Last update September 2026

WisdomTree Enhanced Commodity Index

1. Index Overview and Description

The WisdomTree Enhanced Commodity Index [referred to as "the Index"] uses a multi-factor strategy and is designed to track the performance of a diversified basket of approximately 20 commodities across 4 main commodity sectors: energy, agriculture, industrial metals and precious metals.

The base weightings for each commodity are determined by the Bloomberg® Commodity Index (BCOM). On a daily basis, the Index applies a systematic factor-based weighting overlay to overweight or underweight each commodity (excluding gold and silver) within defined caps and floors, based on three key factors: roll yield (Cross-sectional Backwardation), slope momentum (Time-series Backwardation), and price momentum (Time-series Momentum).

Excess and Total Return versions of the Index are calculated and published.

2. Key Features

2.1. Membership Criteria

Commodities that are listed on one or more eligible futures exchanges and can be priced by the third-party independent index calculation agent. In general, commodities need to be a component of Bloomberg® Commodity Index (BCOM).

2.2. Index Components

Exposure to each commodity is achieved through investment in the relevant Bloomberg Commodity Indices, as defined in the Annex 1 – Table 1 – Index Components.

Standard future based commodity Indices are comprised of commodity futures contracts. A commodity future contract is an agreement either to buy or sell a set amount of a physical commodity at a predetermined price for delivery within a predetermined delivery period (which is generally referred to as a "delivery month"). In order to avoid the delivery process and maintain a long futures position, contracts nearing delivery must be sold and replaced by the purchase of contracts that have not yet reached the delivery period. This process is known as the "roll" and consists in "rolling" the current futures position into the future contracts with the nearest delivery (the front month contract).
The Bloomberg Commodity Indices implement the roll methodology for each relevant commodity.

The details of the relevant Index Components methodology can be found at https://www.bloomberg.com/professional/products/indices/commodities/

2.3. Index weighting and capping

The base weightings for each commodity are determined by the Bloomberg® Commodity Index (BCOM). On a daily basis, the Index applies a systematic factor-based weighting overlay to overweight or underweight each commodity (excluding gold and silver) within defined caps and floors, based on three key factors: roll yield (Cross-sectional Backwardation), slope momentum (Time-series Backwardation), and price momentum (Time-series Momentum).

On a daily basis, the following commodity sectors are also subject to sector cap, as Petroleum is capped at 35%, Wheat at 20% cap, and Soybean at 20% cap, as detailed in Section 3.3.

The detailed factors overlay and index calculations are described in Section 3.

2.4. Base Date and Base Value

The Index was launched on July 29, 2025. The Index history starts from January 25, 2002 with a base value of 100. Historical backtesting is used to determine levels of the Index prior to the index launch date.

2.5. Index Maintenance

Index Maintenance includes monitoring and implementing the adjustments due to market disruption or other events. Those events might require adjustment for the relevant caps for the calculation of Index levels to ensure the underlying Index Components are tradable for users of the Index. The treatment of such events is evaluated by the Index provider and follow the treatment from the index calculation agent's standard methodology.

A Market Disruption Event ("MDE") occurs where a futures contract relevant to an Index Component reaches its exchange-imposed daily price limit, such that the contract cannot be reliably priced or traded. Where an MDE occurs in respect of a futures contract underlying an Index Component, the entire Index Component (and not solely the affected futures contract) is treated as disrupted and untradeable for that index calculation date. The Index Calculation Agent identifies disrupted Index Components through its constituent-level tradability reporting.

Where an Index Component is disrupted on any index calculation date, its Unit Weight is held flat at the value described in Section 3.3, rather than being recalculated to its target Capped Weight; no separate adjustment is made to the Index level in respect of the disruption. Once the Index Component is no longer disrupted, its Unit Weight resumes tracking its target Capped Weight in accordance with Section 3.3

3. Index Calculation and Dissemination

On each date, the Index Calculation Agent will perform the calculations and selections set forth below:

3.1. Calculation of the Excess Return Index (ER Index):

The value of the Excess Return Index on any index calculation date t (IER_t) is calculated in accordance with the following formula:

$$IER_t = IER_{t-1} + \sum_{i=1}^{NIC} UI_{t-1}^{i} \times \left(IC_t^i - IC_{t-1}^i\right)$$

