Macquarie Backwardation vs Contango Index

Index Manual
April 2018

NOTES AND DISCLAIMERS

BASIS OF PROVISION

This Index Manual sets out the rules for the Macquarie Backwardation vs Contango Index (the *Index*) and reflects the methodology for determining the composition and calculation of the Index (the Methodology section).

The Index Manual assumes the reader is a sophisticated financial market participant, with the knowledge and expertise to understand the investment strategy described herein and the associated risks. It is unsuitable for a retail or unsophisticated audience.

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Hypothetical back-tested historical values of the Index are not indicative of future performance.

The Index Sponsor makes no representation as to the accuracy or appropriateness of, and shall have no liability to you or any other entity for any loss or damage, direct or indirect, arising from the use of the historical values.

DISCLAIMER OF LIABILITY

The Methodology is published for information purposes only and does not create any legally binding obligation on the part of the Index Sponsor, Index Calculation Agent and/or their affiliates. This document is intended to provide a summary of the index it purports to describe. The Index Sponsor expressly disclaims (to the fullest extent permitted by applicable law) all warranties (express, statutory or implied) regarding this document and the Methodology or the Index, including but not limited to, all warranties of merchantability, fitness for a particular purpose (including investment by regulated funds) and all warranties arising from course of performance, course of dealing or usage of trade and their equivalents under applicable laws of any jurisdiction. In particular, the Index Sponsor and Index Calculation Agent do not warrant or guarantee the accuracy or timeliness of calculations of the Index value and do not warrant or guarantee the availability of any Index value on any particular date or at any particular time. The Index Sponsor and Index Calculation Agent shall have no liability to any person for delays, omissions or interruptions in the delivery of the Index, including as a result of the failure of prices to be published in respect of an Underlying Contract or as a result of a Contract failing to trade for any reason. Although the Index Calculation Agent will obtain information concerning Underlying Contracts from publicly available sources it believes reliable, it will not independently verify this information. Accordingly, no representation, warranty or undertaking (express or implied) is made by the Index Sponsor or Index Calculation Agent as to the accuracy and completeness of information concerning any Index.

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NOTICES

The Index is based on Underlying Contracts, as described in the Methodology. The Index Sponsor and/or its affiliates actively trade Underlying Contracts and options on Underlying Contracts. The Index Sponsor and/or its affiliates also actively enter into or trade and market securities, swaps, options, derivatives, and related instruments which are linked to the performance of these Underlying Contracts or are linked to the performance of an Index. The Index Sponsor and/or its affiliates may underwrite or issue other securities or financial instruments indexed to the Index, and the Index Sponsor or its affiliates may license an Index for publication or for use by unaffiliated third parties. These activities could present conflicts of interest and could affect the value of the Index. The Index Sponsor trades or may trade as principal in instruments (or related derivatives) linked to an index described in this document, and may have proprietary positions in the instruments (or related derivatives). The Index Sponsor may make a market in such instruments (or related derivatives), which may in extreme circumstances affect the levels of the Index described.

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INTRODUCTION

The Macquarie Backwardation vs Contango Index (hereinafter, the *Index*), is designed as a commodity index benchmark for long-short exposure to the commodity markets. It is designed as a tradable index that is readily accessible to market participants and is calculated daily in an Excess Return format.

The Index represents a replicable benchmark for investment in a broad spectrum of commodities chosen based on global production with sufficient liquidity in order to replicate investment. Physical commodities 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. For this reason, the Index is constituted by, and reflects the price performance of, a basket of a broad spectrum of exchange traded futures contract relating to a physical commodity. Each futures contract relating to a physical commodity is a Component in the Index. In order to ensure the continuity of the Index, when the futures contract that underlies a Component of the Index approaches expiration, it will be replaced by an identical contract with a later expiration (the Component will 'roll' from one contract into the next). Each Component thus tracks a sequence of futures contracts relating to a single commodity (the universe of tradable calendar futures contracts on a commodity, known as the 'futures curve').

The investment strategy of the Index is commonly referred to as "commodity backwardation". Backwardation is the market condition where prices of futures contracts nearer to expiry (front of the futures curve) are higher than prices of futures contracts further from expiry (back of the futures curve). This can be caused by a number of factors depending on the asset class. In commodities, the shape of the futures curve is mainly affected by supply and demand conditions of the underlying commodity, with commodities where demand outpaces supply generally being in "backwardation" and those commodities which are oversupplied generally being in "contango" (the opposite of backwardation, with higher futures prices in the back of the futures curve than the front). The strategy will generally go long the Components with the most backwardated commodities and short the Components with the least backwardated commodities. If the shape of the futures curve stays the same, the strategy profits from the higher roll yields on the long exposure versus lower roll yields on the short exposure.

To isolate this source of return in the Index attributed to backwardation and minimize correlation to the broader commodities market, the Index will avoid taking outright positions in the commodities market and will have a neutral allocation across commodities (weights add up to zero).

The Index is calculated and maintained by the Index Calculation Agent and supervised by the Index Sponsor and Supervisory Committee, as described below.

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

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 UNIVERSE OF SELECTABLE COMMODITIES

The Index invests in a universe of 25 different Commodities across energy, industrial metals, grains, softs and livestock, chosen to have sufficient liquidity in the Underlying Contracts to sustain the trading activity resulting from the expected levels of investment in the Index.

Index exposure to deferred or front month commodity futures contracts is obtained via allocation to Macquarie Single Commodity indices. Each such index tracks a sequence of futures contracts relating to a single commodity and a particular point on the futures curve (either deferred or front month).

