BCOM weighted F3 Beta Congestion Index

Index Manual
May 2018

NOTES AND DISCLAIMERS

BASIS OF PROVISION

This Index Manual sets out the rules for the Macquarie BCOM weighted F3 Beta Congestion Index (the *Index*) and reflects the methodology for determining the composition and calculation of the weights and holdings within the Index (the Methodology section). This Index Manual is the exclusive property of Macquarie Bank Limited (the *Index Sponsor*). It has been provided to you solely for your internal use and you may not, without the prior written consent of the Index Sponsor, distribute, reproduce, in whole or in part, summarise, quote from or otherwise publicly refer to the contents of the Index Manual or use it as the basis of any financial instrument.

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HISTORICAL VALUES OF THE INDEX

Hypothetical back-tested historical values of the Index are not indicative of future performance. In addition, trading periods that have historically evidenced relatively less futures price dislocation due to commodity index hedging activity may not continue to evidence lower levels of price dislocation, for instance if the pattern of commodity index hedging activity changes in future.

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This document relates only to this Index and does not relate to the exchange-traded physical commodities underlying any of the Index components. Users of the Index should not conclude that the inclusion of a futures contract in the Benchmark Index is any form of investment recommendation of the futures contract or the underlying exchange-traded physical commodity by Bloomberg, UBS AG, UBS Securities or any of their subsidiaries or affiliates. The information in this document regarding the Index components has been derived solely from publicly available documents. None of Bloomberg, UBS AG, UBS Securities or any of their subsidiaries or affiliates has made any due diligence inquiries with respect to the Index components. None of Bloomberg, UBS AG, UBS Securities or any of their subsidiaries or affiliates makes any representation that any publicly available information regarding the Benchmark Index components, including without limitation a description of factors that affect the prices of such components, are accurate or complete.

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INTRODUCTION

The Macquarie BCOM weighted F3 Beta Congestion Index (the *Index*), is designed as a commodity index benchmark for long exposure to commodity markets, while optimising the individual Components of the Index to reduce exposure to the pricing dislocations associated with trading periods that are congested with commodity index hedging activity.

SELECTION OF COMMODITIES UNDERLYING THE INDEX

The commodities underlying the Index correspond to, and are periodically weighted in accordance with, the commodities underlying the Bloomberg Commodity Index 3 month forward (the *Benchmark Index*). The Benchmark Index selects commodities and assigns weights to those commodities in accordance with a set of rules based upon global production and the availability of commodities futures contracts with sufficient liquidity to sustain investment.

Information on the composition and weighting methodology of the Benchmark Index can be found in the Index Methodology to the Bloomberg Commodity Index Family, available at https://data.bloomberglp.com/indices/sites/2/2018/02/BCOM-Methodology-January-2018_FINAL-2.pdf.

THE INDEX COMPONENTS

The commodities selected for inclusion in the Index are not easily investable on a direct and replicable basis. Futures contracts on commodities, however, represent a widely utilized synthetic proxy for direct investment in commodities. Accordingly, each Component of the Index is an index that is constituted by, and reflects the price performance of, an exchange traded futures contract relating to a commodity underlying the Index. In order to ensure the continuity of each Component index, when the futures contract that underlies a Component approaches expiration, it will be replaced by an identical contract with a later expiration (the Index will 'roll' from one contract into the next). Each underlying index thus tracks a sequence of futures contracts relating to a single commodity.

The most commonly traded commodity index products roll their contracts during five days starting on the 5th business day of the month and ending on the 9th business days of the month. Trading (i.e. rolling) away from this standard roll period, to avoid price pressure, is the optimization principle behind the congestion strategy underlying the Single Commodity Congestion Beta Indices that constitute the Components of the Index. Each Single Commodity Congestion Beta Index will calculate a proxy signal for commodity index flows and decide to (i) roll before the standard roll period if the proxy signal points to commodity index inflows or (ii) roll after the standard roll period if the proxy signal suggests there have been commodity index outflows over the past month. The period for rolling prior to the standard roll period and the period for rolling after the standard roll period have been selected by the Index Sponsor taking into account historical price performance (the tendency of these periods to exhibit less price dislocation) and its view of the trading days that have sufficient liquidity in the Underlying Contracts to sustain the trading activity resulting from expected levels of investment in the Index.