Where:

- *NIC* is the number of Index Components comprised in the Index on date t;
- UI_{t-1}^{i} is the Unit Weight of Index Component i on date $t-1$;
- IC_t^i is the Settlement Price of Index Component i on date t;

3.2. Calculation of the Total Return Index (TR Index):

The value of the Total Return Index on any index calculation date t (ITR_t) is calculated in accordance with the following formula:

$$ITR_t = ITR_{t-1} \times \left(\frac{IER_t}{IER_{t-1}} + DCY_t - 1\right)$$

$$DCY_t = \left(1 + SOFR_{t-1} \times \frac{NCD(t-1,t)}{360}\right)$$

Where

- IER_t is the excess return index value on the index calculation date t;
- DCY_t is the daily cash collateral return on the index calculation date t;
- $NCD(t-1,t)$ is the number of calendar days between index calculation date t-1 and t;
- $SOFR_t$ is the most recent Secured Overnight Financing Rate (SOFR) published by the Federal Reserve Bank of New York (Bloomberg ticker: SOFRRATE Index).

The Index is calculated on an end-of-day basis based on the settlement values of the Index components determined by the designated third-party calculation agent. Currently, the Index is calculated by Bloomberg.

3.3. Calculation of the Unit Weights:

The Unit Weights UI_t^i for each Index Component i shall be calculated in accordance with the following provisions

If Index Component i is subject to an MDE on index calculation date t, then:

$$UI_t^i = UI_{t-1}^i$$

Otherwise:

$$UI_t^i = \frac{CW_{t-1}^i \times IER_t}{IC_t^i}$$

Where:

- CW_{t-1}^i is the Capped Weight of Index Component i on date $t-1$;
- IER_t is the excess return index value on the index calculation date t;
- IC_t^i is the Settlement Price of Index Component i on date t.

3.4. Calculation of the Capped Weights:

The Capped Weights CW_t^i for each Index Component i shall be calculated in accordance with the following provisions (subject to the technical tolerance level 1E-06.)

- Step 1: Set the Capped Weights to the Uncapped Weights:

$$CW_t^i = UW_t^i$$

- Step 2: Run an iterative process, whereby the following constraints will be applied to the Capped Weights:

i) Capped Weights must be lower than 20%

$$CW_t^i \leq 20\%$$

If any Capped Weights is above the threshold, then

$$CW_t^i = 20\%$$

ii) Capped Weights must be between the absolute and relative weight bands

$$\max\left(BCOMW_t^i - \text{ABSCAP}, \frac{BCOMW_t^i}{RELCAP}\right) \leq CW_t^i \leq min\left(BCOMW_t^i + \text{ABSCAP}, BCOMW_t^i * \text{RELCAP}\right)$$

If any Capped Weights is above or below these thresholds, then

$$\begin{cases} if\ CW_t^i < \max\left(BCOMW_t^i - \text{ABSCAP}, \frac{BCOMW_t^i}{RELCAP}\right), & CW_t^i = \max\left(BCOMW_t^i - \text{ABSCAP}, \frac{BCOMW_t^i}{RELCAP}\right) \\ if\ CW_t^i > min\left(BCOMW_t^i + \text{ABSCAP}, BCOMW_t^i * \text{RELCAP}\right), & CW_t^i = min\left(BCOMW_t^i + \text{ABSCAP}, BCOMW_t^i * \text{RELCAP}\right) \end{cases}$$

iii) Capped Weights for the commodities in sectors Petroleum, Wheat and Soybeans are subject to 35%, 20% and 20% cap for the sector

$$CW_t^i = Min\left[100\%; \frac{SectorialCap_k}{\left|\sum_{m \in I_k} CW_t^m\right|}\right] \times CW_t^i$$

iv) Check if the Capped Weights must sum to 100%

$$\sum_{i=1}^{NIC} CW_t^i = 100\%$$

- Step 3: If the constraints are not satisfied, renormalise the Capped Weights and run iteration again:

$$CW_t^i = \frac{CW_t^i}{\sum_{i=1}^{NIC} CW_t^i}$$

Where:

- $BCOMW_t^i$ means the BCOM percentage weight of index component i on date t;
- UW_t^i means the Uncapped Weights of index component i on date t;
- $ABSCAP = 7.5\%$;
- $RELCAP = 3$;
- $SectorialCap_k$ means the Sector Cap for the commodities in Sector 1 (Petroleum) 35%, 2 (Wheat) 20%, 3 (Soybean) 20% (as described in Annex 1, Table 1 – Index Components);
- I_k means all Index Components subject to Cap k (as described in Annex 1, *Table 1 – Index Components*); and
- NIC means the number of index components (24).