The short allocation of the index will be invested in Macquarie Single Commodity Indices that take exposure to the front month contracts. The long allocation of the index will be invested in Macquarie Single Commodity Roll Yield Enhanced Indices that take exposure to the contract with the least negative/most positive implied roll yield.

Information on the Macquarie Single Commodity Indices and Macquarie Single Commodity Roll Yield Enhanced Indices can be found in their respective Index Manuals, available at:

- Macquarie   Single   Commodity   Indices: http://static.macquarie.com/dafiles/Internet/mgl/global/shared/corporate/trading-and-hedging/commodities/macquarie-single-commodity-indices.pdf
- Macquarie   Single   Commodity   Roll   Yield   Enhanced   Indices: https://static.macquarie.com/dafiles/Internet/mgl/global/shared/corporate/trading-and-hedging/commodities/macquarie-roll-yield-enhanced-indices.pdf

The universe of 25 commodities has been determined by the Index Sponsor as a result of a one-off process prior to the creation of the Index and will not change for the life of the Index.

SELECTION OF COMPONENTS

The Index will take a concentrated long exposure to a subset of 10 to 12 of the most backwardated commodities and short exposure to a subset of 10 to 12 of the least backwardated (most contangoed) commodities.

Each month, the Index selects the concentrated long and short exposures from the universe of 25 Commodities. The selection is made with reference to the Backwardation Signal of each Commodity and ensures sector diversification by selecting one third of the most backwardated commodities in each sector (3 Agricultural Commodities, 1 Livestock Commodity, 2 Energy Commodities and 2 Industrial Metals Commodities) for the long exposure and one third of the least backwardated commodities in each sector (3 Agricultural Commodities, 1 Livestock Commodity, 2 Energy Commodities and 2 Industrial Metals Commodities) for the short exposure.

The selected Commodities are then assigned an Initial Weight that is equal to the Weight of that Commodity in the Benchmark Index. The set of Initial Weights is then scaled up proportionally such that the sum of the weights is 100% (for the long and the short exposure in isolation) and subject to diversification/liquidity caps.

GENERAL NOTES ON THE INDEX 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. To facilitate an understanding of the calculations, this Index Manual contains various worked examples which demonstrate the types of calculations needed to calculate the level of the Index on a particular date. 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 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, save as such discretion as is called for in the rules. 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 Commodity Markets and Financing division of the Commodities and Global 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 the 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 the 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

Backwardated Commodity, is a Commodity with a strictly positive Backwardation Signal.

Backwardation, is a futures market when prices of futures contracts closest to expiry (front of the futures curve) are higher than prices of contracts with longer maturity (back of the futures curve).

Backwardation Signal, is a numeric value assigned to each Commodity which is calculated in accordance with the Weighting Methodology and is directly proportional to the level of Backwardation for that Commodity.

Benchmark Weight, in respect of each Commodity, is the weight described in Table 1 in the definition of Components under the "Benchmark Weight" column for the relevant Commodity row.

Cap, in respect of each Commodity is the maximum weight (long or short) that can be allocated to the Components associated with that Commodity, as specified in Table 1 under the definition of Components.

Commodity, is each commodity corresponding to each Component, as specified in Table 1.

Components, are the single commodity indices specified in columns F0 Index (for short exposure) and RYE Index (for long exposure), in the table below, so each Commodity has two associated Components, one for long exposure and one for short exposure.

TABLE 1

i	Commodity	Sector	F0 Index	RYE Index	Group	Cap	Benchmark Weight
1	Soybean Oil	Agriculture	MQSDBOER	MQSRBOER	None	2.5%	1.30%
2	Corn	Agriculture	MQSDCER	MQSRCER	None	10.0%	5.50%
3	Cocoa	Agriculture	MQSDCCER	MQSRCCER	None	5.0%	2.75%
4	Cotton	Agriculture	MQSDCTER	MQSRCTER	None	2.5%	1.30%
5	Coffee	Agriculture	MQSDKCER	MQSRKCER	None	10.0%	2.75%
6	Wheat (Kansas)	Agriculture	MQSDKWER	MQSRKWER	None	10.0%	2.75%
7	Soybeans	Agriculture	MQSDSER	MQSRSER	None	5.0%	2.75%
8	Sugar	Agriculture	MQSDSBER	MQSRSBER	None	10.0%	5.50%
9	Soybean Meal	Agriculture	MQSDSMER	MQSRSMER	None	2.5%	1.30%
10	Wheat (Chicago)	Agriculture	MQSDWER	MQSRWER	None	10.0%	5.50%
11	Feeder Cattle	Livestock	MQSDFCER	MQSRFCER	None	2.5%	1.30%
12	Live Cattle	Livestock	MQSDLCER	MQSRLCER	None	5.0%	2.75%
13	Lean Hogs	Livestock	MQSDLHER	MQSRLHER	None	2.5%	1.30%
14	WTI Crude Oil	Energy	MQSDCLER	MQSRCLER	Petroleum		5.50%
15	Heating Oil	Energy	MQSDHOER	MQSRHOER	Petroleum		5.50%
16	Brent Crude Oil	Energy	MQSDCOER	MQSRCOER	Petroleum	20% / 35%	5.50%
17	Gas Oil	Energy	MQSDQSER	MQSRQSER	Petroleum		5.50%
18	Unleaded Gasoline	Energy	MQSDXBER	MQSRXBER	Petroleum		5.50%

