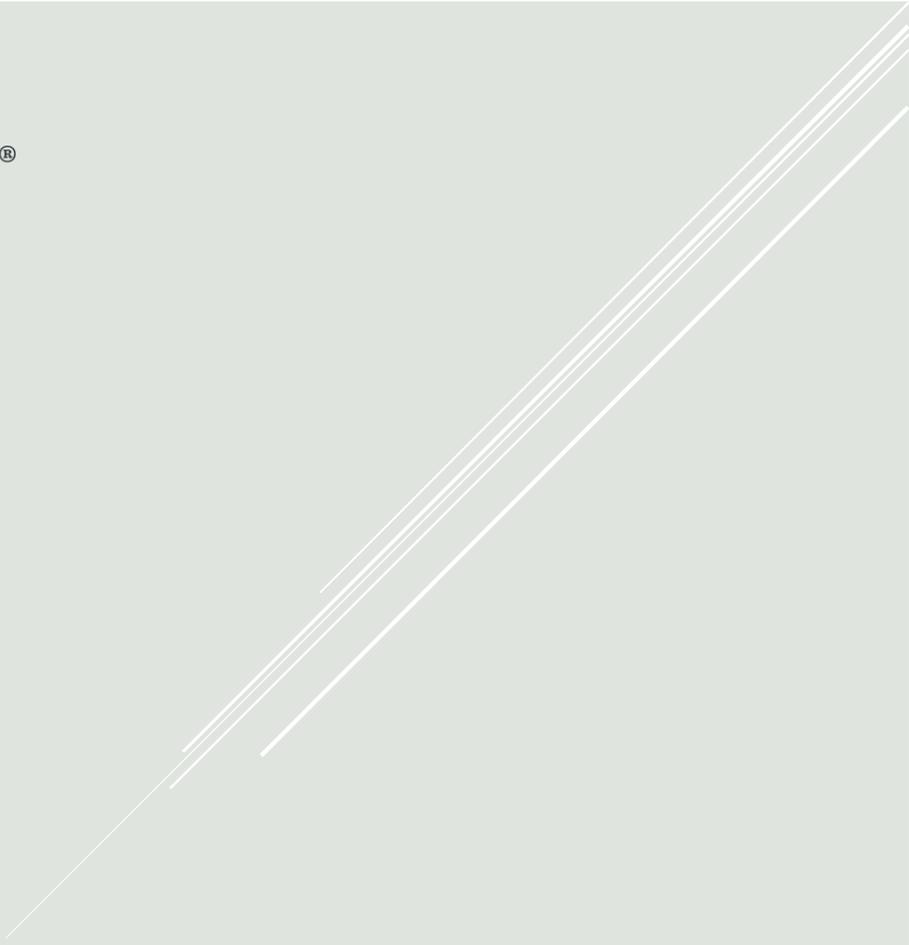


**save**<sup>®</sup>



SAVE<sup>®</sup> GLOBAL SHARIAH INDEX

# Save® Global Shariah Index

## 1 Overview

The Save® Global Shariah Index (the “Index”) is a rules-based investment strategy that represents the performance of a dynamic portfolio containing global developed market stocks and gold.

The eligible stock universe is determined on a quarterly basis by Ratings Intelligence, which carries out filtering according to Shariah guidelines, with the final stock weights determined by Solactive according to a pre-defined set of rules. The gold component is a gold ETF backed by spot gold; there is not use of futures.

Exposures across the asset classes are determined based on a combination of macroeconomic and technical signals.

The sponsor of the Index is Save® Advisers, LLC (the “Index Sponsor”). The launch date of the Index is November 13 2023, and closing levels for the Index are disseminated on Bloomberg Page SAVESHA1. The inception date of the Index is 7/31/2008, and the level of the Index is set to 100 on this day.

Each day, macroeconomic data relating to variables such as interest rates, inflation and wider financial conditions, are analyzed by the Calculation Agent. The result of this analysis, along with measurements of each asset’s trend and volatility, determines the allocations to 2 components (equity and gold). For example, an environment of high and rising inflation expectations, along with high equity volatility, would be considered a poor environment for equities.

The calculation of these signals is carried out systematically by the Index according to a predefined set of rules.