3.5. Calculation of the Uncapped Weights:

The Uncapped Weights UW_t^i for each Index Component i shall be calculated in accordance with the following formula:

$$UW_t^i = \frac{\sum_{j=1}^{3} NFW_t^{i,j}}{3}$$

Where:

- $NFW_t^{i,j}$ means the Normalised Factor Weights of index component i for factor j on date t.

3.6. Calculation of the Normalised Factor Weights:

The Normalised Factor Weights $NFW_t^{i,j}$ for each Index Component i for each of the three factors (j=1,2,3) shall be calculated in accordance with the following formula:

$$NFW_t^{i,j} = \frac{IFW_t^{i,j}}{\sum_{i=1}^{NIC} IFW_t^{i,j}}$$

Where:

- $IFW_t^{i,j}$ means the Initial Factor Weights of index component i for factor j on date t; and
- NIC means the number of index components (24).

3.7. Calculation of the Initial Factor Weights:

The Initial Factor Weights $IFW_t^{i,j}$ for each Index Component i for each of the three factors (j=1,2,3) shall be calculated in accordance with the following provisions:

1) For all three signals and index components i=12 (Gold) and i=13 (Silver):

$$IFW_t^{i,j} = BCOMW_t^i$$

2) Otherwise:

$$IFW_t^{i,j} = BCOMW_t^i + BCOMW_t^i * Signal_t^{i,j}$$

Where:

- $BCOMW_t^i$ means the BCOM percentage weight of index component i on date t; and
- $Signal_t^{i,j}$ is the signals of the 3 respective factors calculated in accordance with the provisions of Annex 2 $Signal_t^{i,TSB}$, Annex 3 $Signal_t^{i,XSB}$ and Annex 4 $Signal_t^{i,TSM}$ on date t.