#	Name	Category			Commodity	Weight Cap*	
19	Natural Gas	Energy	MQSDNGER	MQSRNGER	Natural Gas	20% / 35%	5.50%
20	High Grade Copper	Industrial Metal	MQSDHGER	MQSRHGER	Copper	20% / 35%	5.50%
21	Copper	Industrial Metal	MQSCLPER	MQSRLPER	Copper		5.50%
22	Aluminium	Industrial Metal	MQSDLAER	MQSRLAER	Aluminium	20% / 35%	5.50%
23	Nickel	Industrial Metal	MQSDLNER	MQSRLNER	Nickel	20% / 35%	5.50%
24	Lead	Industrial Metal	MQSDLLER	MQSRLLER	None	5.0%	2.75%
25	Zinc	Industrial Metal	MQSDLXER	MQSRLXER	Zinc	20% / 35%	5.50%

* Weight Caps are described in the Weighting Methodology Section (Section 4).

The calculation and methodology of the Macquarie Single Commodity Indices is described in the "Macquarie Single Commodity 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-indices.pdf.

The calculation and methodology of the Macquarie Single Commodity Roll Yield Enhanced Indices is described in the "Macquarie Single Commodity Roll Yield Enhanced Indices" Index Manual, which is available on request or at https://static.macquarie.com/dafiles/Internet/mgl/global/shared/corporate/trading-and-hedging/commodities/macquarie-roll-yield-enhanced-indices.pdf.

Component Level, in respect of an Index Business Day, is the closing level of each Component as determined by the Index Calculation Agent. 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.

Contango, is a futures market when prices of futures contracts closest to expiry (front of the futures curve) are lower than prices of contracts with longer maturity (back of the futures curve).

Contangoed Commodity, is a Commodity with a strictly negative Backwardation Signal.

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

Designated Contract Month-Year, is the Month/Year pair used in the name of each contract as established by the relevant Trading Facility and is typically the calendar month/year within which a futures contract can be settled by delivery or the calendar month/year in which the delivery period begins.

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.

F0 Index, in respect of each Commodity, is the Single Commodity Index described in Table 1 in the definition of Components under the "F0 Index" column for the relevant Commodity row.

Final Weight, is the weight applied (after capping) to each Component represented in the Index from one rebalancing to the next.

The **First Notice Date**, is established for each Contract by the relevant Trading Facility and is typically the first day on which notices of intent to deliver against futures market positions can be received.

The **Front Month Contract**, on an Index Business Day is the contract closest to Expiration but with First Notice Date (if available) and Expiration succeeding the current Index Business Day for which a Settlement Price can be obtained.

Group, in respect of each Commodity as specified in Table 1 in the definition of Components. Groups are utilised in the capping procedure described in Section 4 (*Weighting Methodology*).

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 2 (*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 last 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 New York Mercantile Exchange schedule.

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 Rebalance Days, is the set of Index Business Days comprised of the Holdings Calculation Date and the subsequent two Index Business Days.

Index Start Date, is 27 Feb 2004.

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 – **MQCP725E** Index (Bloomberg).

Initial Weight, is the starting weight applied (before capping) to each Component represented in the Index from one rebalancing to the next.

The **One-Year Ahead Contract**, on an Index Business Day is the contract with Designated Contract Month-Year exactly one year ahead of the Designated Contract Month-Year of the Front Month Contract. If the Settlement Price of such contract cannot be obtained, the One-Year Ahead Contract on that Index Business Day is the contract closest to Expiration for which a Settlement Price can be obtained provided that its Designated Contract Month-Year exceeds the Designated Contract Month-Year of the Front Month Contract by at least one year. In the event that no such contract exists, the One-Year Ahead Contract will be the contract furthest to Expiration for which a Settlement Price can be obtained.

RYE Index, in respect of each Commodity, is the Single Commodity Index described in Table 1 in the definition of Components under the "RYE Index" column for the relevant Commodity row.

Sector, in respect of each Commodity, is the sector described in Table 1 in the definition of Components under the "Sector" column for the relevant Commodity row.

Selected Backwardated Commodities Set, the set of Commodities selected for long exposure, as defined in Section 4 (*Weighting Methodology*) of the Index Calculation section.

Selected Contangoed Commodities Set, the set of Commodities selected for short exposure, as defined in Section 4 (*Weighting Methodology*) of the Index Calculation section.

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.

Temporary Weight, is the weight assigned to each Component during the iterative capping procedure before they are finalised.

Trading Facility, means each regulated futures exchange, facility or platform on or through which the Contracts underlying an Index 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 detailed in Section 4 (*Weighting Methodology*) of the Index Calculation section.

Weights Capping, is a weights alteration process that is part of the Weighting Methodology which and is detailed in Section 4 (*Weighting Methodology*) of the Index Calculation section.

INDEX CALCULATION

On a daily basis the Index replicates the returns obtained by holding a basket of Components (each a Single Commodity Index), the Weights of which are determined according to Weighting Methodology 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** describes the calculation of Holdings, which are intermediate calculations that enable the Index Calculation Agent to reflect the changes stemming from the Index rebalance in the returns of the Index;
- **Section 2** describes the day-to-day calculation of the Index Level;
- **Section 3** describes Market Disruption Events and the additional calculations that the Index Calculation Agent will perform to determine the Index Level during and following any market disruptions.
- **Section 4** describes the Weighting Methodology;

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 proportion in which the Index Level will change when the level of that Component changes. In this section, the Holdings, $\{H_{1,t}, ..., H_{n,t}\}$, calculations on any Index Business Day, *t* is outlined.