The key elements of the methodology are as follows:

The Index is calculated by Solactive AG, the Calculation Agent, and rebalanced on each eligible rebalance day (“Rebal Day”) as defined in Index Parameters.

First, the relative preference of the two components is determined by a combination of macroeconomic analysis, and assessment of the trend, and volatility, of each asset. This is all carried out by the Calculation Agent on each Index Business Day, and leads to the determination of the pre-volatility target portfolio (or, “sub portfolio”).

Second, the volatility control mechanism acts on a daily basis (and will lead to rebalances on eligible rebalance days); the Index considers the expected volatility of the newly determined pre-volatility target portfolio, and adjusts its exposure to that portfolio in such a way to target a consistent realized volatility of 4%. An additional layer of volatility control is also then overlaid.

The Index rules only allow for positive exposure to the components, which are stocks (within an index), and gold (accessed via a gold ETF backed by spot gold).

The Index applies the following costs each day to determine the Index level: funding cost (SOFR).

## 2 Risk Factors

The following risk factors are not a complete list or explanation of all the risks associated with the Index. All persons referring to or using the Index in connection with any investment in an instrument linked to or associated with the Index should seek advice from their legal, tax, accounting, and other advisors.

An investment in an instrument related to the Index may not be a suitable investment for all investors.

Instruments related to the Index are complex financial instruments and such instruments may be purchased as a way for you to incur particular market exposures or seek enhanced yield with an appropriate addition of risk to your overall portfolio. You should not invest in complex financial instruments unless you have the expertise to evaluate how such an instrument may perform under changing conditions, the resulting effects on the value of such instrument and the impact this investment will have on your overall investment portfolio.

**Each investor, together with their advisors, must determine the suitability of an investment in an instrument related to the Index considering his, her or its own circumstances.**

Each investor considering an investment in an instrument related to the Index should:

- have sufficient knowledge and experience to make an evaluation of an investment in an instrument related to the Index and the merits and risks of investing in an instrument related to the Index;
- have access to, and knowledge of, appropriate analytical tools to evaluate, in the context of his, her or its particular financial situation, an investment in an instrument related to the Index and the impact such investment will have on the overall investment portfolio;
- have sufficient financial resources and liquidity to bear all of the risks of an investment in an instrument related to the Index, including the risk of loss of such investment and any currency risk where the return, if any, on his, her or its investment is payable in one or more currencies, or where the currency for principal or premium or return, if any, on the investment is different from the investor's currency;
- understand the terms of the investment in an instrument related to the Index and be familiar with the behavior of the Index, and the components thereof and financial markets generally; and
- be able to evaluate possible scenarios for economic, interest rate and other factors that may affect the investor's investment and his, her or its ability to bear the applicable risks.

Terms used in this section but not otherwise defined here shall have the meanings given to them in Section 3.

### **Proprietary and Rules-Based Trading Index**

The Index follows a notional rules-based proprietary trading algorithm of the Index Sponsor that operates based on pre-determined rules. Accordingly, potential investors in financial products which are linked to the performance of the Index should determine whether those rules as described in the Description are appropriate considering their individual circumstances and investment objectives. No assurance can be given that the algorithm on which the Index is based will be successful or that the Index will outperform any alternative algorithm that might be employed.

### **No Recourse to Assets**

The Index is purely synthetic. The exposure to each Component is purely notional and will exist only in the records held by the Index Sponsor. There are no assets to which any person is entitled, or in which any person has any ownership interest, or which serve as collateral for any investment product related to the Index. No investor in instruments linked to this Index will have any rights in respect of any components of any Component.

### **Simulated Operating History**

The Index will be first calculated on a live basis on or around the Live Date and therefore lacks actual historical performance. The Calculation Agent and the Sponsor have retrospectively calculated the closing levels of the Index from the Index Inception Date to but excluding the Live Date. However, because the Index will not be calculated before the Live Date, all such retrospective closing levels are simulated and must be considered hypothetical and illustrative only. Simulated data prior to the Live Date may be constructed using certain procedures that vary from the procedures used to calculate the Index following its establishment and based on certain assumptions that may not apply in the future. These procedures may include, but are not limited to, the use of proxies to extend historical component time series. The actual performance of the Index may be materially different from the results presented in any Simulated Operating History relating to the Index. Past performance should not be considered indicative of future performance.