Information on the Single Commodity Congestion Beta Indices can be found in the Index Manual, dated June 2017, of the Macquarie Single Commodity Congestion Beta Indices, available at http://static.macquarie.com/dafiles/Internet/mgl/global/shared/corporate/trading-and-hedging/commodities/macquarie-single-commodity-congestion-beta-indices.pdf.

GENERAL NOTES ON THE INDICES AND THE METHODOLOGY

The Index is designed to be replicable and readily accessible to market participants and is calculated daily in an Excess Return format.

The Index is calculated and maintained by the Index Calculation Agent and supervised by the Index Sponsor and Oversight Committee, as described below. Once the Index has been created, the Components and Weights (or, if appropriate, formula for calculating Weights) will not be amended going forward. All determinations with regard to the Index are made following the rules set out in this document, without discretion by the Index Sponsor or Index Calculation Agent. The Index Sponsor will publish the Index Manual as well as any announcements regarding calculations relevant to the Index, such as new Target Weight calculations, in a timely manner on its website, http://www.macquarie.com/commodityindexdocumentation.

The Index is not based upon submissions provided by third parties (or an affiliate of the Index Sponsor or Index Calculation Agent) or expert judgment. The Index is based upon actual transaction data sourced from regulated markets and exchanges.

INDEX GOVERNANCE

The Index Sponsor has established an independent oversight committee (the *Oversight Committee*) to review and oversee management of the Index and resolve any issues that arise. The Oversight Committee is comprised of the following designees, each an employee of Macquarie Bank Limited:

- A Managing Director in the Metals, Mining and Agriculture division of the Commodities and Financial Markets group;
- A Director from the Legal and Governance group;
- A representative from the Technology division of the Corporate Operations Group;
- A representative from the Risk division of the Risk Management Group; and
- A representative from the Compliance division of the Risk Management Group.

Each member of the Oversight Committee is sufficiently knowledgeable about commodity futures contracts and the commodities markets in general, and is required to act in good faith and in a commercially reasonable manner. The Index Sponsor will make available upon request the names of the individuals forming the Oversight Committee.

The Oversight Committee has considered the features of the Index, the intended, expected or known usage of the Index and the materiality of existing or potential conflicts of interest and, taking these into account, has approved the Methodology and this Index Manual. The Oversight Committee is also charged with overseeing the daily management and operations of the Index. It will be available on an ad hoc basis for the approval of any changes to the Methodology, any contemplated cancellation of the Index and the resolution of any issues which arise in relation to the Index.

INDEX SPONSOR AND INDEX CALCULATION AGENT

THE INDEX SPONSOR

Macquarie Bank Limited is the Index Sponsor. Notwithstanding anything to the contrary, the Index Sponsor will maintain all ownership rights, expressed or otherwise, with respect to the Index, including the ability to license, sell or transfer any or all of its ownership rights with respect to the Index, including but not limited to terminating and appointing any successor Index Calculation Agent. The Index Calculation Agent is appointed by the Index Sponsor to calculate and maintain each Index from and until such time that the Index Sponsor terminates its relationship with the current Index Calculation Agent and appoints a successor index calculation agent. Any such termination or appointment of a successor will be subject to the approval of the Oversight Committee.

The Index Sponsor may, from time to time, revise, amend and/or supplement this Manual. If such revisions or supplement materially affect the calculation of the Index, the Index Sponsor shall publish a new Manual no later than 30 days prior to implementation of the revised or supplemented rules. If it is not reasonably practicable to publish revised Manual 30 days prior to such changes, the revised Manual will be published as soon as reasonably practicable.

THE INDEX CALCULATION AGENT

The Technology division of the Corporate Operations Group (*COG*) of Macquarie Bank Limited acts as "Index Calculation Agent" in respect of the Index as of the date of this Manual. The methodology employed by the Index Calculation Agent in determining the composition and calculation of the Index is set out in the calculations and procedures described in this document.

RELATIONSHIP OF THE INDEX SPONSOR AND THE INDEX CALCULATION AGENT

The Index Calculation Agent is appointed by the Index Sponsor, subject to the approval of the Index Oversight Committee. While, as of the date of publication of these rules, both the Index Sponsor and the Index Calculation Agent form part of Macquarie Bank Limited, they are independent divisions within the bank and employees discharging the obligations of the Index Calculation Agent have separate lines of reporting and accountability from the employees performing the functions of the Index Sponsor.