On each Index Rebalance Day, the Holding of each Component i, is rebalanced in accordance with the Target Holdings and the Weighting Methodology.

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 Index Business Day immediately preceding 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 $\{C_{1,R-1}, ..., C_{n,R-1}\}$ be the set of Component Levels of the Components on the Index Business Day immediately preceding 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:

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

where I_{R-1} is the Index Level on the Index Business Day immediately preceding Holdings Calculation Date R.

For example if, on the Index Business Day preceding a 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 $\{H_{1,t}, ..., H_{n,t}\}$ for each of the n Components in the Index are calculated according to the formula below:

$$H_{i,t} = H_{i,R} + \frac{TH_{i,R} - H_{i,R}}{3} \ for \ every \ Component \ i = 1, ..., n$$

(ii)   If t is the second Index Business Day immediately following the Holdings Calculation Date R, the Holdings $\{H_{1,t}, ..., H_{n,t}\}$ for each of the n Components in the Index are calculated according to the formula below:

$$H_{i,t} = H_{i,R} + 2 \times \frac{TH_{i,R} - H_{i,R}}{3} \ for \ every \ Component \ i = 1, ..., n$$

(iii)   If t is the third Index Business Day immediately following the Holdings Calculation Date R, the Holdings $\{H_{1,t}, ..., H_{n,t}\}$ for each of the n Components in the Index are calculated according to the formula below:

$$H_{i,t} = TH_{i,R} \ for \ every \ Component \ i = 1, ..., n$$

(iv)   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 in an 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 eight decimal places) 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:

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

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 and 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 (for simplicity) which had the following Component levels:

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

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:

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

The Index Level on Business Day t would be 102.244.

SECTION 3: MARKET DISRUPTION EVENTS

The Index is comprised of a number of Components which are comprised of one or more futures contracts on a Commodity (each an Underlying Contract). 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 Index to be adjusted so that the Index remains replicable by market participants i.e. adjustments must be made to the Index calculations to ensure that the Index Levels reflect contract prices

that are attainable in the market at the times they need to be traded in order to replicate the performance of the Index.

With respect to the calculation of the Index on an Index Business Day, 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 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 Underlying 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)   the index sponsor of a Component fails to publish a Component Level;

(v)   any other event, if the Index Calculation Agent reasonably determines that the event materially interferes with the ability of the market participants to hedge the Index; and

(vi)   the occurrence of a Market Disruption Event in respect of an Underlying Contract that shares the same commodity.

INDEX CALCULATION UNDER MARKET DISRUPTION EVENTS

When a Market Disruption Event occurs or is continuing on an Index Business Day, the Index Calculation Agent will determine the basket of Underlying Contracts that is equivalent to the basket of Components that the Index represents on that Index Business Day. Once this equivalent basket is determined, the Index Calculation Agent will make such adjustments as are necessary, as further described below.

If, on an Index Rebalance Day R (hereinafter called the **Disrupted Index Rebalance Day**)*,* a Market Disruption Event with respect to one or more Underlying Contracts occurs (each such Underlying Contract a **Disrupted Contract** until the first Index Business Day on which no Market Disruption Event exists or is continuing in respect of that Underlying Contract), then the Index calculation on the Index Business Days immediately following the Disrupted Index Rebalance Day until the second consecutive non-disrupted Index Business Day will be modified as follows:

(i)   As long as a Market Disruption Event that occurred on the Disrupted Index Rebalance Day R is continuing, on each subsequent disrupted Index Business Day t, the Excess Return 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 on Index Business Day t, as calculated according to points (ii)-(v) below

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

(ii) On the Disrupted Index Rebalance Day R, the Index Calculation Agent shall determine the Equivalent Holdings and the Equivalent Target Holdings with respect to the Index. The Equivalent Holdings is a set of holdings $\{H'_{1,R}, ..., H'_{m,R}\}$ which corresponds to the Underlying Contracts $\{F_1...F_m\}$ of the Index and perfectly describes the returns of the Index on the Disrupted Index Rebalance Day R. The Equivalent Target Holdings is a set of target holdings $\{TH'_{1,R}, ..., TH'_{m,R}\}$ for the Underlying Contracts, which perfectly describes the returns of the Index on the Index Business Day immediately following the Disrupted Index Rebalance Day R had the Market Disruption Event(s) not occurred. The Equivalent Holdings are a representation of the basket of Underlying Contracts underlying the Index on the Disrupted Index Rebalance Day R, and the Equivalent Target Holdings are a representation of the basket of Underlying Contracts that will underlie the Index on the Index Business Day immediately following the Disrupted Index Rebalance Day R had the Market Disruption Event(s) not occurred. The Equivalent Holdings and the Equivalent Target Holdings shall be determined for all Underlying Contracts, therefore some $H'_{j,R}$ and/or $TH'_{j,R}$ may have a value of 0.

(iii) On any Index Business Day t immediately following the Disrupted Index Rebalance Day R and until all Market Disruption Events that occurred on the Disrupted Index Rebalance Day have ceased, the Equivalent Holdings $\{H'_{1,t}, ..., H'_{m,t}\}$ 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 Disrupted Index Rebalance Day R

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

$H'_{j,R}$ means the Equivalent Holding of Contract j on Disrupted Index Rebalance Day R

(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 the Disrupted Index Rebalance Day R on which no Market Disruption Event in respect of that Disrupted Contract j occurs or is continuing. If a Market Disruption Event continues for more than 5 Index Business Days following the Disrupted Index Rebalance Day R, the Index Calculation Agent shall, in good faith and in a commercially reasonable manner,

determine the levels of each Disrupted Contract *j* that will be used in the calculation of the Index.