### **Future Index Performance**

No assurance can be given that the strategies employed by the Calculation Agent and/or the Sponsor will be successful or that the return on the Index, as demonstrated by the Simulated Operating History, will continue in the future. The Simulated Operating History should not be considered indicative of future performance of the Index as markets are unpredictable. There can be no assurance that the Index will generate positive returns or outperform any benchmark index or alternative strategy.

### **Volatility Control and Leverage**

The Index has an automatic feature that aims to maintain a roughly constant level of realized volatility over time, and protect against some of the inherent volatility exhibited by the Components and, by consequence, the levels of the Index. This is achieved by reducing exposure to the underlying portfolio of Components in times of high expected volatility, and by increasing exposure to the underlying portfolio of Components in time of low expected volatility. Subsequently, the Index can maintain leverage (where total gross exposure is greater than 100%). This feature may not be successful, and this may have an impact on the performance of the Index.

### **Index Allocation Based on Macroeconomic Signals and Technical Measures**

In order to determine the Index's allocation, the Index utilizes analysis of macroeconomic variables like interest rates and inflation. This analysis is carried out by the Calculation Agent. For example: if interest rates are increasing, the Index may reduce its equity weight allocation; if inflation is increasing, the index may increase its commodity weight allocation.

Additionally, the Index uses measures of volatility and trend, for each component, to determine its weighting.

There can be no assurance that a strategy based on macroeconomic analysis, volatility or trend, will generate positive returns or outperform any benchmark index or alternative strategy.

### **Termination of the Index**

The Sponsor and the Calculation Agent are under no obligation to continue the calculation, publication, and dissemination of the Index. The Index may be terminated at any time by the Sponsor. Should the Index cease to exist, this may have a negative impact on the return on any investment in an instrument, the return on which is linked in whole or in part to the Index.

### **Amendment or Modification to the Description**

This Description, the methodology and rules relating to the Index may be amended, modified or adjusted from time to time by the Calculation Agent and/or the Sponsor, as applicable, without the consent of or notice to investors in

instruments linked to the Index. Any such amendment may have an adverse effect on the level of the Index. The Index may be renamed in the future (although this would not change the economic profile of the Index).

### **Discretion of Sponsor and Calculation Agent**

The Index confers on the Calculation Agent and/or the Index Sponsor, as applicable, discretion in making certain determinations, calculations, and corrections from time to time. Although any such determinations, calculations and corrections must be made by the Calculation Agent and/or the Sponsor in good faith, the exercise of such discretion in the making of calculations, determinations and corrections may adversely affect the performance of the Index. The Sponsor shall determine in good faith whether any such corrections shall apply retrospectively or from the relevant date forward. In the course of the normal operation of the Index, all calculations are systematic with no discretion.

### **Potential Conflicts of Interest**

Potential conflicts of interest may exist in the structure and operation of the Index and the course of the normal business activities of the Calculation Agent and/or the Sponsor and any of their respective affiliates or subsidiaries or their respective directors, officers, employees, representatives, delegates or agents (each a “person” for the purposes of this Description).

During the course of their normal business, each person may enter into or promote, offer or sell transactions or investments (structured or otherwise) linked to the Index and/or any of the notional trading positions. In addition, any person may have, or may have had, interests or positions, or may buy, sell or otherwise trade positions in or relating to the Index or any of the notional trading positions, or may invest or engage in transactions with other entities, or on behalf of such entities relating to any of these items. Such activity may or may not have an impact on the Index Level but all investors reading this Description should be aware that a conflict of interest could arise where anyone is acting in more than one capacity, and such conflict may have an impact, positive or negative on the Index Level. Neither the Calculation Agent nor the Sponsor nor any other person has any duty to consider the circumstances of any entities when participating in such transactions or to conduct themselves in a manner that is favorable to anyone with exposure to the Index. Solactive AG is the initial Index Calculation Agent of the Index.

### **Market Risks**

The performance of the Index is dependent on the performance of the Components and their relevant components. Consequently, investors in financial products linked to the Index should appreciate that their investment is exposed to the performance of the components of the Components. Price movements in components in each Component can be volatile and can be affected by a wide range of factors, which will affect the level of the Index. Historical performance of each Component, and the Index should not be considered indicative of future performance.

