

**save<sup>®</sup>**

SAVE<sup>®</sup> ESG INDEX

# Save® ESG Index

## 1 Overview

The Save® ESG Index is a rules-based investment strategy that captures returns across various markets by allocating across multiple asset classes and regions in a diversified manner, seeking to maximize expected returns while controlling for risk.

In addition, the ESG Index is designed to favor companies leading in sustainability, diversity, equity, and more; the index applies the following business involvement screens: civilian firearms, controversial weapons, tobacco, thermal coal, and oil sands; this is achieved by utilizing a selection of well-diversified ESG-focused ETFs.

There are two risk control principles applied - one at the individual asset level and one at the overall index level. To apply these principles effectively, the index is rebalanced daily.

At the individual asset class level, a filter is used to limit exposures to assets that are negatively trending, reducing potential losses from those assets. At the overall index level, a volatility control mechanism is employed that keeps the index volatility relatively constant over time, thereby limiting exposure in times of market stress.

The methodology can be summarized in 3 steps:

1. **Trend Assessment:** measure the trend of each of the components by comparing the current level of the component with the previous 126 levels available for a given component and calculating what percentage of the previous levels are below the current level. This number is then adjusted for the component volatility, so we have a trend that is adjusted for the component risk. Higher numbers for the trend indicate better trends for the component and we use this in the next step to give higher trending components larger risk allocations.
2. **Adjusted Risk Contribution:** The second step is to size the intended allocation for each component; we start from “Equal Risk Contribution”, where the contribution from each component to the overall portfolio risk (or volatility) is the same. We then adjust so that positively trending components are designated a higher (risk) allocation, and vice versa. In that process, we consider the components in 3 groups as defined in Section 3; positions are first allocated, based on risk, to components within each group; each group is then allocated a weight within the final portfolio.
3. **Volatility Control:** The last step in the portfolio construction is the volatility control; the index uses intended asset weights from the previous step to assess the expected volatility of the overall portfolio, by looking at the recent realized volatility of each underlying and their respective correlations. Finally, the index sizes the portfolio exposure to target a realized volatility for the index of 2.5%.

The Save<sup>®</sup> ESG Index is the intellectual property of Save Advisers LCC, sponsor of the Index (“Index Sponsor”). The Sponsor owns all intellectual property rights in the Index and in this Description, which has been supplied by the Sponsor. Any use of any such intellectual property rights may only be made with the express written consent of the Sponsor.

The next sections of this document expand on this summary and detail the methodology involved in calculating the Save<sup>®</sup> Index, its risk factors, and its components.

## 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 its 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 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 of July 12, 2022 and therefore lacks actual historical performance. The Calculation Agent and the Sponsor have retrospectively calculated the closing levels of the Index from the Base 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. Although these assumptions are considered reasonable or necessary, the variations used in producing simulated historical data from those used to calculate the Index going forward could produce variations in returns of indeterminate direction and amount.

In particular, in these simulations, a Component was only considered as part of the index, after at least 252 prices were available for any given Component. Because of the limited history of some component ETFs, proxies were used to backfill historical data particularly for ESGU and EAGG, their respective benchmarks were used as proxied.

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 Risk**

For the purposes of the Index, volatility is a measure of how much an asset has deviated from its average over a defined time. The Index has an automatic feature that aims to protect against some of the inherent volatility exhibited by the Components and, by consequence, the levels of the Index by reducing exposure to the Index in times of high volatility.

The Index will be exposed to up to 150% of the Daily Reference Weight during periods of low expected volatility but will proportionally reduce exposure to less than 100% as the Daily Target Weight expected volatility increases to 2.5% or above. In periods of high market volatility this feature may cushion the effect of market falls but constrain the benefit of market rises. This feature may not be successful, and this may have an impact on the performance of the Index.

**Target Volatility Exposure and Leverage**

The Index is calculated using the Target Volatility Exposure mechanism which means that the exposure to the Daily Reference Weight may be greater than 100% (up to a maximum of 150% and a minimum of 0%), and the use of the Target Volatility Exposure may therefore leverage returns of the Index. Leverage (where exposure is greater than 100%) has the potential to magnify the gains or losses of the Index.

**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.

**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.

**Equities Risk**

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.

**Bonds Risk (Corporate Bonds and Government Bonds)**

The value of a bond is volatile and subject to market conditions. The value of a bond is subject to the supply of, and/or demand and whether or not any alternatives to that bond exist. When interest rates rise, bond prices fall; conversely, when rates decline, bond prices rise. The longer the time to a bond's maturity, the greater its sensitivity to changes in interest rates is. Bonds relating to debt capital markets may be negatively affected by global economic, financial, and political developments. Further, investments in bonds are subject to the credit risk of the issuer of such securities, whether a corporate or a sovereign issuer. Should the issuer of bonds default, an investor in such bonds debt securities may lose some or all of their investment. The credit risk of an issuer and global developments, among other things, may have a material effect on the value of the bonds and consequently the performance of the Index.

**Commodities Risk**

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.

**ESG Risk**

Several Index Components have been included in part due to their use of “ESG” (Environmental, Social and Governance) elements in their construction.

There is a risk that these Index Components (specifically, ETFs) could underperform their respective broad market benchmarks if the underlying components selected by these ETFs, due to certain ESG criteria, underperform their peer group. As a result, this Index could underperform its peer-group, including indices which do not consider ESG criteria, as well as indices that do consider ESG criteria.

Underlying components of these ETFs may not be considered to have favorable ESG characteristics by some parties, based on quantitative or qualitative metrics.

