mapped to each component of the Solactive US Large & Midcap Index (the top 1000 US stocks ranked by market capitalization, the "Base Index").

In weighting the indices, the Low Beta Series uses truBeta™, a Salt Financial proprietary beta forecast that uses a blend of long-, medium-, and short-term interval return data powered by a machine learning algorithm designed to produce a far more accurate forecast for the next quarter in comparison to traditional methods. By incorporating more recent data and correcting for the bias in estimating high and low beta stocks, truBeta is intended to provide investors with what we believe is a superior forecast of the market risk embedded in their portfolios.

The Low Beta Series consists of 10 individual Sector Indices with their respective inverse beta weightings that roll up into a Composite Index weighted by the market capitalization of each sector. Each Sector Index uses all components of the Base Index that map to the corresponding GECS sector—only the weighting differs.

All indices in the Low Beta Series are rebalanced quarterly at the close on the third Friday of March, June, September, and December.

# Low Beta Sector Series - Overview

Index Series and Tickers	Salt Low Beta Composite (SFLBC) Salt Low Beta Basic Materials (SFLBB) Salt Low Beta Consumer Cyclical (SFLBY) Salt Low Beta Consumer Defensive (SFLBP) Salt Low Beta Energy (SFLBE) Salt Low Beta Financial Services (SFLBF) Salt Low Beta Health Care (SFLBV) Salt Low Beta Industrials (SFLBI) Salt Low Beta Real Estate (SFLBR) Salt Low Beta Technology & Communications (SFLBT) Salt Low Beta Utilities (SFLBU)
Base Index	Solactive US Large & Midcap Index (top 1000 US stocks ranked by market capitalization)
Sector Classifications	Morningstar Global Equity Classification Structure (GECS)  Technology and Communication Services are combined to form a single sector in the Series
Calculation Agent	Salt Financial Indices, LLC
	Upon licensing for an exchange-traded product or other investment vehicle, calculation responsibilities will be transferred to Solactive AG.
Multiple Classes and Dual Listing	Companies with multiple classes of stock may be represented by more than one class in the index as long as the class meets the other criteria for inclusion.  Companies that are dually-listed on more than one exchange are only represented once by the listing market with the highest volume in that stock (typically the primary listing).
Rebalance Dates	The Effective Date is after the close on the third Friday of March, June, September, and December with the Selection Date five (5) business days prior to the Effective Date.

#### **Sector Index Construction**

Constructing the Low Beta Sector Indices involves the following steps:

- Mapping all components of the Base Index to GECS classifications
- Sorting the Base Index into groups by top level sector GECS
- Calculating truBeta forecasts for every stock in the sector groupings
- Forming portfolios with all components in each sector grouping, weighted by the inverse of their truBeta score, squared

#### 1. Mapping to Sectors

Each Low Beta Sector Index is derived from all components of the Base Index with the corresponding GECS classification. To calculate historical index values, GECS classifications were mapped to Base Index components back to March 19, 1999 (the "Base Date"). The Base Index components are mapped to GECS using a snapshot on the Selection Date at each quarterly rebalancing.

## 2. Sector Groupings

The Base Index is grouped by top level sectors at each rebalancing with every component included. Due to its small size historically and overlap of some industries, the Communication Services sector is combined with Technology to form Technology & Communications. The 10 individual Low Beta Sector Indices are as follows:

- Basic Materials
- Consumer Cyclical
- Consumer Defensive
- Energy
- Financial Services
- Health Care
- Industrials
- Real Estate
- Technology & Communications
- Utilities

# 3. Calculating truBeta Scores

Beta forecasts for each member in the sector groups are calculated, based on historical long-, medium-, and short-term returns for the stock using Salt Financial's truBeta methodology. Although the indices are sector-based, the truBeta scores for all stocks are measured using sensitivity to the broader market (using the SPDR S&P 500 ETF [SPY] as proxy) and not the individual sectors.

## 4. Inverse Weighting

The sector groupings form the Sector Indices with each member of the sector inversely weighted by its truBeta score, squared.

$$Weight_i = \frac{truBeta_i^{-2}}{\sum_{i \in GECS} truBeta_i^{-2}}$$

#### **Index Maintenance**

#### Rebalancing

The Sector Indices are rebalanced *quarterly* according to the following timeline:

- Constituents use prices and other criteria as of the close of trading on the Selection Date.
- Weighting for each constituent in each Sector Index is based on the price at the close on the Selection Date.<sup>1</sup>
- Adjustments to capture the additions, deletions, and rebalancing weights of existing components are as of the close of trading on the Effective Date.

The Index Committee may change the date of a given rebalancing for reasons including market holidays or extraordinary events such as technology or other major market disruptions occurring on or around the scheduled rebalancing date. Any such change will be announced with proper advance notice where possible.

The Index Committee reserves the right to make exceptions when applying the methodology if the need arises. If any changes differ from the stated methodology, clients will receive sufficient notice, whenever possible.

#### Corporate Actions

in-off company remains in the index until
ext rebalance date.
shares are multiplied by and the price is ed by the split factor.
rice of the stock is reduced by the per special dividend amount after the close ding on the day before the ex-date.
tock is dropped from the index with no
(

<sup>&</sup>lt;sup>1</sup> Upon transfer of calculation duties to Solactive, the index share weightings will be fixed on the Selection Date. Since the weighting is determined a week prior, the actual index weights at the close on the Effective Date may differ from due to market movements.

resulting in deletion of the stock as a listed equity on a public equity exchange.	Absolute weights of the remaining index components change but the relative weightings stay the same.
	In the event there is no achievable market price for a stock being deleted due to bankruptcy, suspension or other event, it can be removed at zero or some other price at the discretion of the Index Committee.

## Low Beta Composite Index Construction

The Low Beta Composite is structured as an "index of indices" consisting of all Low Beta Sector Indices, and by extension all stocks in the Base Index. The construction involves the following steps:

#### 1. Calculating Sector Weights

As of the close of trading on Selection Date of each quarterly rebalancing, divide the total market capitalization of the stocks in each Sector Index by the total market capitalization of the Base Index to arrive at the Sector's weight in the composite index.

$$Weight_{sector} = \frac{Market Cap_{sector}}{Market Cap_{base index}}$$

#### 2. Forming the Composite

To create the composite, simply allocate each Sector Index proportional to its weight calculated above at the closing index values on the Effective Date.

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