### **Equity Risk**

The Index universe includes a global equity index. Prospective investors should understand that investment in instruments relating to equity markets may be negatively affected by global economic, financial and political developments, and that such developments among other things may have a material effect on the value of the performance of the Index.

### **Commodity Risk**

The Index universe includes a gold ETF. Commodities and commodity-index linked securities may be affected by changes in overall market movements, changes in interest rates, and other factors such as weather, disease, embargoes, or political and regulatory developments, as well as trading activity of speculators and arbitrageurs in the underlying commodities.

**Currency Risk**

The equity index component includes global stocks, while the index measured in USD. Currency risk therefore affects stocks where the local currency is not USD; if the USD strengthens/weakens versus the local currency of a given stock, then the value of that stock when viewed in USD terms will decrease/increase. There are many possible drivers of currency exchange rates, and the Index may gain or lose from its currency exposure, depending on the direction of exchange rate movements.

**Allocation Risk**

The Index uses a combination of signals on a daily basis to determine a preferred asset allocation. These measures consider the perceived relative attractiveness of each Component on a standalone basis, as well as how these Components should be combined in a portfolio or Index. As a result, it is possible that the Component-specific signals determine relative preferences across the Components that lead the Index to decline in value, such as when the preferred Components (as indicated by the signals) underperform versus their peers or in absolute terms. In addition, the Index considers how the Components may interact with each other, by considering measures such as correlations in seeking to allocate weights according to how much risk a Component contributes to the overall portfolio (as opposed to considering the risk if each Component in isolation). As a result, if the interactions between Components differ from expectations (for example, Components expected to exhibit negative correlation in fact exhibit positively correlated behavior), this could negatively or positively impact the index because the actual, realized risk contribution from each Component could differ significantly from what was expected.

### 3 Index Calculation

#### 3.1 Index Parameters

Index Business Days	Scheduled trading days for NYSE
Rebal Days	Scheduled trading days for these stock exchanges (all must be open): New York, London, Tokyo, Paris, Toronto, SIX (Swiss), Frankfurt, Australia, Amsterdam, Hong Kong, Copenhagen, Stockholm, Singapore
vol_target	4%
Index Inception Date, t=1	31 July 2008
Data Start Date for Components	31 Dec 2007
Data Start Date for Macro Data	11 Jan 2002
$E^{max}$	200%
$E^{min}$	25%
$E_{change}^{max}$	25%
$E_{thresh}$	0%
$VAR^{min}$	0.75
$VAR^{max}$	1.25
$VAR^{target}$	0.0016
$VAR^{window}$	252
$VAR^{lookback}$	126

#### 3.2 Components

n	Component	Ticker	Rate	Rebal Cost ( $c_n^{rebal}$ )	wgt_cap ( $w_n^{cap}$ )	wgt_floor ( $w_n^{floor}$ )	max_rebal ( $max\_rebal_n$ )
1	Equity	SOLSHARN	SOFR	0	100%	0	10%
2	Gold	GLD	SOFR	0	100%	0	10%

For component n=1: before its inception date, a proxy is used.

#### 3.3 Investable Series and Excess Returns

Total Return series:

Levels are retrieved for all Index Business Days for all Components from the *Data Start Date for Components* onwards; if a Component does not have a level for a given Index Business Day, then the level from the prior Index Business Day is used.

For all Components,

$Component_{n,t}^{TR}$  is set to a level of 1.0 at the Data Start Date for Components  
 $Component_{n,t}^{ER}$  is set to a level of 1.0 at the Data Start Date for Components

Calculation of  $Component_{n,t}^{TR}$  :

For Components comprised of a single *Ticker* (in this case, all Components):

$$Component_{n,t}^{TR} = Component_{n,t-1}^{TR} \times \left( \frac{Level_{i,t}^{NTR}}{Level_{i,t-1}^{NTR}} \right)$$

Where  $Level_{i,t}^{NTR}$  is the NTR (net total return, i.e. after local dividend tax where applicable), corporate action adjusted level of the underlying.

Excess Return Series:

For all Index Components,

$Component_{n,t}^{ER} = Component_{n,t-1}^{ER} \times \left( \frac{Component_{n,t}^{TR}}{Component_{n,t-1}^{TR}} - \frac{Rate_{t-1}}{360} \times Act(t, t-1) \right)$ , where  $Act(t, t-1)$  returns a count of the number of calendar days from t-1 (inclusive) to t (exclusive), and  $Rate_{t-1}$  means the level of SOFR (ticker: SOFRRATE) as of the prior Index Business Day; prior to 2 April 2018, this was proxied with the Federal Funds Effective Rate (ticker: FEDL01).