The approach to ESG taken by this index – specifically, utilizing ETFs that select and/or assign higher weights to companies deemed to have certain favorable ESG characteristics – may be an approach to ESG investing that not all market participants deem to be optimal.

It is possible that Index Components are discontinued and, in line with the section of this document titled “Publication and Adjustments”, replacement components are selected. In this case, there is a risk that the new components will utilize different ESG criteria or that there are no appropriate replacements that take ESG into consideration.

Regulation, and wider public opinion, relating to investments which purport to take ESG into consideration are continuously changing; if regulation or recommended best practices suggest that some Index components are no longer appropriate from an ESG perspective, there is a risk that, in line with the section of this document titled “Publication and Adjustments”, replacement components need to be sought; in these cases, there is a risk that no appropriate ESG components can be found.

There is a risk that the index as a whole, due to any of the factors mentioned in this section, is deemed to no longer fulfill the requirements needed to be considered appropriate from an ESG perspective. In this situation, the continued operation of the index will be considered in line with the sections of this document titled “Publication and Adjustments” and “Changes in Methodology; Termination of Calculation of Index”.

### **Allocation Risk**

The Save® Index uses a Trend Score mechanism by which it compares a component current level to its past levels as an indication of past performance, and adjust that score based on the component volatility. The Trend Score therefore takes the riskiness of a component into account when assessing its past performance.

The Save® Index combines that with an Adjusted Risk Contribution mechanism to determine a target allocation, taking into consideration the Trend Score and the contribution of a component to the overall riskiness of the Index. This leads to an allocation that attempts to balance the riskiness of a Component and its probability of a positive future performance.

At any given period, every Component of the Index has a positive weight allocation, therefore investors will be exposed to any downside movements of that Component.

The Save® Index is based on the assumption that the past Trend Score of the Components is a good measure of the risk-adjusted return and therefore a good indicator of the future performance of the

Components. There is no assurance that this assumption is correct, nor any assurance that the strategy taken by the Index will generate positive returns.

The Save® Index is also based on the assumption that the past Volatility of the Components is a good measure of their risk and therefore a good indicator of the future risk of the Components. There is no assurance that this assumption is correct, nor any assurance that the risk profile of the Components will change due to future events.

### 3 Index Components

The Save® Index is composed of 9 ETFs, covering a broad range of asset classes, industry sectors and geographies in order to achieve a wide diversification with the goal of making the index resilient to different market conditions. The following table lists the Save® Index Components.

	Save® Index Component	Save® Index Component Pricing Page	Save® Index Component Group (g)	Maximum Component Weighting	Maximum Component Daily Move	Exchange
1	iShares 7-10 Year Treasury Bond ETF	IEF UQ Equity	Group 1	25%	2.50%	Nasdaq Global Market
2	iShares 20+ Year Treasury Bond ETF	TLT UQ Equity	Group 1	25%	2.50%	Nasdaq Global Market
3	iShares ESG Aware US Aggregate Bond ETF	EAGG UP Equity	Group 1	10%	0.50%	NYSE Arca, Inc.
4	iShares TIPS Bond ETF	TIP UP Equity	Group 1	25%	2.50%	NYSE Arca, Inc.
5	iShares ESG Aware MSCI USA ETF	ESGU UQ Equity	Group 2	25%	2.50%	Nasdaq Global Market
6	iShares Trust iShares ESG Aware MSCI EAFE ETF	ESGD UQ Equity	Group 2	10%	1.00%	Nasdaq Global Market
7	iShares Inc iShares ESG Aware MSCI EM ETF	ESGE UQ Equity	Group 2	10%	1.00%	Nasdaq Global Market
8	Invesco Solar ETF	TAN UP Equity	Group 2	10%	1.00%	NYSE Arca, Inc.
9	SPDR Gold Shares	GLD UP Equity	Group 3	10%	1.00%	NYSE Arca, Inc.



### 3.1 Save® Index Reference Rate

Save® Index Reference Rate	Save® Index Reference Rate Pricing Page	Currency	Reference Source	Price
Effective Federal Funds Rate	As published on Bloomberg page FEDL01 Index.	USD	Bloomberg	

## 4 Calculation

This is the methodology to be followed by the Calculating Agent in order to determine the index level on every Business Day which is not a Disrupted Day. Business Day for the purposes of this calculation is every trading day in the New York Stock Exchange.

### 4.1 Relevant Dates and Base Value

Event	Date
First Daily Excess Return Level (t = 0)	13 December 2016
Variance and Trend Start Date (t = 1)	14 December 2016
Component Weights Start Date (t = 252)	13 December 2017
Group Weights Start Date (t = 503)	13 December 2018
Save® Index Start Date (Base Date)	17 December 2018
First Live Dissemination Date	12 July 2022

The index will have USD as its base currency and a base value of 100.0 at the base date.

Some of the components didn't have enough data before Index Start Date, those components were proxied to their respective benchmarks or equivalent non-ESG ETF. In particular, EAGG was proxied to AGG and ESGU was proxied to GU719471 Index (adjusted for fees) prior to the Index Start Date to get initial weights on Index Start Date.

### 4.2 Save® Index Level Calculation

On the Save® Index Start Date,

$$\text{Index}_t = 100$$

On each following Save® Index Calculation Date, the Save® Index Level is determined in accordance with the following formula:

$$\text{Index}_t = \text{Index}_{t-1} \times \frac{\text{DNPV}_t}{\text{DNPV}_{t-1}}$$

Where:

- $\text{Index}_t$  means the Save® Index Level on Save® Index Calculation Date t;
- $\text{Index}_{t-1}$  means the Save® Index Level on Save® Index Calculation Date t – 1;
- $\text{DNPV}_t$  means the Daily Net Portfolio Value on Save® Index Calculation Date t; and

- $DNPV_{t-1}$  means the Daily Net Portfolio Value on Save® Index Calculation Date  $t - 1$ .