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

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

The Index Levels on the Disrupted Index Rebalance Day and each disrupted Index Business Day not covered in the paragraphs above will be calculated in accordance with Section 2.

SECTION 4: WEIGHTING METHODOLOGY

The principle behind the weight allocation procedure (*Weighting Methodology*) is to go long the Components with Commodities with the most Backwardation and short the Components with Commodities with the least Backwardation with a neutral overall exposure to commodities (weights add up to zero).

This is achieved by constructing a concentrated, sector diversified, long exposure to the most backwardated Commodities and a concentrated, sector diversified, short exposure to the least backwardated (most contangoed) Commodities.

The weights for the selected subset of Commodities for long (short) exposure are initially assigned their corresponding Benchmark Weights and then proportionally scaled to add up to 100%, subject to liquidity/diversification Caps. A long exposure will thus be established to the most backwardated commodities and a short exposure to the most contangoed commodities.

To maximize roll yields, the long exposure is implemented through Macquarie Single Commodity Roll Yield Enhanced Indices (RYE Indices), which take exposure to the Contract with the most positive/least negative implied roll yield on the curve, and the short exposure is implemented through Macquarie Single Commodity Indices that take exposure to the front of the curve (F0 Indices).

The Weights Methodology is outlined in detail in the next sections as follows:

Section 4.1 describes the calculation of the Weights for each Component from Final Weights
Section 4.2 describes of the calculation of the Backwardation Signals, which are used to rank commodities by Backwardation;
Section 4.3 describes the selection process for the Commodities to which long/short exposure is allocated;
Section 4.4 describes the calculation of the Final Weights for the RYE Indices (long exposure);
Section 4.5 describes the calculation of the Final Weights for the F0 Indices (short exposure);

SECTION 4.1: COMPONENT WEIGHTS

The Weights of the Components (each RYE and F0 Macquarie Single Commodity Index) are derived from the Final Weights of the Components. Sections 4.4 and 4.5 describe the calculation of the Final Weights for each Component.

After the Final Weight of each Component in respect of each Commodity has been determined, the Weight (rounded to 12 decimal places) applied to each RYE Index and F0 Index (i.e. each Component) on Holdings Calculation Date R and for the purpose of the Holdings Calculation is calculated as:

$$W_i = \begin{cases} \dfrac{L_R}{\sum_k FW_{RYE,k,R}} \times FW_{RYE,C,R}, & if \ Component \ i \ is \ a \ RYE \ Index \ with \ underlying \ Commodity \ C \\ -1 \times \dfrac{L_R}{\sum_k FW_{F0,k,R}} \times FW_{F0,C,R}, & if \ Component \ i \ is \ a \ F0 \ Index \ with \ underlying \ Commodity \ C \end{cases}$$

Where

$$L_R = \min(\textstyle\sum_c FW_{F0,C,R} \ , \sum_c FW_{RYE,C,R})$$

L_R is the leverage of the allocation and ensures the weights add up to zero after the capping procedure, which can result in a set of Final Weights that add up to less than 100% if all Components are capped and there's a weight excess that can't be re-distributed.

For each Commodity, the Index takes a long position in its respective RYE Index if that Commodity is part of the Selected Backwardated Commodities Set, and takes a short position in its respective F0 Index if that Commodity is part of the Selected Contangoed Commodities Set.

SECTION 4.2: BACKWARDATION SIGNALS CALCULATION

The Backwardation Signal is a measure of the degree of Backwardation observed for each Commodity. The higher the Backwardation Signal, the more Backwardated that Commodity is. The lower the Backwardation Signal, the more Contangoed that Commodity is.

For each Commodity *i*, on a Holdings Calculation Date, *R*, the *Backwardation Signal $S_{i,R}$* corresponding to Commodity *i* is calculated according to the formula below:

$$S_{i,R} = \left(\frac{P^0_{i,R-1}}{P^{1Y}_{i,R-1}} \right)^{\frac{365}{ndays}} - 1$$

where $P^0_{i,R-1}$ is the Settlement Price for the Front Month Contract and $P^{1Y}_{i,R-1}$ is the Settlement Price of the One-Year Ahead Contract on the Index Business Day immediately preceding Holdings Calculation Date *R*, and *ndays* is the number of calendar days in between the Expiration of the One-Year Ahead Contract and the Expiration of the Front Month Contract.

SECTION 4.3: COMMODITY SELECTION

The Commodity selection process for the long and short exposures is outlined below in three steps. There is no overlap between the Commodities selected for long exposure and the Commodities selected for short exposure.

On each Holdings Calculation Date, *R*, rank the Commodities by the Backwardation Signal and:

Step 1:

 Long Exposure - Select one third of the Commodities from each sector with the *highest* Backwardation Signal: 3 from Agriculture, 1 from Livestock, 2 from Energy and 2 from Industrial Metals (*8 Selections*). It should be noted that, in the absence of Backwardated Commodities in any sector the Commodities selected will be those with the least negative Backwardation Signal.

Short Exposure - Select one third of the Commodities from each sector with the *lowest* Backwardation Signal: 3 from Agriculture, 1 from Livestock, 2 from Energy and 2 from Industrial Metals (*8 Selections*). It should be noted that, in the absence of Contangoed Commodities in any sector the Commodities selected will be those with the least positive Backwardation Signal.