Excess Returns:

For all Index Components, the *b-day* Excess Return is determined as:

$$r_{t,n,b} = Component_{n,t}^{ER} / Component_{n,t-b}^{ER} - 1 \quad (\text{if } b \text{ is not specified it is assumed } b=1)$$

### 3.4 Index Level Calculation

The Index level for Index Business Day,  $t$ , is determined as:

$$\begin{aligned} \text{For } t = 1, & \quad I_t = 100 \\ \text{For all subsequent } t, & \quad I_t = I_{t-1} \times (1 + E_{t-1} \times R_t - C_{t, \text{rebal}}) \end{aligned}$$

Where  $E_t$  is determined as:

$$\text{For } t \leq 0, \quad E_t = \min(E^{\text{max}}, \max(E^{\text{min}}, E_{t, \text{target}}))$$

For all subsequent  $t$ ,

If  $t$  is not a Rebal Day, or  $\text{abs}(\min(E_{t, \text{max}}, \max(E_{t, \text{min}}, E_{t, \text{target}})) - E_{t-1}) < E_{\text{thresh}}$ :

$$\begin{aligned} \text{Then:} & \quad E_t = E_{t-1} \\ \text{Else:} & \quad E_t = \min(E_{t, \text{max}}, \max(E_{t, \text{min}}, E_{t, \text{target}})) \\ \text{Where:} & \quad E_{t, \text{target}} = VAF_{t-2} \times VT_t \\ & \quad E_{t, \text{max}} = \min(E^{\text{max}}, E_{t-1} + E^{\text{max change}}) \\ & \quad E_{t, \text{min}} = \max(E^{\text{min}}, E_{t-1} - E^{\text{max change}}) \end{aligned}$$

Where  $C_{t, \text{rebal}}$  is determined as:

$$\text{For all } t, \quad C_{t, \text{rebal}} = 0$$

Where:  $R_t = R_{t, \text{gross}}$

$$R_{t, \text{gross}} = \sum_{n=1}^2 (r_{t, n} \times w_{t-1, n})$$

Where  $r_{t, n}$  means the 1-day, corporate action adjusted (where applicable), Excess Return of Index Component,  $n$ , for Index Business Day,  $t$ ; where *Excess Return* means dragged on a daily basis by the *Rate* given in the *Components* table.

Where  $w_{t, n}$  means the final sub-portfolio weight (i.e. pre-vol-target portfolio weight) of Index Component,  $n$ , for Index Business Day,  $t$ , determined as:

$$\begin{aligned} \text{For } t \leq 0, & \quad w_{t, n} = \min(w_n^{\text{cap}}, \max(w_n^{\text{floor}}, w_{t, n}^{\text{decomp\_target}})) / E_t \\ \text{Thereafter:} & \quad w_{t, n} = w_{t, n}^{\text{decomp}} / E_t \\ \text{Where:} & \\ & \quad \text{If } t \text{ is not a Rebal Day, then } w_{t, n}^{\text{decomp}} = w_{t-1, n}^{\text{decomp}} \\ & \quad \text{Else: } w_{t, n}^{\text{decomp}} = \min(w_{t, n}^{\text{max}}, \max(w_{t, n}^{\text{min}}, w_{t, n}^{\text{decomp\_target}})) \\ \text{Where:} & \quad w_{t, n}^{\text{max}} = \min(w_n^{\text{cap}}, w_{t-1, n}^{\text{decomp}} + \text{max\_rebal}_n) \\ & \quad w_{t, n}^{\text{min}} = \max(w_n^{\text{floor}}, w_{t-1, n}^{\text{decomp}} - \text{max\_rebal}_n) \\ \text{Where:} & \quad w_{t, n}^{\text{decomp\_target}} = E_t \times w_{t, n}^{\text{Sub\_Portf\_Target}} \\ \text{And} & \quad w_{t, n}^{\text{Sub\_Portf\_Target}} = \frac{2.5\%}{V_{t-2, n}} (0.2 + 0.25 Q_{t-2, n} + J_{t-2, n}) \end{aligned}$$