### 4.3 Daily Net Portfolio Value Calculation

On the Save® Index Start Date,

$$DNPV_t = 100$$

On each following Save® Index Calculation Date, the Daily Net Portfolio Value ( $DNPV_t$ ) is calculated in accordance with the following formula:

$$DNPV_t = DNPV_{t-1} + \sum_i \left( n_{i,t-1}^{used} \times (Asset_{i,t}^{ER} - Asset_{i,t-1}^{ER}) \right)$$

Where:

- $DNPV_t$  means the Daily Portfolio Value on Save® Index Calculation Date  $t$ ;
- $DNPV_{t-1}$  means the Daily Net Portfolio Value on Save® Index Calculation Date  $t - 1$ ;
- $n_{i,t-1}^{used}$  means the Daily Used Quantity of Save® Index Component  $i$  on Save® Index Calculation Date  $t - 1$ ;
- $Asset_{i,t}^{ER}$  means the Daily Excess Return Level of Save® Index Component  $i$  on Save® Index Calculation Date  $t$ ; and
- $Asset_{i,t-1}^{ER}$  means the Daily Excess Return Level of Save® Index Component  $i$  on Save® Index Calculation Date  $t - 1$ .

### 4.4 Average Trend of the Save® Index Components

The Average Trend ( $\delta_{i,t}$ ) for each Save® Index Component is determined in accordance with the following:

On the First Daily Excess Return Level ( $t = 0$ ),

$$\delta_{i,0} = 0.2$$

On each following Save® Index Calculation Date, the Average Trend for each Save® Index Component is determined in accordance with the following formula:

$$\delta_{i,t} = 80\% \times \delta_{i,t-1} + 20\% \times Trend_i(t)$$

Where:

- $\delta_{i,t}$  means the Average Trend of Save® Index Component  $i$  on Save® Index Calculation Date  $t$ ;
- $\delta_{i,t-1}$  means the Average Trend of Save® Index Component  $i$  on Save® Index Calculation Date  $t - 1$ ; and
- $Trend_i(t)$  means the Trend of Save® Index Component  $i$  on Save® Index Calculation Date  $t$ .

#### 4.4.1 Trend of the Save® Index Components

For the first 126 Save® Index Calculation Dates (starting from  $t = 0$ ) that a component has Settlement Price information, the Trend ( $Trend_i(t)$ ) for each Save® Index Component is determined in accordance with the following formula:

$$Trend_i(t) = \left[ (1 + 33.33\%) \times \left( \frac{1}{Act(t, t_0) + 1} \times \sum_{k=0}^{Act(t, t_0)} 1_{Asset_{i,t}^{ER} \geq Asset_{i,t-k}^{ER}} \right) - 33.33\% \right] \times \min \left( 1, \sqrt{\frac{Var_i(t)}{SVar_i(t)}} \right)$$

On each following Save® Index Calculation Dates, the Trend for each Save® Index Component is determined in accordance with the following formula:

$$Trend_i(t) = \left[ (1 + 33.33\%) \times \left( \frac{1}{W} \times \sum_{k=0}^{W-1} 1_{Asset_{i,t}^{ER} \geq Asset_{i,t-k}^{ER}} \right) - 33.33\% \right] \times \min \left( 1, \sqrt{\frac{Var_i(t)}{SVar_i(t)}} \right)$$

Where:

- $Trend_i(t)$  means the Trend of Save® Index Component  $i$  on Save® Index Calculation Date  $t$ ;
- $Act(t, t_0)$  means the number of Save® Index Calculation Dates between  $t_0$  (including) and Save® Index Calculation Date  $t$  (excluding);
- $1$  means the indicator function, where  $1_{Asset_{i,t}^{ER} \geq Asset_{i,t-k}^{ER}}$  is equal to 1 if  $Asset_{i,t}^{ER}$  is greater than or equal to  $Asset_{i,t-k}^{ER}$ ; otherwise, 0;
- $Asset_{i,t}^{ER}$  means the Daily Excess Return Level of Save® Index Component  $i$  on Save® Index Calculation Date  $t$ ;
- $Asset_{i,t-k}^{ER}$  means the Daily Excess Return Level of Save® Index Component  $i$  on Save® Index Calculation Date  $t - k$ ;
- $Var_i(t)$  means the Long-Term Realized Variance of Save® Index Component  $i$  on Save® Index Calculation Date  $t$ ;
- $SVar_i(t)$  means the Short-Term Realized Variance of Save® Index Component  $i$  on Save® Index Calculation Date  $t$ ; and
- $W$  means the number of Save® Index Calculation Dates in the observation window, or 126.

