



Total Sector Low Beta Indices

Index Methodology
July 2020

Version History

No.	Date	Author	Comments
1.0	6/9/2020	E.Bae	Initial
1.1	7/6/2020	E.Bae	Update Composite calculation

Introduction

The Salt Total Sector Low Beta Indices (“Sector Indices”) 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 Sector Indices 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”).

For weighting, the Sector Indices 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 Total Sector Low Beta Indices consists of 10 individual Sector Indices that roll up into a composite, the Salt Sector-Neutral Low Beta Index. 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 Total Sector Low Beta Indices are rebalanced quarterly at the close on the third Friday of March, June, September, and December.

Total Sector Low Beta Indices - Overview

Index Series and Tickers	<p>Salt Sector-Neutral Low Beta (SFLBC) Salt Basic Materials Total Sector (SFLBB) Salt Consumer Cyclical Total Sector (SFLBY) Salt Consumer Defensive Total Sector (SFLBP) Salt Energy Total Sector (SFLBE) Salt Financial Services Total Sector (SFLBF) Salt Health Care Total Sector (SFLBV) Salt Industrials Total Sector (SFLBI) Salt Real Estate Total Sector (SFLBR) Salt Technology & Communications Total Sector (SFLBT) Salt Utilities Total Sector (SFLBU)</p>
Base Index	<p>Solactive US Large & Midcap Index (top 1000 US stocks ranked by market capitalization)</p>
Sector Classifications	<p>Morningstar Global Equity Classification Structure (GECS)</p> <p>Technology and Communication Services are combined to form a single sector</p>
Calculation Agent	<p>Salt Financial Indices LLC</p> <p>Upon licensing for an exchange-traded product or other investment vehicle, calculation responsibilities will be transferred to Solactive AG.</p>
Multiple Classes and Dual Listing	<p>Companies with multiple classes of stock <i>may be represented by more than one class in the index</i> as long as the class meets the other criteria for inclusion.</p> <p>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).</p>
Rebalance Dates	<p>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.</p>

Sector Index Construction

Constructing the 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 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 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.

$$w_i = \frac{truBeta_i^{-2}}{\sum_{i \in Sector} truBeta_i^{-2}}$$

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.¹
- 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

Action	Adjustment
Spin-off	A spun-off company remains in the index until the next rebalance date.
Stock Split	Index shares are multiplied by and the price is divided by the split factor.
Special Dividends	The price of the stock is reduced by the per share special dividend amount after the close of trading on the day before the ex-date.
Delisting, acquisition, or any other corporate action	The stock is dropped from the index with no additions until the next quarterly rebalancing.

¹ 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.

<p>resulting in deletion of the stock as a listed equity on a public equity exchange.</p>	<p>Absolute weights of the remaining index components change but the relative weightings stay the same.</p> <p>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.</p>
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Sector-Neutral Low Beta Index Construction

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

1. *Calculating Sector truBeta Scores*

As of the close of trading on the Selection Date of each quarterly rebalancing, calculate the weighted truBeta score of each Sector Index by taking a weighted sum of each Sector’s constituent truBeta.

$$truBeta_{sector} = \sum_{i \in Sector} (w_i \times truBeta_i)$$

2. *Forming the Composite*

To create the composite, weight each Sector Index by the inverse of its Sector truBeta score, squared, at the closing index values on the Effective Date.

$$w_{sector} = \frac{truBeta_{sector}^{-2}}{\sum truBeta_{sector}^{-2}}$$

Disclaimers

All information for an index prior to its Inception Date is back-tested, based on the methodology that was in effect on the Inception Date. Back-tested performance, which is hypothetical and not actual performance, can frequently result in material differences between back-tested results and actual results achieved by an investment strategy.

Past performance of an index is not a guarantee of future results. Charts, graphs, and other performance indicators are provided for illustrative purposes and may reflect hypothetical historical performance. The back-test period does not necessarily correspond to the entire available history of any particular index.

Back-tested calculations are generally prepared with the benefit of hindsight. No hypothetical calculation can comprehensively account for all the factors that may impact actual performance. Index returns shown do not represent the results of any strategy tracking the index, including any sales charges, commissions, or other fees charged to purchase securities, fund, or other investment vehicles.

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