Step 2:

Long Exposure - Select 2 Commodities with the *highest* Backwardation Signal from the remaining set (*2 Selections*). Again, in the absence of Backwardated Commodities the Commodities selected will be those with the least negative Backwardation Signal.

Short Exposure - Select 2 Commodities with the *lowest* Backwardation Signal from the remaining set (*2 Selections*). Again, in the absence of Contangoed Commodities the Commodities selected will be those with the least positive Backwardation Signal.

Step 3:

Long Exposure - Assess the remaining Commodities and select (*0, 1 or 2 Selections*):

- 0 Commodities if none of the remaining Commodities are Backwardated Commodities
- 1 Commodity (the Commodity with the highest Backwardation Signal) if only one is a Backwardated Commodity
- 2 Commodities (the Commodities with the highest Backwardation Signal) if two or more are Backwardated Commodities

for a total of 10 to 12 selected Commodities that will comprise the "***Selected Backwardated Commodities Set***".

Short Exposure - Assess the remaining Commodities and select (*0, 1 or 2 Selections*):

- 0 Commodities if none of the remaining Commodities are Contangoed Commodities
- 1 Commodity (the Commodity with the lowest Backwardation Signal) if only one is a Contangoed Commodity
- 2 Commodities (the Commodities with the lowest Backwardation Signal) if two or more are Contangoed Commodities

for a total of 10 to 12 selected Commodities that will comprise the "***Selected Contangoed Commodities Set***".

For example, on 31st of Jan 2018, the Index selected for the

a) **Long exposure**: a total of 11 Commodities, including two non Backwardated Agricultural Commodities (there was just one Backwardated Agricultural Commodity and the Index needs to select at least three to ensure sector diversification)
b) **Short Exposure**: a total of 12 Commodities, including 1 Backwardated Livestock Commodity and 2 Backwardated Energy Commodities (to ensure sector diversification, as all Livestock and Energy Commodities were Backwardated Commodities).

	Commodity	Backwardation Signal	Sector	Step 1: Select the most backwardated/contangoed commodities from each sector. 3 from Ag, 2 from En / IM & 1 from Lv (8 selections)		Step 2: Select the 2 most backwardated/contango commodities from the remaining set (2 selections)		Step 3: Assess remaining backwardated/contangoed commodities. (0, 1 or 2 selections)		Selected Backwardated Commodities	Selected Contangoed Commodities
				Long Exposure	Short Exposure	Long Exposure	Short Exposure	Long Exposure	Short Exposure		
Backwardated Commodities	CL	9%	En	CL						CL	
	XB	8%	En	XB						XB	
	LH	8%	Lv	LH						LH	
	CO	7%	En			CO				CO	
	LC	6%	Lv			LC				LC	
	QS	4%	En					QS		QS	
	NG	4%	En		NG						NG
	HO	4%	En		HO						HO
	CT	3%	Ag	CT						CT	
	LX	3%	IM	LX						LX	
	LL	1%	IM	LL						LL	
	FC	1%	Lv		FC						FC
Contangoed Commodities	SM	-0.5%	Ag	SM						SM	
	LA	-1%	IM								
	LN	-1%	IM								
	LP	-2%	IM		LP						LP
	S	-2%	Ag	S						S	
	BO	-2%	Ag						BO		BO
	HG	-3%	IM		HG						HG
	CC	-5%	Ag						CC		CC
	SB	-10%	Ag				SB				SB
	C	-10%	Ag				C				C
	KC	-10%	Ag		KC						KC
	KW	-14%	Ag		KW						KW
	W	-14%	Ag		W						W

SECTION 4.4: FINAL WEIGHTS CALCULATION FOR RYE INDICES

After the selection of the subset of Commodities for long exposure (the Selected Backwardated Commodities Set), the Final Weights used in the calculation of the Component Weights, are determined in three steps:

Step 1 (*Zero Weights*): A Final Weight of zero will be allocated to all RYE Indices where the underlying Commodity is not part of the Selected Backwardated Commodities Set.

Step 2 (*Non-Zero Weights*): For each Commodity in the Selected Backwardated Commodities Set, a non-zero Initial Weight equal to the Benchmark Weight for that Commodity is set. The Initial Weights are scaled proportionally to add up to 100%.

Step 3 (*Iterative Capping Procedure*): The set of Initial Weights are subject to an Iterative Capping Procedure in order to determine the set of Final Weights for the RYE Indices.

STEP 1: ZERO WEIGHTS

For each Commodity that is not part of the Selected Backwardated Commodities Set, the Final Weight is set to zero:

$$FW_{RYE,C,R} = 0, \forall C \notin Selected\ Backwardated\ Commodities$$

STEP 2: DETERMINATION OF NON-ZERO WEIGHTS

For each Commodity that is part of the Selected Backwardated Commodities Set, the Initial Weight is set to the Benchmark Weight for that Commodity scaled such that the sum of all Initial Weights adds up to 100%:

$$IW_{RYE,C,R} = BW_C \times \frac{1}{\sum_k BW_k}, \forall C \in Selected\ Backwardated\ Commodities$$

Where $\sum_k BW_k$ is then sum of the Benchmark Weights for all Commodities that are part of the Selected Backwardated Commodities Set.