DEFINITIONS

Benchmark Dollar Weight, in respect of a Commodity and an Index Business Day, is the allocation percentage to that Commodity in the Benchmark Index, as defined in Section 4.

Benchmark Index, is Bloomberg Commodity Index 3 month forward (BCOMF3 Index), the Index Methodology of which is can be access athttps://data.bloomberglp.com/indices/sites/2/2018/02/BCOM-Methodology-January-2018_FINAL-2.pdf.

Benchmark Underlying Contract, in respect of a Commodity and an Index Business Day, is the Contract in the contract schedule table in the documentation of the Benchmark Index, for the calendar month immediately following — with January following December — the calendar month to which that particular Index Business Day belongs.

The current set of **Components** are the single commodity indices specified in the table below:

i	Index Name	Commodity	Index Ticker
1	Macquarie 3 Month Forward Dynamic Pre/Post-Roll Soybean Oil Type A Index ER	Soybean Oil	DYSDBOF3E
2	Macquarie 3 Month Forward Dynamic Pre/Post-Roll Heating Oil Type A Index ER	Heating Oil	DYSDHOF3E
3	Macquarie 3 Month Forward Dynamic Pre/Post-Roll Copper (COMEX) Type A Index ER	Copper (COMEX)	DYSDHGF3E
4	Macquarie 3 Month Forward Dynamic Pre/Post-Roll Live Cattle Type A Index ER	Live Cattle	DYSDLCF3E
5	Macquarie 3 Month Forward Dynamic Pre/Post-Roll Lean Hogs Type A Index ER	Lean Hogs	DYSDLHF3E
6	Macquarie 3 Month Forward Dynamic Pre/Post-Roll Natural Gas Type A Index ER	Natural Gas	DYSDNGF3E
7	Macquarie 3 Month Forward Dynamic Pre/Post-Roll Nickel Type A Index ER	Nickel	DYSDLNF3E
8	Macquarie 3 Month Forward Dynamic Pre/Post-Roll RBOB Gasoline Type A Index ER	RBOB Gasoline	DYSDXBF3E
9	Macquarie 3 Month Forward Dynamic Pre/Post-Roll Corn Type A Index ER	Corn	DYSDCF3E
10	Macquarie 3 Month Forward Dynamic Pre/Post-Roll Crude Oil (WTI) Type A Index ER	Crude Oil (WTI)	DYSDCLF3E
11	Macquarie 3 Month Forward Dynamic Pre/Post-Roll Soybeans Type A Index ER	Soybeans	DYSDSF3E
12	Macquarie 3 Month Forward Dynamic Pre/Post-Roll Gold Type A Index ER	Gold	DYSDGCF3E
13	Macquarie 3 Month Forward Dynamic Pre/Post-Roll Wheat Type A Index ER	Wheat	DYSDWF3E
14	Macquarie 3 Month Forward Dynamic Pre/Post-Roll Crude Oil (Brent) Type A Index ER	Crude Oil (Brent)	DYSDCOF3E
15	Macquarie 3 Month Forward Dynamic Pre/Post-Roll Cotton Type A Index ER	Cotton	DYSDCTF3E
16	Macquarie 3 Month Forward Dynamic Pre/Post-Roll Coffee Type A Index ER	Coffee	DYSDKCF3E
17	Macquarie 3 Month Forward Dynamic Pre/Post-Roll Silver Type A Index ER	Silver	DYSDSIF3E
18	Macquarie 3 Month Forward Dynamic Pre/Post-Roll Kansas Wheat Type A Index ER	Kansas Wheat	DYSDKWF3E
19	Macquarie 3 Month Forward Dynamic Pre/Post-Roll Soybean Meal Type A Index ER	Soybean Meal	DYSDSMF3E

20	Macquarie 3 Month Forward Dynamic Pre/Post-Roll Sugar Type A Index ER	Sugar	DYSDSBF3E
21	Macquarie 3 Month Forward Dynamic Pre/Post-Roll Zinc Type A Index ER	Zinc	DYSDLXF3E
22	Macquarie 3 Month Forward Dynamic Pre/Post-Roll Aluminium Type A Index ER	Aluminium	DYSDLAF3E

This set of Components will change if the composition of the Benchmark Index changes, such that the set of underlying commodities of the Components will always match the set of underlying commodities in the Benchmark Index. Any such change will be implemented on the Holdings Calculation Date immediately following the effective date of change of composition of the Benchmark Index. If a new commodity is included in the Benchmark Index, the new Component will be specified with the same roll periods as specified for the existing Components.