Annex 1 – Index Components and Selection Indicators

Table 1 – Index Components

Index Component i=	Index Component i:	Index Component Currency	Price Source	Ticker	Sector Number	Sector Classification
1	Bloomberg Roll Select WTI Crude Oil Subindex	USD	Bloomberg	BCOMRCL	1	Petroleum Sector
2	Bloomberg Roll Select Brent Crude Subindex	USD	Bloomberg	BCOMRCO	1	Petroleum Sector
3	Bloomberg Commodity Heating Oil Seasonal Roll Subindex	USD	Bloomberg	BCOMSHO	1	Petroleum Sector
4a*	Bloomberg Commodity Unleaded Gas Seasonal Roll Subindex	USD	Bloomberg	BCOMSHU	1	Petroleum Sector
4b*	Bloomberg Commodity RBOB Gas Seasonal Roll Subindex	USD	Bloomberg	BCOMSRB	1	Petroleum Sector
4c*	Bloomberg Seasonal Bi-Annual RBOB Gas Index	USD	Bloomberg	BCOMSBRB	1	Petroleum Sector
5	Bloomberg Commodity Natural Gas Seasonal Roll Subindex	USD	Bloomberg	BCOMSNG	N/A	N/A
6	Bloomberg Roll Select Gas Oil Excess Return Index	USD	Bloomberg	BCOMRGO	1	Petroleum Sector
7	Bloomberg Roll Select Aluminum Subindex	USD	Bloomberg	BCOMRAL	N/A	N/A
8	Bloomberg Roll Select Zinc Subindex	USD	Bloomberg	BCOMRZS	N/A	N/A
9	Bloomberg Roll Select Lead Subindex	USD	Bloomberg	BCOMRPB	N/A	N/A
10	Bloomberg Roll Select Nickel Subindex	USD	Bloomberg	BCOMRNI	N/A	N/A
11	Bloomberg Roll Select Copper Subindex	USD	Bloomberg	BCOMRHG	N/A	N/A
12	Bloomberg Gold Subindex	USD	Bloomberg	BCOMGC	N/A	N/A
13	Bloomberg Silver Subindex	USD	Bloomberg	BCOMSI	N/A	N/A
14	Bloomberg Commodity Lean Hogs Seasonal Roll Subindex	USD	Bloomberg	BCOMSLH	N/A	N/A
15	Bloomberg Commodity Live Cattle Seasonal Roll Subindex	USD	Bloomberg	BCOMSLC	N/A	N/A
16	Bloomberg Commodity Wheat Seasonal Roll Subindex	USD	Bloomberg	BCOMSWH	2	Wheat Sector
17	Bloomberg Commodity Kansas Wheat Seasonal Roll Subindex	USD	Bloomberg	BCOMSKW	2	Wheat Sector
18	Bloomberg Commodity Corn Seasonal Roll Subindex	USD	Bloomberg	BCOMSCN	N/A	N/A
19	Bloomberg Commodity Soybean Seasonal Roll Subindex	USD	Bloomberg	BCOMSSY	3	Soybean Sector
20	Bloomberg Commodity Soy Oil Seasonal Roll Subindex	USD	Bloomberg	BCOMSBO	3	Soybean Sector
21	Bloomberg Commodity Soy Meal Seasonal Roll Subindex	USD	Bloomberg	BCOMSSM	3	Soybean Sector
22	Bloomberg Roll Select Coffee Subindex	USD	Bloomberg	BCOMRKC	N/A	N/A
23	Bloomberg Commodity Sugar Seasonal Roll Subindex	USD	Bloomberg	BCOMSSB	N/A	N/A
24	Bloomberg Commodity Cotton Seasonal Roll Subindex	USD	Bloomberg	BCOMSCT	N/A	N/A
25	Bloomberg Roll Select Cocoa Subindex	USD	Bloomberg	BCOMRCC	N/A	N/A

* Until and including 4 May 2006 constituent for Gasoline is the BCOMSHU. From and including 5 May 2006 constituent for Gasoline is the BCOMSRB. Over the five business days, beginning after market close on 5 June 2026 and completing after market close on 11 June 2026, 20% of the existing BCOMSRB position will be closed and rolled into BCOMSBRB each day. Effective 12 June 2026, the Index will use BCOMSBRB as its sole RBOB gasoline sub-index component going forward.

Table 2 – Index Component Selection Indicators

In respect of each Index Component where the Index Component Selection Indicators are the Front Contract, Back Contract and F0 Index, as set forth below:

	Index Component	Price Source	Front Contract		Back Contract		F0 Index
			Pricing Page	Index Component Selection Indicator Value	Pricing Page	Index Component Selection Indicator Value	Ticker
1	Bloomberg Roll Select WTI Crude Oil Subindex	NYMEX	CL1 Comdty	Daily official settlement price	CL13 Comdty	Daily official settlement price	BCOMCL
2	Bloomberg Roll Select Brent Crude Subindex	ICE	CO1 Comdty	Daily official settlement price	CO13 Comdty	Daily official settlement price	BCOMCO
3	Bloomberg Commodity Heating Oil Seasonal Roll Subindex	NYMEX	HO1 Comdty	Daily official settlement price	HO13 Comdty	Daily official settlement price	BCOMHO
4	Bloomberg Commodity RBOB Gas Seasonal Roll Subindex	NYMEX	XB1 Comdty*	Daily official settlement price	XB13 Comdty*	Daily official settlement price	BCOMRB
5	Bloomberg Commodity Natural Gas Seasonal Roll Subindex	NYMEX	NG1 Comdty	Daily official settlement price	NG13 Comdty	Daily official settlement price	BCOMNG
6	Bloomberg Roll Select Gas Oil Excess Return Index	ICE	QS1 Comdty	Daily official settlement price	QS13 Comdty	Daily official settlement price	BCOMGO
7	Bloomberg Roll Select Aluminum Subindex	LME	LA1 Comdty	Daily official settlement price	LA13 Comdty	Daily official settlement price	BCOMAL
8	Bloomberg Roll Select Zinc Subindex	LME	LX1 Comdty	Daily official settlement price	LX13 Comdty	Daily official settlement price	BCOMZS
9	Bloomberg Roll Select Lead Subindex	LME	LL1 Comdty	Daily official settlement price	LL13 Comdty	Daily official settlement price	BCOMPB
10	Bloomberg Roll Select Nickel Subindex	LME	LN1 Comdty	Daily official settlement price	LN13 Comdty	Daily official settlement price	BCOMNI
11	Bloomberg Roll Select Copper Subindex	COMEX	HG1 Comdty	Daily official settlement price	HG6 Comdty	Daily official settlement price	BCOMHG
12	Bloomberg Gold Subindex	COMEX	GC1 Comdty	Daily official settlement price	GC6 Comdty	Daily official settlement price	BCOMGC
13	Bloomberg Silver Subindex	COMEX	SI1 Comdty	Daily official settlement price	SI6 Comdty	Daily official settlement price	BCOMSI
14	Bloomberg Commodity Lean Hogs Seasonal Roll Subindex	CME	LH1 Comdty	Daily official settlement price	LH9 Comdty	Daily official settlement price	BCOMLH
15	Bloomberg Commodity Live Cattle Seasonal Roll Subindex	CME	LC1 Comdty	Daily official settlement price	LC7 Comdty	Daily official settlement price	BCOMLC
16	Bloomberg Commodity Wheat Seasonal Roll Subindex	CBOT	W 1 Comdty	Daily official settlement price	W 6 Comdty	Daily official settlement price	BCOMWH
17	Bloomberg Commodity	CBOT	KW1	Daily official	KW6	Daily official	BCOMKW