Where  $V_{t,n}$ ,  $Q_{t,n}$  and  $J_{t,n}$  are determined as:

Macro Score,  $J$ :

In relation to a Signals Table, “ $T$ ” refers to all days for which the signals are produced, which will be all weekdays; the Signals Table is determined in a fully systematic manner by the Calculation Agent, utilizing the following Macro Data from the US Federal Reserve and Treasury:

s	Name	Source
1	Fed Funds Effective Rate	FRED (Federal Reserve Economic Data)
2	3-month Daily Treasury Par Yield Curve Rate	U.S. DEPARTMENT OF THE TREASURY
3	2-year Daily Treasury Par Yield Curve Rate	U.S. DEPARTMENT OF THE TREASURY
4	10-year Daily Treasury Par Yield Curve Rate	U.S. DEPARTMENT OF THE TREASURY
5	5-year Daily Treasury Par Real Yield Curve Rates	U.S. DEPARTMENT OF THE TREASURY
6	10-year Daily Treasury Par Real Yield Curve Rates	U.S. DEPARTMENT OF THE TREASURY
7	5-year US Inflation Breakeven	FRED (Federal Reserve Economic Data)
8	10-year US Inflation Breakeven	FRED (Federal Reserve Economic Data)
9	5-year forward 5-year US Inflation Breakeven	FRED (Federal Reserve Economic Data)
10	US CPI	FRED (Federal Reserve Economic Data)
11	NFCI	FRED (Federal Reserve Economic Data)
12	Credit Spreads	FRED (Federal Reserve Economic Data)
13	Oil	FRED (Federal Reserve Economic Data)
14	US Dollar	FRED (Federal Reserve Economic Data)

The static matrix,  $response^{q,n}$ , is populated for 60 signals,  $q$ , across 2 components,  $n$ .

For the Components, define the daily Macro Score as:

$$J_{t,Equity} = \max \left( 0, \min \left( 1.5, \frac{6 + \sum_{q=1}^{60} signal_{value}_t^q * response^{q,Equity}}{6} \right) \right)$$

$$J_{t,Gold} = \max \left( 0, \min \left( 1.5, \frac{0 + \sum_{q=1}^{60} signal_{value}_t^q * response^{q,Gold}}{3} \right) \right)$$

Trend Score,  $Q$ :

$$Q_{t,n} = \frac{1}{126} \sum_{x=1}^{126} sign(Level_{n,t} - Level_{n,t-x}), \text{ where } sign(x) \text{ is a function that returns a value of } +1 \text{ if } x \geq 0, \text{ else it returns } 0$$

Volatility,  $V$ :

$$V_{t,n} = \min \left( 0.3, \max \left( 0.05, \left[ 252 \times average[r_{t,n}^2]^{EWM(lookback=42, half-life=21)} \right]^{0.5} \right) \right),$$

where:  $average[x_t]^{EWM(lookback=42, half-life=21)}$  means the exponentially weighted average of the most recent 42 daily values of  $x_t$ , up to and including the value on day  $t$ , where the exponential weighting has a half-life of 21 Index Business Days.

Where:  $VT_t = vol\_target / HV_t^{sub\_portf}$

$$\text{Where: } HV_t^{sub\_portf} = 0.5 \times \left( \left[ 252 \times average \left[ \left( HRets_t^{sub\_portf,42,1} \right)^2 \right]^{EWM(half-life=21)} \right]^{0.5} + \left[ 126 \times average \left[ \left( HRets_t^{sub\_portf,42,2} \right)^2 \right]^{EWM(half-life=21)} \right]^{0.5} \right)$$

Where sub-portfolio Historical Returns ( $HRets_t^{sub\_portf,a,b}$ ) is determined for  $t = 0$  onwards, as a series of length  $a$ ; specifically, for each  $t$ ,  $HRets_t$  is a series of  $b$ -day sub-portfolio returns assuming that the

target weights,  $w_{t,n}^{Sub\_Portf\_Target}$ , had been fixed in place for the  $a+b$  days up to and including  $t-2$ , such that:

$$HRet_t^{sub\_port,a,b} = \sum_{n=1}^2 \left[ w_{t,n}^{Sub\_Portf\_Target} \times \begin{pmatrix} r_{t-2,n,b} \\ r_{t-3,n,b} \\ \vdots \\ r_{t-(a),n,b} \\ r_{t-(a+1),n,b} \end{pmatrix} \right]$$

Where  $r_{t,n,b}$  means the  $b$ -day Excess Return of Index Component,  $n$ , at  $t$ .