The calculation and methodology of the Macquarie Single Commodity Congestion Beta Indices is described in the "Macquarie Single Commodity Congestion Beta Indices" Index Manual, which is available on request or at http://static.macquarie.com/dafiles/Internet/mgl/global/shared/corporate/trading-and-hedging/commodities/macquarie-single-commodity-congestion-beta-indices.pdf.

Component Level, in respect of an Index Business Day, is the closing level of each Component as published by the index calculation agent of the Component indices. If the Index Business Day is not a day on which the Component is scheduled to be published, the Component Level for that day will be the most recent available Component Level on the most recent publication day.

Commodity, is each commodity corresponding to each Component.

Contract, is a futures contract traded in a Trading Facility and having a Commodity as underlying.

Equivalent Holdings, in respect of an Index Business Day, are numbers which, if applied as Holdings to the Underlying Contracts of the Index, would perfectly describe the performance of the Index in respect of that Index Business Day. Equivalent Holdings are determined in order to facilitate calculation of the Index where any Underlying Contract is subject to a Market Disruption Event. The calculation of Equivalent Holdings is set out in Section 3 (*Market Disruption Events*) of the Index Calculation section below.

Equivalent Target Holdings, in respect of an Index Business Day, are numbers which, if applied as Holdings to the Underlying Contracts of the Index, would perfectly describe what the performance of the Index would have been if the Holdings of the Index were instead equal to the Target Holdings of the Index. Equivalent Target Holdings are determined in order to facilitate calculation of the Index where any Underlying Contract is subject to a Market Disruption Event. The calculation of Equivalent Target Holdings is set out in Section 3 (*Market Disruption Events*) of the Index Calculation section below.

Expiration, is the date established by relevant Trading Facility for each Contract and is typically the date on which trading on that particular Contract ceases.

Holding, in respect of a Component and an Index Business Day, is a number which is determined by the Index Calculation Agent as described in Section 1 (*Holdings Calculation*) of the Index Calculation section below. The Holding in respect of a Component is determined in order to calculate the daily

Index Level and represents the proportionate effect on the Index Level of a change in the relevant Component level.

Holdings Calculation Date, is the Index Business Day on which the Target Holdings are periodically calculated in order to rebalance the Holding of each Component back to the specified Weights. The Holdings Calculation Date is the 9th Index Business Day of each calendar month.

Index Business Days, are the days in the Index Calendar.

Index Calendar, is the set of trading days of the NYSE Euronext Holiday schedule (https://www.nyse.com/markets/hours-calendars).

Initial Index Level, is 100.

Index Level, is the level of the Index that is calculated according to the relevant section of this Methodology.

Index Start Date, is 31 December 2003.

Index Sponsor, is Macquarie Bank Limited (Macquarie), the entity that calculates and publishes or announces (directly or through an agent) the daily level of the Index.

Index Ticker, is Excess Return – MQCP170E Index (Bloomberg).

Settlement Prices, are the prices, expressed in US dollars, published by the relevant exchange or trading facility and referred by them as the settlement price for that particular contract. If any Index Business Day is not a business day of the relevant exchange or trading facility, then the Settlement Price of that particular contract will be the most recent available price on the most recent business day of the relevant exchange or trading facility.

Target Holdings, are a set of multipliers, derived from the Weights, which are utilized to rebalance the Components of the Index on each Holdings Calculation Date. Calculation of Target Holdings is described in Section 1 (*Holdings Calculation*) of the Index Calculation section below.

Trading Facility, means each regulated futures exchange, facility or platform on or through which the Underlying Contracts are traded.

The **Underlying Contracts**, in respect of an Index Business Day are all Contracts which are, directly or indirectly, an underlying of the Index or, if that Index Business Day is a Holdings Calculation Date, scheduled to be an underlying of the Index according to the methodology of that Index or that of its Components.