	Kansas Wheat Seasonal Roll Subindex		Comdty	settlement price	Comdty	settlement price	
18	Bloomberg Commodity Corn Seasonal Roll Subindex	CBOT	CN1 Comdty	Daily official settlement price	C 6 Comdty	Daily official settlement price	BCOMCN
19	Bloomberg Commodity Soybean Seasonal Roll Subindex	CBOT	S 1 Comdty	Daily official settlement price	S 8 Comdty	Daily official settlement price	BCOMSY
20	Bloomberg Commodity Soy Oil Seasonal Roll Subindex	CBOT	BO1 Comdty	Daily official settlement price	BO9 Comdty	Daily official settlement price	BCOMBO
21	Bloomberg Commodity Soy Meal Seasonal Roll Subindex	CBOT	SM1 Comdty	Daily official settlement price	SM9 Comdty	Daily official settlement price	BCOMSM
22	Bloomberg Roll Select Coffee Subindex	ICE	KC1 Comdty	Daily official settlement price	KC6 Comdty	Daily official settlement price	BCOMKC
23	Bloomberg Commodity Sugar Seasonal Roll Subindex	ICE	SB1 Comdty	Daily official settlement price	SB5 Comdty	Daily official settlement price	BCOMSB
24	Bloomberg Commodity Cotton Seasonal Roll Subindex	ICE	CT1 Comdty	Daily official settlement price	CT6 Comdty	Daily official settlement price	BCOMCT
25	Bloomberg Roll Select Cocoa Subindex	ICE	CC1 Comdty	Daily official settlement price	CC6 Comdty	Daily official settlement price	BCOMCC

* XB commodity data until and including 4 May 2006 is coming from HU1 Comdty and HU13 Comdty

Annex 2 - The Methodology for the Time-series Backwardation Signal:

1. Calculation of the Signal:

The Signal ($Signal_t^{i,TSB}$) for Index Component i shall be calculated in accordance with the following formula:

$$Signal_t^{i,TSB} = \min\left(\max\left(VAS_t^i * SLOPE^{TSB}, LOWER\right), UPPER\right)$$

Where:

- VAS_t^i is the Volatility-adjusted signal of Index Component i on date t*;*
- $SLOPE^{TSB} = 10$ is slope used for rescaling the Time-series Backwardation signal*;*
- $LOWER = -1$ is the lower bound on the Signal*; and*
- $UPPER = 1$ is the upper bound on the Signal.