#### 4.4.2 Long-Term Realized Variance of the Save® Index Components

The Long-Term Realized Variance ( $Var_i(t)$ ) for each Save® Index Component is determined in accordance with the following:

On the Variance Start Date ( $t = 1$ ),

$$Var_i(t) = 252 \times \left( \frac{Asset_{i,t}^{ER}}{Asset_{i,t-1}^{ER}} - 1 \right)^2$$

On each following Save® Index Calculation Date, the Long-Term Realized Variance of each Save® Index Component is determined in accordance with the following formula:

$$\text{Var}_i(t) = \lambda_{n_{var}} \times \text{Var}_i(t - 1) + (1 - \lambda_{n_{var}}) \times 252 \times \left( \frac{\text{Asset}_{i,t}^{ER}}{\text{Asset}_{i,t-1}^{ER}} - 1 \right)^2$$

Where:

- $\text{Var}_i(t)$  means the Long-Term Realized Variance of Save® Index Component i on Save® Index Calculation Date t;
- $\text{Var}_i(t - 1)$  means the Long-Term Realized Variance of Save® Index Component i on Save® Index Calculation Date t - 1;
- $\text{Asset}_{i,t}^{ER}$  means the Daily Excess Return Level of Save® Index Component i on Save® Index Calculation Date t;
- $\text{Asset}_{i,t-1}^{ER}$  means the Daily Excess Return Level of Save® Index Component i on Save® Index Calculation Date t - 1; and
- $\lambda_{n_{var}}$  means the Long-Term Variance Decay Factor, determined in accordance with the following formula:

$$\lambda_{n_{var}} = \left( \frac{1}{2} \right)^{\frac{1}{n_{var}}}$$

Where:

$$n_{var} = 252$$

The Long-Term Variance Decay Factor is a number greater than zero and less than one that determines the weight of the returns of each Daily Excess Return Level of each Save® Index Component i.

#### 4.4.3 Short-Term Realized Variance of the Save® Index Components

The Short-Term Realized Variance ( $\text{SVar}_i(t)$ ) for each Save® Index Component is determined in accordance with the following:

On the Variance Start Date ( $t = 1$ ),

$$\text{SVar}_i(t) = 252 \times \left( \frac{\text{Asset}_{i,t}^{ER}}{\text{Asset}_{i,t-1}^{ER}} - 1 \right)^2$$

On each following Save® Index Calculation Date, the Short-Term Realized Variance of each Save® Index Component is determined in accordance with the following formula:

$$\text{SVar}_i(t) = \lambda_{n_{svar}} \times \text{SVar}_i(t - 1) + (1 - \lambda_{n_{svar}}) \times 252 \times \left( \frac{\text{Asset}_{i,t}^{ER}}{\text{Asset}_{i,t-1}^{ER}} - 1 \right)^2$$

Where:

- $\text{SVar}_i(t)$  means the Short-Term Realized Variance of Save® Index Component i on Save® Index Calculation Date t;
- $\text{SVar}_i(t - 1)$  means the Short-Term Realized Variance of Save® Index Component i on Save® Index Calculation Date t - 1;

- $Asset_{i,t}^{ER}$  means the Daily Excess Return Level of Save® Index Component i on Save® Index Calculation Date t;
- $Asset_{i,t-1}^{ER}$  means the Daily Excess Return Level of Save® Index Component i on Save® Index Calculation Date t – 1; and
- $\lambda_{n_svar}$  means the Short-Term Variance Decay Factor, determined in accordance with the following formula:

$$\lambda_{n_svar} = \left(\frac{1}{2}\right)^{\frac{1}{n_svar}}$$

Where:

$$n_{svar} = 20$$

The Short-Term Variance Decay Factor is a number greater than zero and less than one that determines the weight of the returns of each Daily Excess Return Level of each Save® Index Component i.

#### 4.5 Determination of the Daily Risk Parity Portfolio

On each Save® Index Calculation Date, the Daily Risk Parity Portfolio will be comprised of each Save® Index Component weighted as the Daily Reference Weight ( $W_{i,t}^{Ref}$ ) for such Save® Index Component determined in accordance with the following:

##### 4.5.1 Daily Reference Weight

Prior to the Group Weights Start Date ( $t < 503$ ),

$$W_{i,t}^{Ref} = 0$$

On the Group Weights Start Date ( $t = 503$ ) and each following Save® Index Calculation Date, the Daily Reference Weight of each Save® Index Component will be equal to the Daily Gross Weight of such Save® Index Component on such Save® Index Calculation Date, provided that:

$$W_{i,t}^{Ref} = W_{i,t}^{Gross}$$

If the Daily Gross Weight is greater than the Daily Gross Weight Cap ( $DGWC_t$ ), determined as follows:

$DGWC_t = \min(MaxComponentWeighting_i, W_{i,t-1}^{Ref} + MaxComponentDailyMove_i)$ , then

$$W_{i,t}^{Ref} = DGWC_t$$

If the Daily Gross Weight is less than the Daily Gross Weight Floor ( $DGWF_t$ ), determined as follows:

$DGWF_t = \max(MinComponentWeighting_i, W_{i,t-1}^{Ref} - MaxComponentDailyMove_i)$ , then

$$W_{i,t}^{Ref} = DGWF_t$$

Where:

- $W_{i,t}^{Ref}$  means the Daily Reference Weight of Save® Index Component i on Save® Index Calculation Date t;
- $W_{i,t-1}^{Gross}$  means the Daily Gross Weight of Save® Index Component i on Save® Index Calculation Date t – 1;
- $MinComponentWeighting_i$  means the Minimum Component Weighting of Save® Index Component i, equals to 0% for every component;
- $MaxComponentWeighting_i$  means the Maximum Component Weighting of Save® Index Component i; and
- $MaxComponentDailyMove_i$  means the Maximum Component Daily Move of Save® Index Component i.