And *average*  $\begin{pmatrix} x \\ y \\ z \end{pmatrix}^{EWM(half\ life=c)}$  means the average value of  $x,y,z$  exponentially weighted with half-life of  $c$  Index Business Days.

Where:  $VAF_t$  is set to 1.0 for all  $t$  up to and including  $t = 126$ ,

And thereafter,

$$VAF_t = \max \left( VAF^{min}, \min \left( VAF^{max}, \left( \frac{\max \left( 0, VAR^{target} - \sum_{x=0}^{125} \left( \frac{t-x}{t-1-x} - 1 \right)^2 \right) \times VAF^{window}}{VAF^{window} - VAF^{lookback}} \right)^{0.5} / vol\_target \right) \right)$$

## 4 Publication and Adjustments

### 4.1 Calculation Frequency and Dissemination

A value for the Index is calculated and published by the Calculation Agent on every Business Day which is not a Disrupted Day.

Closing levels for the Index are disseminated on Bloomberg Page SAVESHA1.

On any day when the Index is not calculated, such as a Disrupted Day or otherwise, it is anticipated that no value for the Index will be disseminated in respect of such day, subject to the provisions set out below.

If a Disrupted Day occurs or is persisting, the Calculation Agent will publish a value for the Index which reflects the Index Level from the last business Day which was not affected by a Disrupted Day.

In calculating and determining the Index Level the Calculation Agent will refer to the methodology described herein. Unless otherwise stated, all calculations shall be made by the Calculation Agent and all such calculations, in the absence of manifest error, shall be final and binding.

### 4.2 Corrections

In the event that the Calculation Agent or the Sponsor determines that a material error has occurred in the calculation of the Index, the Calculation Agent, having consulted, or having been consulted by, the Sponsor, will endeavor to correct such error on a date agreed by the Sponsor. If a material error is corrected, the Sponsor shall apply the correction from the relevant date forward.

### 4.3 Disrupted Days

If, in the opinion of the Sponsor, a Disrupted Day has occurred on any Business Day, the Calculation Agent will publish the value for the Index which reflects the Index Level from the last Business Day which was not a Disrupted Day. As a consequence of a Disrupted Day(s), the exposure period to Components could be shorter or longer than if a Disrupted Day did not occur.

For the purpose of this Description, a Disrupted Day means any Business Day on which: (a) a relevant Exchange fails to open for trading during its regular trading session; or (b) a disruption event (see Section 4.4) or adjustment event (see Section 4.5) occurs.

### 4.4 Disruption Events

The occurrence of any of the following events shall constitute a disruption event if, as determined by the Sponsor, they have a material impact on the Index.

These events may impact any component of the Index (for example, but not limited to, ETFs, Indices and their sub-components, stocks) or the Index calculation itself.

**Price Source Disruption:** It becomes impossible, on any Business Day, to obtain a closing price or any other price level for any component or instrument that is referenced by the Index (this includes, where applicable, sub-components of Index components); or

**Component Market Disruption Event:** The occurrence or existence of (a) a trading disruption; (b) an exchange disruption at any time during the one hour period that ends at the regularly scheduled close of trading for any component of or

instrument that is referenced by the Index on the Exchange; (c) an early closure (each as further described below); or (d) an announced disruption.

**Macro Data Disruption:** it becomes impossible, on any Business Day, to obtain values for Macro Data used for the determination of the Signals Table when such data would have been expected to be published and made available.

