



# truVol® US Large Cap 5

Index Methodology  
August 2021

## Version History

No.	Date	Author	Comments
1.0	7/31/2021	E.Bae	Initial

## Introduction

The Salt truVol® US Large Cap 5 Index (the “Index”; ticker: SFSP5) is designed to deliver exposure to the SPDR S&P 500 ETF (SPY) while targeting a constant 5% level of volatility. The index uses the truVol® Risk Control Engine (RCE) to dynamically allocate between SPY and non-numerated cash in aiming to achieve the volatility target. Developed by Salt Financial, the RCE is designed to offer higher levels of responsiveness and accuracy in targeting volatility for risk-controlled indices. The mechanism generally allocates more to SPY when volatility falls and more to cash when it rises.

The index is rebalanced daily and calculated in excess of a daily accrual of the Federal Funds Effective Rate (Excess Return).

Although the Index is designed to target a specific risk level and subsequently allow more consistent pricing for structured products and fixed-indexed annuities, there are no guarantees the Index will achieve these results.

## Components

The index allocates notional exposure to the SPDR S&P 500 ETF (SPY), in excess of the risk-free rate, to arrive at the final index value.

Underlying Component	Ticker
SPDR S&P 500 ETF	SPY

## Excess Return Calculations

Each Underlying Component is transformed into an excess return series on a daily basis based on the following formula. These series serve as the building blocks for the final index.

$$ER\ Level_t^i = ER\ Level_{t-1}^i * (1 + ER_t^i);$$
$$ER_t^i = \left( \frac{Underlying\ Component_t^i}{Underlying\ Component_{t-1}^i} - 1 \right) - \frac{RFR_{t-1}}{360} * days(t, t - 1)$$

Where

$ER\ Level_t^i$  = Excess return level of Underlying Component  $i$  on day  $t$

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$Underlying\ Component_t^i$  = Underlying Component level on day  $t$

$RFR_t$  = Fed Funds on day  $t$

$days(t, t - 1)$  = Actual day count between day  $t$  and day  $t - 1$  (previous business day)

## Rebalancing

The Index is rebalanced daily at market close and employs the [truVol® Risk Control Engine \(RCE\)](#) to determine the component weights. In an effort to consistently target the desired level of risk, the index has the ability to scale up notional exposure, subject to a maximum of 150%. In other words, when volatility is below the target level, the index has the potential to apply leverage. Alternatively, when volatility is above the target level, the index may reduce exposure. This scaling mechanism, denoted as the “leverage ratio”, is calculated as:

$$Leverage\ Ratio_t = Min\left(1.5, \frac{5\%}{truVol_t}\right)$$

## Excess Return Index Calculation

On each NYSE business day, the excess return level is calculated as follows:

$$ER\ Level_t = ER\ Level_{t-1} * (1 + ER_t);$$

$$ER_t = ER_t^i * Leverage\ Ratio_{t-2}$$

Where

*ER Level<sub>t</sub>* = Excess return level of the Index on day t

*ER<sub>t</sub>* = Excess return of the Index on day t

*ER<sub>t</sub><sup>i</sup>* = Excess return of the Underlying Component i on day t

(See Excess Return Calculation Section)

*Leverage Ratio<sub>t</sub>* = Leverage Ratio on day t

### **Unscheduled Market Closures**

In situations where an exchange is forced to close early due to unforeseen events, such as computer or electric power failures, weather conditions or other events, Salt will calculate the closing price of the indices based on (1) the closing prices published by the exchange, or (2) if no closing price is available, the last regular trade reported for each security before the exchange closed. If the exchange fails to open due to unforeseen circumstances, Salt treats this closure as a standard market holiday. The index will use the prior day's closing prices and shifts any corporate actions to the following business day.

## Disclaimer

*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.*

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