Weights, are the weights periodically established by the Weighting Methodology for each Component.

Weighting Methodology, is the weight allocation procedure derived from the Benchmark Index and detailed in Section 4 (*Allocation of Weights to the Components*) of the Index Calculation section.

INDEX CALCULATION

On a daily basis the Index replicates the returns obtained by holding a basket of Components, the Weights of which are determined according to Section 4 (*Allocation of Weights to the Components*) of this Index Calculation section and rebalanced periodically according to Section 1 (*Holdings Calculation*) of this Index Calculation section. The following sections detail how the Index Calculation Agent will calculate the daily Index Levels of the Index.

SECTION 1: HOLDINGS CALCULATION

On any Index Business Day, *t*, each Component *i* has a Holding, $H_{i,t}$, associated with it. This Holding represents the amount by which the Index Level will change when the level of that Component changes. In this section, we outline the Holdings, $\{H_{1,t}, ..., H_{n,t}\}$, calculations on any Index Business Day, *t*.

On the Holdings Calculation Date of the Index, the Holding of each Component i, is rebalanced in accordance with the Weighting Methodology set out in Section 4 (*Allocation of Weights to the Components*) of this Index Calculation section.

TARGET HOLDINGS CALCULATION ON A HOLDINGS CALCULATION DATE

The calculation of the Target Holdings on a Holdings Calculation Date, *R*, requires as input the set of Weights in respect of that Holdings Calculation Date R and the Component Levels of the Components on the Holdings Calculations Date, *R*.

On any Holdings Calculation Date, *R*, let the Weight of each Component *i* be denoted by $W_{i,R}$ so that $\{W_{1,R}, ..., W_{n,R}\}$ are the Weights of the *n* Components in the Index as determined by the Weighting Methodology of the Index in respect of the Holdings Calculation Date *R*. Analogously, let $\{C_{1,R}, ..., C_{n,R}\}$ be the set of Component Levels of the Components on the Holdings Calculation Date, *R*. The Index Target Holdings, $\{TH_{1,R}, ..., TH_{n,R}\}$, for each of the *n* Components in the Index are calculated according to the formula below:

$$TH_{i,R} = I_R \times \frac{W_{i,R}}{C_{i,R}} \ for \ every \ Component \ i = 1, ..., n$$

where I_R is the Index Level on the Holdings Calculation Date R.

For example if, on the Holdings Calculation Date, R, the Index level is 100, the Component Level is 80 and the Weight of that Component is 40%, then the Target Holding of that Component in respect of that Holdings Calculation Date will be equal to 100*(0.4)/80 = 0.5

DAILY HOLDINGS CALCULATION

On any Index Business Day, *t*, the set of Holdings $\{H_{1,t}, ..., H_{n,t}\}$ is calculated according to the following rule:

    (i)   If *t* is the Index Business Day immediately following the Holdings Calculation Date R, the Holdings $\{H_{1,t}, ..., H_{n,t}\}$ are set equal to the Target Holdings $\{TH_{1,R}, ..., TH_{n,R}\}$ calculated on that Holdings Calculations Date.

(ii)   On any other Index Business Day, *t*, the Holding of each Component *i* on that day, $H_{i,t}$, is set to be equal to the Holding of that particular Component on the previous Index Business Day, $H_{i,t-1}$.

SECTION 2: DAILY INDEX CALCULATION

The Index represents the performance of a synthetic, unfunded exposure to the Underlying Contracts of the Index, that is, the Index tracks what an investor would receive if it purchased or sold the futures contracts ultimately underlying the Index without taking into consideration the cost of investment capital. On each Index Business Day, *t*, the Index level, I_t, is calculated (rounded to seven significant figures) based on the value of the Index on the preceding Index Business Day, I_{t-1}, and the change in level of each of the Components, according to the formula:

$$I_t = I_{t-1} + \sum_i H_{i,t}\left(C_{i,t} - C_{i,t-1}\right)$$

where:

I_t is the Index Level on the close of day t;
$H_{i,t}$ is the Holding of Component i on the Index Business Day t;
$C_{i,t}$ is the level of Component i on the Index Business Day t;
t-1   is the Index Business Day immediately preceding Index Business Day t

The Index Start Date as well as the Initial Index Level, which is the value of the Index on the Index Start Date, are specified in the Definitions section above.