2. Calculation of the Volatility-adjusted Signal:

The Volatility-adjusted Signal (VAS_t^i) for Index Component i shall be calculated in accordance with the following formula:

On t=0:

$$VAS_t^i = 0$$

Thereafter:

$$VAS_t^i = \frac{SDS_t^i}{\sigma_t^i}$$

Where:

- SDS_t^i is the Smoothed Daily Signal of Index Component i on date *t*; and
- σ_t^i is the Rolling Volatility of the Forward Curve Slope for Index Component i on date t.

3. Calculation of the Rolling Volatility of the Forward Curve Slope:

The Rolling Volatility (σ_t^i) for Index Component i shall be calculated in accordance with the following formula:

$$\sigma_t^i = \sqrt{252 \cdot var_t^i}$$

Where:
On t=0:

$$var_t^i = 0$$

Thereafter:

$$var_t^i = (1-\alpha) \cdot \left[var_{t-1}^i + \alpha \cdot \left(Return_t^i - EWMA(Return_t^i)\right)^2\right]$$

- $Return_t^i$ is the Daily Logarithmic Return with respect to the Smoothed Daily Signals Index Component i on date t.

$$Return_t^i = \ln(1 + SDS_t^i)$$

Calculation of the Exponentially Weighted Moving Average:
The Exponentially Weighted Moving Average ($EWMA(x_t)$) of a given variable x_t shall be calculated in accordance with the following formula:

$$EWMA(x_t) = \alpha \cdot x_t + (1-\alpha) \cdot EWMA(x_{t-1})$$

Where:

- α is the decay factor, with $\alpha = 2/(span + 1)$, where span is 40.

4. Calculation of the Smoothed Daily Signals:

The Smoothed Daily Signal (SDS_t^i) for Index Component i shall be calculated in accordance with the following provisions:

On t=0:

$$SDS_t^i = 0$$

Thereafter:

$$SDS_t^i = (1-\alpha) * SDS_{t-1}^i + \alpha * DS_t^i$$

Where:

- α is the decay factor, with $\alpha = 2/(span + 1)$, where span is 40; and
- DS_t^i is the Daily Signal of Index Component i on date *t*.

5. Calculation of the Daily Signals:

The Daily Signal for Index Component i shall be calculated in accordance with the following provisions:

On t=0:

$$DS_t^i = 0$$

Thereafter:

$$DS_t^i = \frac{Backwardation_t^i}{Backwardation_{t-1}^i} - 1$$

Where:

- $Backwardation_t^i$ is the Degree of Backwardation of Index Component i on date t.

6. Calculation of the Degree of Backwardation:

The Degree of Backwardation ($Backwardation_t^i$) of Index Component i shall be calculated in accordance with the following formula:

$$Backwardation_t^i = \frac{Front_t^i}{Back_t^i}$$

Where:

- $Back_t^i$ is the Index Component Selection Indicator Value (as defined in Table 2 (*Index Component Selection Indicators*) of Annex 1) of the Back Contract in relation to Index Component i on date t, as published by the relevant Price Source on the Pricing Page;

- $Front_t^i$ is the Index Component Selection Indicator Value (as defined in Table 2 (*Index Component Selection Indicators)* of Annex 1) of the Front Contract in relation to Index Component i on date t, as published by the relevant Price Source on the Pricing Page.

Annex 3 - The Methodology for the Cross-sectional Backwardation Signal:

1. Calculation of the Signal

The Signal ($Signal_t^{i,XSB}$) for Index Component i shall be calculated in accordance with the following formula:

$$Signal_t^{i,XSB} = \min\left(\max\left(SDS_t^i * SLOPE^{XSB}, LOWER\right), UPPER\right)$$

Where:

- SDS_t^i is the Moving sum of the Daily Score of Index Component i on date t*;*
- $SLOPE^{XSB} = 0.1$ is slope used for rescaling the Cross-sectional Backwardation signal*;*
- $LOWER = -1$ is the lower bound on the Signal*; and*
- $UPPER = 1$ is the upper bound on the Signal.

2. Calculate Moving Sum of Daily Score

The Moving Sum of the Daily Score (SDS_t^i) for Index Component i shall be calculated in accordance with the following formula:

On t < 10,

$$SDS_t^i = 0$$

Thereafter

$$SDS_t^i = \sum_{k=t-9}^{t} DS_k^i$$

Where:

- DS_k^i is the Daily Score of Index Component i on date k.