STEP 3: ITERATIVE CAPPING PROCEDURE

The following weight caps are imposed (with reference to Table 1 under the definition of Components in the Definitions section):

i. The sum of the weights of the RYE Indices in respect of each Commodity belonging to a Group is capped. There are two Group Caps: a **high cap** of 35% applied to the Group with the highest initial weight (the Group with the highest sum of Initial Weights), and a **low cap** of 20% applied to all remaining Groups. If two or more Groups have the same highest initial weight, the high cap is applied to the group with the highest weighted backwardation signal (the Group with the highest sum product of Initial Weights and Backwardation Signals). In the unlikely scenario where two or more Groups have the same highest initial weight and the same highest weighted Backwardation Signal, of these Groups the high cap is applied to the Group that is first, according to the alphabetical order of the Group names in Table 1.

ii. The weight of the remaining Components (without an assigned Group in Table 1 (Group is None)) in respect of a particular Commodity is capped.

Step A: The Temporary Weight applied to the RYE Index in respect of each Commodity C that is part of the Selected Backwardated Commodities Set, on Holdings Calculation date R is assigned the Initial Weight and the Excess weight is equal to zero. The Commodities that are not part of the Selected Backwardated Commodities Set already have a Final Weight of zero set in Step 1 above and are not subject to the Iterative Capping Procedure.

$$TW_{RYE,C,R} = IW_{RYE,C,R}$$

$$Excess = 0$$

Step B: For each RYE Index belonging to the Group for which the high cap of 35% (the **_Max Group_**) applies (if the Group was not already capped):
If the sum of the Temporary Weights of all RYE Indices in respect of each Commodity belonging to the Max Group is greater than 35% then:

$$FW_{RYE,C,R} = \frac{TW_{RYE,C,R}}{\sum_{i \in G} TW_{RYE,i,R}} \times 35\%$$

$$Excess = Excess_{-1} + \sum_{i \in G} TW_{RYE,i,R} - 35\%$$

Where

$\sum_{i \in G} TW_{RYE,i,R}$ is the sum of the Temporary Weights of all RYE Indices in respect of each Commodity belonging to the Max Group.

$Excess_{-1}$ is the Excess determined in the immediately preceding step.

Where the Final Weight has been assigned as above all such RYE Indices whose respective Commodities are belonging to the Max Group will be regarded as being capped.

Step C: For each RYE Index belonging to any Group (current Group) other than the Max Group (if such Group was not already capped):
If the sum of the Temporary Weights of all RYE Indices in respect of each Commodity belonging to the current Group is greater than 20% then:

$$FW_{RYE,C,R} = \frac{TW_{RYE,C,R}}{\sum_{i \in G} TW_{RYE,i,R}} \times 20\%$$

$$Excess = Excess_{-1} + \sum_{i \in G} TW_{RYE,i,R} - 20\%$$

Where

$\sum_{i \in G} TW_{RYE,i,R}$ is the sum of the Temporary Weights of all RYE Indices in respect of each Commodity belonging to the current Group.

$Excess_{-1}$ is the Excess determined in the immediately preceding step.

Where the Final Weight has been assigned as above all such RYE Indices whose respective Commodities are belonging to the current Group will be regarded as being capped.

Step D: For each RYE Index in respect of each Commodity that is not part of any Group and has not been already capped (Group is None in Table 1):

If the Temporary Weight of the RYE Index with respect to such Commodity is greater than the corresponding Commodity Cap (with reference to the Table 1 under the definition of Components in the Definitions section):

$$FW_{RYE,C,R} = Cap_c$$

$$Excess = Excess_{-1} + TW_{RYE,C,R} - Cap_c$$

Where

Cap_c is the weight Cap in respect of Commodity C as specified in the Table 1.

$TW_{RYE,C,R}$ is the Temporary Weight of the RYE Index in respect of Commodity C on Holdings Calculation Date R.

Excess$_{-1}$ is the Excess determined in the immediately preceding step.

At the end of this step, if the weight of the RYE Index in respect of any Commodity is equal to the corresponding Commodity Cap, then that RYE Index will be regarded as being capped for the purpose of the remaining calculations.

Step F: Distribute the final Excess weight in proportion to all remaining uncapped, RYE Indices:

$$TW_{RYE,C,R} = TW_{RYE,C,R} \times \left(1 + \frac{Excess}{\sum_{i \in U} TW_{RYE,i,R}}\right)$$

$$Excess = 0$$

Where $\sum_{i \in U} TW_{RYE,i,R}$ is the sum of the weights of all RYE Indices in respect of the uncapped Commodities.

Steps B to F are repeated until the sum of Temporary Weights of the RYE Indices in respect of each uncapped Group of Commodities or the Temporary Weights of the RYE Indices in respect of each uncapped Commodity satisfy the Caps specified in Table 1 under the definition of Components in the Definitions section, in which case:

$$FW_{RYE,C,R} = TW_{RYE,C,R} \text{ for any uncapped Commodity}$$

SECTION 4.5: FINAL WEIGHTS CALCULATION FOR F0 INDICES

After the selection of the subset of Commodities for short exposure (the Selected Contangoed Commodities Set), the Final Weights used in the calculation of the Component Weights, are determined in three steps:

Step 1 (*Zero Weights*): A Final Weight of zero will be allocated to all F0 Indices where the underlying Commodity is not part of the Selected Contangoed Commodities Set.

Step 2 (*Non-Zero Weights*): For each Commodity in the Selected Contangoed Commodities Set, a non-zero Initial Weight equal to the Benchmark Weight for that Commodity is set. The Initial Weights are scaled proportionally to add up to 100%.

Step 3 (*Iterative Capping Procedure*): The set of Initial Weights are subject to an Iterative Capping Procedure in order to determine the set of Final Weights for the F0 Indices.