For the purpose of this Description:

**trading disruption** means any suspension of, or limitation imposed on, trading by the Exchange or otherwise and whether by reason of price-movements exceeding limits permitted by the Exchange or otherwise;

**exchange disruption** means any event (other than an early closure) that disrupts or impairs (as determined by the Calculation Agent and/or Sponsor) the ability of market participants to effect transactions in, or obtain market values for, any component of or instrument that is referenced by the Index;

**early closure** means, on any Business Day and in respect of any instrument or component referenced by the Index, the closure of the Exchange prior to its scheduled closing time, unless such earlier closing is announced by the Exchange at least one hour prior to the earlier of: (a) the actual closing time for the regular trading session on the Exchange on such Business Day; and (b) the submission deadline for orders to be entered into the Exchange's dealing system for execution on such Business Day; and

**announced disruption** means an announcement by the sponsor of any Component in any Business Day, or the Exchange that a disruption event has occurred and is continuing with respect to such Component(s) or the Exchange, as applicable, which disruption may include (but is not limited to) events which impair the accuracy of published Closing Price or any other price level for any component of or instrument that is referenced by the Index.

#### 4.5 Adjustment Events

This Description, and each of the clauses herein, may be adjusted, amended, deleted or otherwise altered by the Sponsor at any time, acting in good faith and with the consent of the Calculation Agent, if the Index is no longer calculable pursuant to this Description. These adjustments may include, but are not limited to, adjustments required for clarification or for minor or technical reasons including (without limitation) to correct any manifest or proven error, to cure, correct or supplement any ambiguity or defective provision contained in this Description or any adjustment necessary to abide by a change in law with respect to the sale or purchase of any Component of an Component.

#### 4.6 Index Disruption Fallbacks

If (i) a Disrupted Day occurs for 5 consecutive Business Days, or (ii) the Sponsor determines that (a) there is a discontinuation in the publication of prices for any component of or instrument referenced by the Index, (b) the use of any component of or instrument referenced by the Index has become prohibited, (c) the sponsor of any component of or instrument referenced by the Index has changed the specifications of such instrument or component, or (d) any component of or instrument referenced by the Index is modified or changed in any other way (except for a previously announced modification), or (e) any component of or instrument referenced by the Index has been or is likely to become terminated, then the Sponsor shall, in consultation with the Calculation Agent, have the right to:

- accept the closing level of any component of or instrument referenced by the Index published on any alternative price source;
- if no alternative price source is available, calculate a substitute Index Level based on the last published level of the component of or instrument referenced by the Index, and such level may be zero;
- select a substantially similar component for the Index or instrument to which the Index can be linked; and
- adjust, amend, or otherwise alter the Description in accordance with Section 4.5.

## 5 Changes in Methodology; Termination of Calculation of Index

### 5.1 Changes in Methodology

Market, regulatory, economic and/or other events or developments, including without limitation changes to, or the suspension or termination of any components for which values must be determined in relation to the Index, may occur which make a modification to the Index and/or this Index Description necessary or advisable. Such a determination shall be made by the Sponsor in its sole discretion, from time to time, based on such factors as it deems reasonable and appropriate at the relevant time.

The Index Sponsor, in its sole discretion, may add or remove Index components (and/or their underlying sub-components if applicable) due to reasons such as, but not limited to, liquidity, changes in behavior of components or ETFs in a way that make them unsuitable for their originally intended purpose, the determination that a different ETF (or other instrument) now exists that more appropriately fulfills the intended purpose for that component. In such cases, the transition will be carried out in a manner agreed with the Calculation Agent.

The Index Sponsor, in its sole discretion, may add, remove, edit or adjust the use of, the Macro Data used to produce the Signals Table due to reasons such as, but not limited to, termination of publication of data, delays in receiving data, the introduction of a higher frequency version of the same or highly similar data, adjustments made to the data itself by the provider for whatever reason which materially affects its behavior, the newfound availability of data that better serves the originally intended purpose of a given data item, the finding that a given data item no longer serves the originally intended purpose. In such cases, the transition will be carried out in a manner agreed with the Calculation Agent.

Notwithstanding any of the foregoing rights, the Index Sponsor shall not have the right to either change or alter the Index methodology or to deviate (i.e., change, add or subtract) from the components of the Index (and/or their underlying ETFs or other financial instruments) if such change, alteration or deviation is primarily designed to improve the financial performance of the Index.

In the event the Sponsor determines that any modifications to the Index and/or this Index Description are necessary, which modifications cause the Calculation Agent to be unable to calculate the Index, the Sponsor may, in its sole and absolute discretion, appoint a successor Calculation Agent.

### 5.2 Termination

The Sponsor may, at any time and without notice, terminate its arrangements with the Calculation Agent and direct the Calculation Agent to cease the calculation and dissemination of the Index.