3. Calculation of the Daily Score

The Daily Score for Index Component i shall be determined in accordance with the following formulae:

(1) Where NIC is an even number:

$$DS_t^i = -1 \; if \; RANK_t^i \leq \frac{NIC}{2}$$

$$DS_t^i = +1 \; if \; RANK_t^i > \frac{NIC}{2}$$

(2) Where NIC is an odd number:

$$DS_t^i = -1 \; if \; RANK_t^i < \frac{NIC + 1}{2}$$

$$DS_t^i = 0 \; if \; RANK_t^i = \frac{NIC + 1}{2}$$

$$DS_t^i = +1 \; if \; RANK_t^i > \frac{NIC + 1}{2}$$

Where:

- $RANK_t^i$ is the ranking of the Index Component i on date t after being ranked from highest to lowest by $Backwardation_t^i$; for the avoidance of doubt, the lowest ranking is 1;
- $Backwardation_t^i$ is the Degree of Backwardation of Index Component i on date t;
- NIC is the number of Index Components comprising the Index on date t.

If, on any date, the Degree of Backwardation in respect of two (2) or more Index Components is equal, they will be ranked from highest to lowest according to their respective weights in BCOM index.

4. Calculation of the Degree of Backwardation:

The Degree of Backwardation ($Backwardation_t^i$) of Index Component i shall be calculated in accordance with the following formula:

$$Backwardation_t^i = \frac{Front_t^i}{Back_t^i}$$

Where:

- $Back_t^i$ is the Index Component Selection Indicator Value (as defined in Table 2 (*Index Component Selection Indicators*) of Annex 1) of the Back Contract in relation to Index Component i on date t, as published by the relevant Price Source on the Pricing Page;

- $Front_t^i$ is the Index Component Selection Indicator Value (as defined in Table 2 (*Index Component Selection Indicators)* of Annex 1) of the Front Contract in relation to Index Component i on date t, as published by the relevant Price Source on the Pricing Page.

The Degree of Backwardation of an Index Component i will only be calculated

from their BCOM Inclusion Date:

Commodity	BCOM Inclusion Date
CO	2012-01-09
KW	2013-01-08
SM	2013-01-08
QS	2019-01-08
LL	2023-01-09

Annex 4 - The Methodology for the Time-series Momentum Signal:

1. Calculation of the Signal

The Signal ($Signal_t^{i,TSM}$) for Index Component i shall be calculated in accordance with the following formula:

$$Signal_t^{i,TSM} = \min\left(\max\left(FS_t^i * SLOPE^{TSM}, LOWER\right), UPPER\right)$$

Where:

- FS_t^i is the Final Score of Index Component i on date t*;*
- $SLOPE^{TSM} = 10$ is slope used for rescaling the Time-series Momentum Final Score*;*
- $LOWER = -1$ is the lower bound on the Signal*; and*
- $UPPER = 1$ is the upper bound on the Signal.

2. Calculation of the Final Scores:

On each index calculation day t, the Final Score for Index Component i shall be calculated in accordance with the following formula:

On t=0

$$FS_t^i = 0$$

Thereafter:

$$FS_t^i = (1 - \alpha) * FS_{t-1}^i + \alpha * DMA_t^i$$

Where:

- α is the decay factor with $\alpha = 0.1$; and
- DMA_t^i is the Daily Moving Average of Index Component i on date *t*.

3. Calculation of the Daily Moving Average:

On each date *t*, the Daily Moving Average for Index Component I shall be calculated in accordance with the following formula:

(i) On t < 126,

$$DMA_t^i = 0$$

(ii) Thereafter:

$$DMA_t^i = \frac{1}{126} \sum_{k=t-125}^{t} DailyPerfSign_k^i$$

Where:

- $DailyPerfSign_k^i$ is the Daily Performance Sign of Index Component i on date k.

4. Calculation of the Daily Performance Sign:

On each date t, the Daily Performance Sign of Index Component i shall be calculated in accordance with the following formula:

$$DailyPerfSign_t^i = sign(IC_t^i - IC_{t-1}^i)$$

Where:

- IC_t^i is the F0 Index Settlement Price for Index Component i on date t (as defined in Table 2 (*Index Component Selection Indicators)* of Annex 1).