For each Commodity that is not part of the Selected Contangoed Commodities Set, the Final Weight is set to zero:

$$FW_{F0,C,R} = 0, \forall C \notin Selected\ Backwardated\ Commodities$$

For each Commodity that is part of the Selected Contangoed Commodities Set, the Initial Weight is set to the Benchmark Weight for that Commodity scaled such that the sum of all Initial Weights adds up to 100%:

$$IW_{F0,C,R} = BW_C \times \frac{1}{\sum_k BW_k}, \forall C \in Selected\ Backwardated\ Commodities$$

Where $\sum_k BW_k$ is then sum of the Benchmark Weights for all Commodities that are part of the Selected Contangoed Commodities Set.

The following weight caps are imposed (with reference to Table 1 under the definition of Components in the Definitions section):

 iii. The sum of the weights of the F0 Indices in respect of each Commodity belonging to a Group is capped. There are two Group Caps: a **high cap** of 35% applied to the Group with the highest initial weight (the Group with the highest sum of Initial Weights), and a **low cap** of 20% applied to all remaining Groups. If two or more Groups have the same highest initial weight, the high cap is applied to the group with the lowest weighted backwardation signal (the Group with the lowest sum product of Initial Weights and Backwardation Signals). In the unlikely scenario where two or more Groups have the same highest initial weight and the same lowest weighted Backwardation Signal, of these Groups the high cap is applied to the Group that is first, according to the alphabetical order of the Group names in Table 1.

 iv. The weight of the remaining Components (without an assigned Group in Table 1 (Group is None)) in respect of a particular Commodity is capped.

Step A: The Temporary Weight applied to the F0 Index in respect of each Commodity C that is part of the Selected Contangoed Commodities Set, on Holdings Calculation date R is assigned the Initial Weight and the Excess weight is equal to zero. The Commodities that are not part of the Selected Contangoed Commodities Set already have a Final Weight of zero set in Step 1 above and are not subject to the Iterative Capping Procedure.

$$TW_{F0,C,R} = IW_{F0,C,R}$$

$$Excess = 0$$

Step B: For each F0 Index belonging to the Group for which the high cap of 35% (the **_Max Group_**) applies (if the Group was not already capped):
If the sum of the Temporary Weights of all F0 Indices in respect of each Commodity belonging to the Max Group is greater than 35% then:

$$FW_{F0,C,R} = \frac{TW_{F0,C,R}}{\sum_{i \in G} TW_{F0,i,R}} \times 35\%$$

$$Excess = Excess_{-1} + \sum_{i \in G} TW_{F0,i,R} - 35\%$$

Where

$\sum_{i \in G} TW_{F0,i,R}$ is the sum of the Temporary Weights of all F0 Indices in respect of each Commodity belonging to the Max Group.

$Excess_{-1}$ is the Excess determined in the immediately preceding step.

Where the Final Weight has been assigned as above all such F0 Indices whose respective Commodities are belonging to the Max Group will be regarded as being capped.

Step C: For each F0 Index belonging to any Group (current Group) other than the Max Group (if such Group was not already capped):
If the sum of the Temporary Weights of all F0 Indices in respect of each Commodity belonging to the current Group is greater than 20% then:

$$FW_{F0,C,R} = \frac{TW_{F0,C,R}}{\sum_{i \in G} TW_{F0,i,R}} \times 20\%$$

$$Excess = Excess_{-1} + \sum_{i \in G} TW_{F0,i,R} - 20\%$$

Where

$\sum_{i \in G} TW_{F0,i,R}$ is the sum of the Temporary Weights of all F0 Indices in respect of each Commodity belonging to the current Group.

$Excess_{-1}$ is the Excess determined in the immediately preceding step.

Where the Final Weight has been assigned as above all such F0 Indices whose respective Commodities are belonging to the current Group will be regarded as being capped.

Step D: For each F0 Index in respect of each Commodity that is not part of any Group and has not been already capped (Group is None in Table 1):

If the Temporary Weight of the F0 Index with respect to such Commodity is greater than the corresponding Commodity Cap (with reference to the Table 1 under the definition of Components in the Definitions section):

$$FW_{F0,C,R} = Cap_c$$

$$Excess = Excess_{-1} + TW_{F0,C,R} - Cap_c$$

Where

Cap_c is the weight Cap in respect of Commodity C as specified in the Table 1.

$TW_{F0,C,R}$ is the Temporary Weight of the F0 Index in respect of Commodity C on Holdings Calculation Date R.

Excess$_{-1}$ is the Excess determined in the immediately preceding step.

At the end of this step, if the weight of the F0 Index in respect of any Commodity is equal to the corresponding Commodity Cap, then that F0 Index will be regarded as being capped for the purpose of the remaining calculations.

Step F: Distribute the final Excess weight in proportion to all remaining uncapped, F0 Indices:

$$TW_{F0,C,R} = TW_{F0,C,R} \times \left(1 + \frac{Excess}{\sum_{i \in U} TW_{F0,i,R}}\right)$$

$$Excess = 0$$

Where $\sum_{i \in U} TW_{F0,i,R}$ is the sum of the weights of all F0 Indices in respect of the uncapped Commodities.

Steps B to F are repeated until the sum of Temporary Weights of the F0 Indices in respect of each uncapped Group of Commodities or the Temporary Weights of the F0 Indices in respect of each uncapped Commodity satisfy the Caps specified in Table 1 under the definition of Components in the Definitions section, in which case:

$$FW_{F0,C,R} = TW_{F0,C,R} \text{ for any uncapped Commodity}$$

CONTACTS

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