For example, if the Index were comprised of two components (instead of 13, for simplicity) which had the following Component levels:

	Component 1	Component 2
Index Business Day t-1	32.48	31.21
Index Business Day t	32.83	31.49

and the following Holdings:

	Holding
Component 1	1.72

Component 2	1.48

then if the Index Level on Index Business Day t-1 was equal to 102.0564, the Index Level on Index Business Day t will be equal to:

$$I_t = 102.0564 + 1.72 \times (32.83 - 32.48) + 1.48 \times (31.49 - 31.21) = 102.244$$

The Index Level on Business Day t would be 102.244.

SECTION 3: MARKET DISRUPTION EVENTS

The Index is ultimately comprised of a set of futures on physical commodities (the *Underlying Contracts*). On any given Index Business Day, disruptions can occur that prevent these Underlying Contracts from being traded. When this happens, it is necessary for the calculations of the Index to be adjusted so that it remains replicable by market participants i.e. adjustments must be made to the Index calculations to ensure that the Index Levels reflect futures prices that were attainable in the market at the times they would need to be traded in order to replicate the performance of the Index.

On a Holdings Calculation Date, this is generally achieved by delaying any changes to the composition of each Component (i.e. 'rolling' out of a nearby contract into a longer dated contract) that is directly dependent on the disrupted Underlying Contracts. On any other Index Business Day, given that the replication of the Index does not require trading of Underlying Contracts on such days, in the event that a price is not available for a particular Underlying Contract, the previous available Settlement Price will be used by the Index Calculation Agent in order for the calculations in respect of a particular Index Business Day to take place.

With respect to the calculation of the Index, a "Market Disruption Event" means the occurrence, in respect of one or more Underlying Contracts, of one or more of the following events, as determined by the Index Calculation Agent:

> (i)   a failure by the relevant Trading Facility to report or announce a settlement price for an Underlying Contract;
>
> (ii)   all trading in an Underlying Contract of the Index is suspended and does not recommence at least ten minutes prior to the actual closing time of the regular trading session;
>
> (iii)   the settlement price published by the relevant Trading Facility for one (or more) Underlying Contracts is a "limit price", which typically means that the Trading Facility published settlement price for such Contract for a trading day has increased or decreased from the previous trading day's settlement price by the maximum amount permitted under applicable rules of the Trading Facility;
>
> (iv)   any other event, if the Index Sponsor reasonably determines that the event materially interferes with the ability of market participants to hedge the Index;
>
> (v)   the occurrence of a Market Disruption Event in respect of an Underlying Contract that shares the same Commodity.

The Index Calculation Agent will determine the Index Level under Market Disruption Events in accordance with the following section.

When a Market Disruption Event occurs or is continuing on a particular Index Business Day, the Index Calculation Agent will determine the basket of futures contracts that is equivalent to the basket of Components that the Index represents, in respect of that Index Business Day. Once this basket is determined, the Index Calculation Agent will make such adjustments as are necessary to ensure the Index Levels reflect contract prices that were attainable in the market at the times they would need to be traded in order to replicate the performance of the index, as described below.

If, on a Holdings Calculation Date R, a Market Disruption Event with respect to one or more Underlying Contracts occurs (such day, a "Disrupted Holdings Calculation Date" and each such Contract a "Disrupted Contract"), then the Index Calculation for subsequent Index Business Days, until the second consecutive non-disrupted Index Business Day, will be modified as follows:

(i)   As long as a Market Disruption Event that occurred or was continuing on the Holdings Calculation Date R is continuing, the Index Level will be calculated according to the following formula:

$$I_t = I_{t-1} + \sum_j H'_{j,t}\left(f_{j,t} - f_{j,t-1}\right)$$

where

$H'_{j,t}$ is the Equivalent Holding for Underlying Contract j as calculated according to sub-paragraphs (ii)-(v) below

$f_{j,t}$ is the settlement price of Underlying Contract j as of the Index Business Day t

(ii)   The Index Calculation Agent shall determine the Equivalent Holdings and the Equivalent Target Holdings with respect to the Index.