#### 4.5.2 Daily Gross Weight

The Daily Gross Weight ( $W_{i,t}^{Gross}$ ) of each Index Component is determined in accordance with the following:

On the Group Weights Start Date (t = 503) and each following Index Calculation Date, the Daily Gross Weight is given by

$$W_{i,t}^{Gross} = W_{g,t}^{Group} * W_{i,t}^{Component}, \forall i \in g, \forall g$$

Where:

- $W_{i,t}^{Gross}$  means the Daily Gross Weight of Index Component i on Save® Index Calculation Date t;
- $W_{g,t}^{Group}$  means the Daily Relative Group Weight of the Group g on Save® Index Calculation Date t;
- $W_{i,t}^{Component}$  means the vector of Daily Relative Component Weight of Index Component i on Save® Index Calculation Date t;

#### 4.5.3 Daily Relative Component Weight

The Daily Relative Component Weight ( $W_{i,t}^{Component}$ ) of each Index Component is determined in accordance with the following:

On the Component Weights Start Date (t = 252) and each following Index Calculation Date, the Daily Relative Component Weight is given by the following optimization:

$$W_{g,t}^{Component} = \underset{w}{\operatorname{argmin}} \sum_{i \in g} \left( \sigma_i^{budget} * \sqrt{w \Sigma_{g,t} w} - \frac{w_i (\Sigma_{g,t} w)_i}{\sqrt{w \Sigma_{g,t} w}} \right)^2$$

$$\text{s. t. } \sum_{i \in g} w_i = 1$$

$$w_i \geq 0, \forall i \in g$$

Where:

- $W_{g,t}^{Component}$  means the vector of Daily Relative Component Weight of Index Components in group g on Save® Index Calculation Date t, rounded to 6 digits precision;
- $\Sigma_{g,t}$  means the group covariance matrix of the Index Components in group g in Save® Index Calculation Date t;
- $\sigma_i^{budget}$  means the Daily Risk Budget for Index Component i on Save® Index Calculation Date t; and
- g means each of the groups in Table 1.A

#### 4.5.4 Determination of the daily risk budget

The Daily Risk Budget ( $\sigma_i^{budget}$ ) of each Save® Index Component is determined in accordance with the following:

$$\sigma_{i,t}^{budget} = \frac{1}{N_{g,t}} * BudgetMul_{i,t}$$

Where:

- $\sigma_i^{budget}$  means the Daily Risk Budget for Index Component i on Save® Index Calculation Date t;
- $Trend_i(t)$  means the Trend of Save® Index Component i on Save® Index Calculation Date t; and
- $BudgetMul_{i,t}$  is the Budget Multiplier for Save® Index Component i on Save® Index Calculation Date t, defined for each index in Section 4.9.
- $N_{g,t}$  means the number of Save® Index Components in Group g such that t >= Component Weight Start Date.

#### 4.5.5 Determination of the covariance matrix

The covariance matrix of the Index Components in group g in Save® Index Calculation Date t is determined in accordance with the following:

$$\Sigma_{g,t} = \sqrt{DiagVar_g(t)} * Corr_g(t) * \sqrt{DiagVar_g(t)}$$

Where:

- $\Sigma_{g,t}$  means the group covariance matrix of the Index Components in group g in Save® Index Calculation Date t;
- $\sqrt{DiagVar_g(t)}$  means the diagonal matrix of the square root of Short-Term Realized Variance ( $SVar_i(t)$ ) of Save® Index Components in group g on Save® Index Calculation Date t;
- $Corr_g(t)$  means the Component's Correlation Matrix of Save® Index Components in group g on Save® Index Calculation Date t.

#### 4.5.6 Determination of the component's correlation matrix

The correlation matrix ( $Corr_g(t)$ ) is the pairwise correlation of the weekly returns of the components in group g, computed Tuesday to Tuesday, calculated over the biggest overlapping window for the

components. If a given Tuesday is a Disrupted Day, the previous available day is used instead. The weekly return is obtained compounding group's returns between two consecutive Tuesdays as such:

$$R_{i,week} = \left( \frac{Asset_{i,Tuesday}^{ER}}{Asset_{i,Previous\_Tuesday}^{ER}} \right) - 1$$

Where:

- $R_{i,week}$  means the weekly return of for Index Component  $i$  on Save® Index Calculation Date  $t \geq$  Tuesday; For each Save® Index Calculation Date  $t$  in the period between a *Tuesday* and a *Previous\_Tuesday*, a single observation is used for assessing the correlation;
- $Asset_{i,Tuesday}^{ER}$  means the Daily Excess Return Level of Save® Index Component  $i$  on the Tuesday of the week of Save® Index Calculation Date  $t$ , if Save® Index Calculation Date  $t \geq$  Tuesday; if Save® Index Calculation Date  $t \geq$  Tuesday and  $Asset_{i,Tuesday}^{ER}$  is not available, the previous available  $Asset_{i,t}^{ER}$  is used instead; and
- $Asset_{i,Previous\_Tuesday}^{ER}$  means the Daily Excess Return Level of Save® Index Component  $i$  on the Tuesday preceding the week of Save® Index Calculation Date  $t$ , i.e.  $Asset_{i,Tuesday}^{ER}$  of the previous week; if  $Asset_{i,Previous\_Tuesday}^{ER}$  is prior to the first observation in the data,  $Asset_{i,0}^{ER}$  is used instead;

#### 4.5.7 Daily Relative Group Weight

The Daily Relative Group Weight ( $W_{g,t}^{Group}$ ) of each Group is determined in accordance with the following:

On the Group Weights Start Date ( $t = 503$ ) and each following Index Calculation Date, the Daily Relative Group Weight is given by the following optimization:

$$W_{g,t}^{Group} = \underset{w}{\operatorname{argmin}} \sum_g \left( \sigma_g^{budget} * \sqrt{w \Sigma_t w} - \frac{w_g (\Sigma_t w)_g}{\sqrt{w \Sigma_t w}} \right)^2$$

$$\text{s. t. } \sum_g w_g = 1$$

$$w_g \geq 0, \forall g$$

Where:

- $W_{g,t}^{Group}$  means the vector of Daily Relative Group Weight of Group  $g$  on Save® Index Calculation Date  $t$ , rounded to 6 digits precision;
- $\Sigma_t$  means the covariance matrix of the Groups in Save® Index Calculation Date  $t$ ;
- $\sigma_g^{budget}$  means the Daily Risk Budget for Group  $g$  on Save® Index Calculation Date  $t$ ;

#### 4.5.8 Determination of the daily risk budget for groups

The Daily Risk Budget ( $\sigma_{g,t}^{budget}$ ) Component Group is determined in accordance with the following:



$$\sigma_{g,t}^{budget} = \frac{1}{N_{G,t}}$$

Where:

- $N_{G,t}$  means the total number of Save® Index Groups on Save® Index Calculation Date t

#### 4.5.9 Determination of the covariance matrix of the groups

The covariance matrix of the groups in Save® Index Calculation Date t is determined in accordance with the following:

$$\Sigma_t = \sqrt{\text{DiagVar}_G(t)} * \text{Corr}_G(t) * \sqrt{\text{DiagVar}_G(t)}$$

Where:

- $\sqrt{\text{DiagVar}_G(t)}$  means the diagonal matrix of the square root of the Short-Term Realized Variances of Save® Index Groups on Save® Index Calculation Date t;
- $\text{Corr}_G(t)$  means the Group's Correlation Matrix of Save® Groups on Save® Index Calculation Date t.

#### 4.5.10 Short-Term Realized Variance of the Save® Index Group

The Short-Term Realized Variance ( $SVar_i(t)$ ) for each Save® Index Group is determined in accordance with the following:

On the Component Weights Start Date ( $t = 252$ ),

$$SVar_g(t) = 252 \times R_{g,t}^2$$

On each following Save® Index Calculation Date, the Short-Term Realized Variance of each Save® Index Groups is determined in accordance with the following formula:

$$SVar_g(t) = \lambda_{n_svar} \times SVar_i(t - 1) + (1 - \lambda_{n_svar}) \times 252 \times R_{g,t}^2$$

Where:

- $SVar_g(t)$  means the Short-Term Realized Variance of Save® Index Group g on Save® Index Calculation Date t;
- $SVar_g(t - 1)$  means the Short-Term Realized Variance of Save® Index Group g on Save® Index Calculation Date t - 1;
- $R_{g,t}$  means the Daily Return of Save® Index Group g on Save® Index Calculation Date t;
- $\lambda_{n_svar}$  means the Short-Term Variance Decay Factor, determined in accordance with the following formula:

$$\lambda_{n_svar} = \left(\frac{1}{2}\right)^{n_{svar}}$$

Where:

$$n_{svar} = 20$$

The Short-Term Variance Decay Factor is a number greater than zero and less than one that determines the weight of the returns of each Daily Calculation Date of each Save® Index Group  $g$ .

#### 4.5.11 Determination of the group's correlation matrix

The correlation matrix  $\text{Corr}_G(t)$  is the pairwise correlation of the weekly returns of each group, computed Tuesday to Tuesday, calculated over the biggest overlapping window. The weekly return is obtained compounding group's returns between two consecutive Tuesdays as such:

$$R_{g,week} = \left( \prod_{t \in week} (1 + R_{g,t}) \right) - 1$$

Where *week* means the period between a Tuesday and the previous Wednesday, for each Save® Index Calculation Date  $t$  after said Tuesday. For the first Tuesday of the sample, the available observations are used, regardless of when they start.

#### 4.5.12 Determination of the group's returns

The group returns are given by:

$$R_{g,t} = \sum_{i \in g} W_{i,t}^{Component} \times \left( \frac{Asset_{i,t}^{ER}}{Asset_{i,t-1}^{ER}} - 1 \right), \forall g$$

Where:

- $R_{g,t}$  means the Daily Return of Group  $g$  on Save® Index Calculation Date  $t$ ;
- $W_{i,t}^{Component}$  means the Daily Relative Weight of Index Component  $i$  on Save® Index Calculation Date  $t$ ;
- $Asset_{i,t}^{ER}$  means the Daily Excess Return Level of Save® Index Component  $i$  on Save® Index Calculation Date  $t$ ; and
- $Asset_{i,t-1}^{ER}$  means the Daily Excess Return Level of Save® Index Component  $i$  on Save® Index Calculation Date  $t - 1$ .

### 4.6 Determination of the Daily Target Weight

The Daily Target Weight ( $W_{i,t}^{target}$ ) of each Save® Index Component is determined in accordance with the following:

Prior to the Group Weights Start Date ( $t < 503$ ),

$$W_{i,t}^{target} = 0$$

On the Group Weights Start Date ( $t = 503$ ) and each following Save® Index Calculation Date, the Daily Target Weight of each Save® Index Component will be determined in accordance with the following formula:

$$W_{i,t}^{target} = W_{i,t}^{Ref} \times \text{TargetVolatilityExposure}_t, \text{ provided that:}$$

If the Daily Target Weight is greater than the Daily Target Weight Cap ( $DTWC_t$ ), determined as follows:

$DTWC_{i,t} = \min(\text{MaxComponentWeighting}_i, W_{i,t-1}^{\text{target}} + \text{MaxComponentDailyMove}_i)$ , then

$$W_{i,t}^{\text{target}} = DTWC_{i,t}$$

If the Daily Target Weight is less than the Daily Target Weight Floor ( $DTWF_t$ ) determined as follows:

$DTWF_{i,t} = \max(\text{MinComponentWeighting}_i, W_{i,t-1}^{\text{target}} - \text{MaxComponentDailyMove}_i)$ , then

$$W_{i,t}^{\text{target}} = DTWF_{i,t}$$

Where:

- $W_{i,t}^{\text{target}}$  means the Daily Target Weight of Save® Index Component i on Save® Index Calculation Date t;
- $W_{i,t-1}^{\text{target}}$  means the Daily Target Weight of Save® Index Component i on Save® Index Calculation Date t – 1;
- $W_{i,t}^{\text{Ref}}$  means the Daily Reference Weight of Save® Index Component i on Save® Index Calculation Date t;
- $\text{TargetVolatilityExposure}_t$  means the Target Volatility Exposure on Save® Index Calculation Date t;
- $\text{MinComponentWeighting}_i$  means the Minimum Component Weighting of Save® Index Component i;
- $\text{MaxComponentWeighting}_i$  means the Maximum Component Weighting of Save® Index Component i; and
- $\text{MaxComponentDailyMove}_i$  means the Maximum Component Daily Move of Save® Index Component i.

#### 4.6.1 Target Volatility Exposure

On the Group Weights Start Date (t = 503) and each following Save® Index Calculation Date, the Target Volatility Exposure is determined in accordance with the following formula:

$$\text{Target Volatility Exposure} = \min\left(150\%, \frac{TV}{PtfVol_t}\right)$$

Where:

- TV means the Target Volatility, equal to **2.5%**; and
- $PtfVol_t$  means the Daily Risk Parity Portfolio Volatility on Save® Index Calculation Date t.

#### 4.6.2 Daily Risk Parity Portfolio Volatility

On the Group Weights Start Date (t = 503) and each following Save® Index Calculation Date, the Daily Risk Parity Portfolio Volatility ( $PtfVol_t$ ) will be equal to the greatest volatility of the daily performance of the Daily Risk Parity Portfolio during the period of 20 Save® Index Calculation Dates preceding such Save® Index Calculation Date, that would have happened in accordance with the following formula:

$$PtfVol_t = \begin{cases} \max_{0 \leq s \leq 19} PtfVol_{t-s}, & \text{if } SPIKES_t < 25 \\ \sqrt{252 \times \frac{10}{9} \times \left[ \left( \frac{1}{10} \times \sum_{k=0}^9 \ln(RBsk_{t,t-k})^2 \right) - \left( \frac{1}{10} \times \sum_{k=0}^9 \ln(RBsk_{t,t-k}) \right)^2 \right]}, & \text{otherwise} \end{cases}$$

$$PtfVol_{t-s} = \sqrt{252 \times \frac{20}{19} \times \left[ \left( \frac{1}{20} \times \sum_{k=0}^{19} \ln(RBsk_{t,t-s-k})^2 \right) - \left( \frac{1}{20} \times \sum_{k=0}^{19} \ln(RBsk_{t,t-s-k}) \right)^2 \right]}, 0 \leq s \leq 19$$

Where:

- $PtfVol_t$  means the Daily Risk Parity Portfolio Volatility on Save® Index Calculation Date t;
- $PtfVol_{t-s}$  means the 20 Save® Index Calculation Date historical volatility of the Daily Risk Parity Portfolio calculated on Save® Index Calculation Date t – s;
- s is an integer ranging from 0 to 19;
- k is an integer ranging from 0 to 19;
- $\ln(x)$  is the natural logarithm of x; and
- $SPIKES_t$  is the SPIKES Volatility Index on Save® Index Calculation Date t, as published on Bloomberg page *SPIKES Index*.
- $RBsk_{t,t-s-k}$  means the daily performance of the Daily Risk Parity Portfolio from Save® Index Calculation Date t – s – k – 1 to Save® Index Calculation Date t – s – k, determined on Save® Index Calculation Date t, in accordance with the following formula:

$$RBsk_{t,t-s-k} = 1 + \sum_{i=1}^N W_{i,t}^{Ref} \times \left( \frac{Asset_{i,t-s-k}^{ER}}{Asset_{i,t-s-k-1}^{ER}} - 1 \right)$$

Where:

- N means the total number of Save® Index Components;
- $W_{i,t}^{Ref}$  means the Daily Reference Weight of Save® Index Component i on Save® Index Calculation Date t;
- $Asset_{i,t-s-k}^{ER}$  means the Daily Excess Return Level of Save® Index Component i on Save® Index Calculation Date t – s – k; and
- $Asset_{i,t-s-k-1}^{ER}$  means the Daily Excess Return Level of Save® Index Component i on Save® Index Calculation Date t – s – k – 1.

#### 4.7 Determination of Daily Used Quantity

The Daily Used Quantity ( $n_{i,t}^{used}$ ) of each Save® Index Component is determined in accordance with the following:

On the Group Weights Start Date (t = 503) and the immediately following Save® Index Calculation Date,

$$n_{i,p}^{used} = 0$$

If a Save® Index Calculation Date is not a Scheduled Trading Day with respect to a Save® Index Component, then

$$n_{i,t}^{used} = n_{i,t-1}^{used}$$

Otherwise,

$$n_{i,t}^{used} = n_{i,t-2}^{target}$$

Where:

- $n_{i,t}^{used}$  means the Daily Used Quantity of Save® Index Component i on Save® Index Calculation Date t;
- $n_{i,t-1}^{used}$  means the Daily Used Quantity of Save® Index Component i on Save® Index Calculation Date t – 1; and
- $n_{i,t-2}^{target}$  means the Daily Target Quantity of Save® Index Component i on Save® Index Calculation Date t – 2.