The Equivalent Holdings is the set of holdings $\{H'_{1,R}, \dots, H'_{m,R}\}$ of Underlying Contracts $\{F_1...F_m\}$ which perfectly describes the returns of the Index in the time period from the immediately preceding Holdings Calculation Date to the Holdings Calculation Date R.

The Equivalent Target Holdings is a set of target holdings $\{TH'_{1,t}, \dots, TH'_{m,t}\}$ for the Underlying Contracts, which perfectly describes the returns of the Index on the days following the Disrupted Holdings Calculation Date and until the first subsequent Holdings Calculation Date.

The Equivalent Holdings and the Equivalent Target Holdings shall be determined for all Underlying Contracts, therefore some $H'_{j,t}$ and/or $TH'_{j,t}$ may have a value of 0.

(iii)   On the Index Business Day immediately following a Disrupted Holdings Calculation Date and until all Market Disruption Events that occurred on the Disrupted Holdings Calculation Date have ceased, the Equivalent Holdings $\{H'_{1,t}, \dots, H'_{m,t}\}$ are calculated based on the following formula:

$$H'_{j,t} = TH'_{j,R} + SCH_{j,t}$$

where:

$TH'_{j,R}$ means the Equivalent Target Holding of Contract *j* on Holdings Calculation Date R

$SCH_{j,t}$ means $\begin{cases} H'_{j,t-1} - TH'_{j,R} & \text{if } j \text{ is a Disrupted Contract; or} \\ 0 \text{ otherwise} \end{cases}$

$H'_{j,t-1}$ means the Equivalent Holding of Contract j on Index Business Day t-1

(iv) For each Disrupted Contract *j*, the Equivalent Holding H'$_{j,t}$ shall be equal to the Equivalent Target Holding TH'$_{j,t}$ on the first Index Business Day following a Disrupted Holdings Calculation Date on which no Market Disruption Event in respect of that Contract j occurs or is continuing. If a Market Disruption Event continues for more than 5 Index Business Days following a Disrupted Holdings Calculation Date, the Index Calculation Agent shall, in good faith, determine the levels of each Disrupted Component *j* that will be used in the calculation of Holdings and Index Levels.

(v) For each Underlying Contract that is not a Disrupted Contract, the Holding H$_{j,t}$ on the Index Business Day immediately following the Disrupted Holdings Calculation Date shall be the Equivalent Target Holding.

(vi) On the second consecutive non-disrupted Index Business Day immediately following a Disrupted Holdings Calculation Date, the Index Calculation Agent will resume calculation of the Index in accordance with section 2.

Further explanation of Holdings and Equivalent Holdings:

In respect of any given Index Business Day, the Index is represented as a basket of its Components with a Holding in respect of each Component determined on the immediately preceding Holdings Calculation Date according to the Holdings Calculation section above. For the purposes of determination of whether disruption to futures trading affects the Index, however, the Holdings of the Index must instead be expressed in terms of the futures contracts that ultimately underlie the Index. As the Index is a linear basket of its Components, and because the same holds true of all components of those Components, (whether they themselves are futures or indices), it is possible to work through the Holdings of the Index, and, by ultimately breaking down each index to the futures contracts that comprise it, determine a new set of Holdings that, in respect of that Index Business Day, exactly represents the composition of the Index in terms of its Underlying Contracts.

SECTION 4: ALLOCATION OF WEIGHTS TO THE COMPONENTS

On each Holdings Calculation Date, the Weight, $W_{i,R}$, of each Component *i* of the Index shall be equal to the Benchmark Dollar Weight corresponding to the commodity that underlies each Component *i*, as specified in the Components definition table (in the Definitions section).

The Benchmark Dollar Weight, $BW_{i,R}$, for each Commodity *i*, underlying the Benchmark Index is determined, on each Holdings Calculation Date, as follows:

$$W_{i,R} = \frac{M_{i,R} \times BUC_{i,R}}{\sum_{j=1}^{n} M_{j,R} \times BUC_{j,R}}$$

Where:

$M_{i,R}$ is the 'Contract Production Weight' for commodity *i* as specified in the documentation of the Benchmark Index

$BUC_{i,R}$ is the Settlement Price of the Benchmark Underlying Contract of commodity *i* on the Holdings Calculation Date *R*

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