#### 4.7.1 Daily Target Quantity

On each Save® Index Calculation Date, on the Group Weights Start Date (t = 503) and afterwards, the Daily Target Quantity ( $n_{i,t}^{target}$ ) of each Save® Index Component will be determined in accordance with the following:

Prior to the Group Weights Start Date (t < 503),

$$n_{i,p}^{target} = 0$$

On any Save® Index Calculation Date on the Group Weights Start Date (t = 503) and afterwards, the Daily Target Quantity will be determined in accordance with the following formula:

$$n_{i,t}^{target} = n_{i,t-1}^{target} + \max\left(-MaxMoveQuantity_{i,t}, \min\left(MaxMoveQuantity_{i,t}, W_{i,t}^{target} \times \frac{DNPV_t}{Asset_{i,t}^{ER}} - n_{i,t-1}^{target}\right)\right)$$

Where:

- $n_{i,t}^{target}$  means the Daily Target Quantity of Save® Index Component i on Save® Index Calculation Date t;
- $n_{i,t-1}^{target}$  means the Daily Target Quantity of Save® Index Component i on Save® Index Calculation Date t – 1;
- $DNPV_t$  means the Daily Net Portfolio Value on Save® Index Calculation Date t;
- $Asset_{i,t}^{ER}$  means the Daily Excess Return Level of Save® Index Component i on Save® Index Calculation Date t;
- $W_{i,t}^{target}$  means the Daily Target Weight of Save® Index Component i on Save® Index Calculation Date t; and
- $MaxMoveQuantity_{i,t}$  means the absolute maximum daily change of quantity of Save® Index Component i on Save® Index Calculation Date t, determined in accordance with the following formula:
- $MaxMoveQuantity_{i,t} = MaxComponentDailyMove_i \times \frac{DNPV_t}{Asset_{i,t}^{ER}}$

- $\text{MaxComponentDailyMove}_i$  means the Maximum Component Daily Move of Save® Index Component i.

#### 4.8 Determination of Daily Excess Return Level

On each Save® Index Calculation Date, Daily Excess Return Level ( $\text{Asset}_{i,t}^{ER}$ ) for each Save® Index Component is calculated in accordance with the following:

If such Save® Index Component is an ETP Interest and if such Save® Index Calculation Date is a Scheduled Trading Day for such Save® Index Component,

$$\text{Asset}_{i,t}^{ER} = \text{Asset}_{i,t-1}^{ER} \times \left( \frac{\text{Asset}_{i,t} + d_{i,t}}{\text{Asset}_{i,t-1}} - \text{RATE}_{t-1} \times \frac{\text{Act}(t, t-1)}{360} \right)$$

Otherwise, if such Save® Index Component is an ETP Interest and if such Save® Index Calculation Date is not a Scheduled Trading Day for such Save® Index Component,

$$\text{Asset}_{i,t}^{ER} = \text{Asset}_{i,t-1}^{ER} \times \left( \frac{\text{Asset}_{i,t-1} + d_{i,t}}{\text{Asset}_{i,t-1}} - \text{RATE}_{t-1} \times \frac{\text{Act}(t, t-1)}{360} \right)$$

Where:

- $\text{Asset}_{i,t}^{ER}$  means the Daily Excess Return Level of Save® Index Component i on Save® Index Calculation Date t;
- $\text{Asset}_{i,t-1}^{ER}$  means the Daily Excess Return Level of Save® Index Component i on Save® Index Calculation Date t – 1;
- $\text{Asset}_{i,t}$  means the Settlement Price or Commodity Reference Price (as applicable) of Save® Index Component i on Save® Index Calculation Date t;
- $\text{Asset}_{i,t-1}$  means the Settlement Price or Commodity Reference Price (as applicable) of Save® Index Component i on the preceding Scheduled Trading Day that is also a Save® Index Calculation Date for such Save® Index Component i;
- $\text{RATE}_{t-1}$  means the level of the Save® Index Reference Rate that has been fixed two Business Days - according to the Federal Reserve System - prior to the preceding Save® Index Calculation Date for such Save® Index Component i, as described in Annex 2 - Table 1.B – “Save® Index Reference Rate”.
- $d_{i,t}$  means, in respect of a Save® Index Component that is an ETP Interest and on Save® Index Calculation Date t, (a) if such Save® Index Calculation Date t is an ex-distribution date for the relevant Save® Index Component i, the Gross Cash Dividend and distribution of such Save® Index Component i for such ex-distribution date; or (b) otherwise, 0.
- $\text{Act}(t, t-1)/360$  means the number of calendar days between t – 1 and t, divided by 360.

#### 4.9 ESG Index parameters

Save® ESG Index: Uses the following multipliers for risk budget as described in section 4.5.4:

- $\text{BudgetMul}_{i,t} = 1.4$ , if  $\delta_{i,t} > 0.65$

- $\text{BudgetMul}_{i,t} = 1.0$ , if  $0.45 \leq \delta_{i,t} \leq 0.65$
- $\text{BudgetMul}_{i,t} = 0.4$ , if  $\delta_{i,t} < 0.45$

## 5 Publication and Adjustments

### 5.1 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 SAVEESG1. Closing levels are disseminated at no later than 6pm New York time on each Business Day which is not a Disrupted Day.

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.

### 5.2 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.

### 5.3 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) the Exchange fails to open for trading during its regular trading session; or (b) a disruption event (see Section 5.4) or adjustment event (see Section 5.5) occurs.

### 5.4 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:

**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; 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.

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.

## 5.5 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 the Index.

## 5.6 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 5.5.

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

### 6.1 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.

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.

### 6.2 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.