# Macquarie Capped Momentum Beta Indices

Index Manual December 2017

# NOTES AND DISCLAIMERS

## BASIS OF PROVISION

This Index Manual sets out the rules for the Macquarie Capped Momentum Beta Indices (each, an *Index*) and reflects the methodology for determining the composition and calculation of the composition and calculation of each Index (the *Methodology*). The Methodology and each Index derived from this Methodology are the exclusive property of Macquarie Bank Limited (the *Index Sponsor*). They have 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, summarize, quote from or otherwise publicly refer to the contents of the Methodology or use it as the basis of any financial instrument.

## DATE OF INDEX MANUAL AND CHANGES TO THE INDICES

The Index Manual contains information as of the date appearing on its cover, and such information may change from time to time. No assurance can be given that the Methodology reflects information subsequent to this date. The Index Sponsor may, however, supplement, amend or withdraw the Methodology at any time if it determines that an Index is no longer calculable under the existing Methodology. The Index Sponsor may also determine that a change to the Methodology is required or desirable to address an error, ambiguity or omission. Such changes may include changes to eligibility requirements or construction as well as changes to the daily Index calculations. If a supplement or amendment is required and such supplement or amendment materially affects the Index Levels of an existing Index, the Index Sponsor will publish such changes to the Methodology, together with the rationale for such changes, 30 days prior to implementation. However if prior publication of the changes is not practicable, the changes and rationale will be published as soon as is reasonably practicable.

If you have been granted written consent by the Index Sponsor to reference an Index in any contract or financial instrument, you should include in such contract or financial instruments robust fallback provisions to deal with cessation or material modification of the Index.

## ADDITIONAL INDICES

The Index Sponsor may, at any time, commence calculation and publication of new Indices pursuant to the Methodology. In such circumstances the Index Sponsor will publish a revised version of the Methodology, revised only to augment Appendix A with the new Index Specifications relating to the new Indices.

#### NOT RESEARCH OR AN OFFER

This document is not a personal recommendation as defined by the Financial Conduct Authority and you should consider whether you can rely upon any opinion or statement contained in this document without seeking further advice tailored for your own circumstances. It is also not investment research, and has not been prepared in accordance with legal requirements designed to promote the independence of such. Any opinions expressed herein may differ from the opinions expressed in other departments including the

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Each Index and any financial instruments based on an Index may not be suitable for all investors and any investor must make an independent assessment of the appropriateness of any transaction in light of their own objectives and circumstances including the potential risks and benefits of entering into such a transaction. If you are in any doubt about any of the contents of this document, you should obtain independent professional advice.

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Hypothetical back-tested historical values of an 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.

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determination that a Market Disruption Event has occurred or has not occurred in relation to a Contract, (ii) the timing relating to the determination that a Market Disruption Event has occurred in relation to a Contract, or (iii) any actions taken or not taken by the Index Calculation Agent as a result of such determination that an Market Disruption Event has occurred.

#### NOTICES

The Indices are based on Contracts, as described in the Methodology. The Index Sponsor and/or its affiliates also actively trade Contracts and options on 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 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 an 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 an 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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# CONTENTS

Notes and Disclaimers	2
Basis Of Provision	2
Date Of Index Manual And Changes To The Indices	2
Additional Indices	2
Not Research Or An Offer	2
Historical Values Of The Indices	3
Disclaimer Of Liability	3
Notices	4
Introduction	7
General notes on the indices and the methodology	7
Document Structure	8
Index governance	9
Index sponsor and index calculation agent	10
The Index Sponsor	10
The Index Calculation Agent	10
Relationship of the Index Sponsor and the Index Calculation Agent	10
Definitions	11
Index Calculation	15
Section 1: Roll Weights Calculation	15
Section 2: Holdings Calculation	16
Target Holdings calculation on a Holdings Calculation Date	16
Daily Holdings calculation	18
Section 3: Daily Index Calculation	18
Section 4: Market Disruption Events and Material Changes to the Futures Underlying an Inde	x21
Roll Weight calculation under Market Disruption Events	21
Material Changes to the Futures Underlying an Index	22
Section 5: Allocation of Weights to Commodities	22
Section 5.1: Signals Calculation	23
Section 5.2: Expected Returns and Covariances	24
Section 5.3: Reference Weights Calculation	24
Section 5.4: Weights Calculations	25
Appendix – Index Specifications	26
REFERENCE INDEX - DISCLAIMERS	32

# INTRODUCTION

Each Index is designed as a commodity index for long exposure to the commodity markets, tracking a publicly available commodity reference index (*Reference Index*), for example, the Bloomberg Commodity Index, with the aim of outperforming by overweighting and underweighting the allocation of Commodities relative to the Reference Index.

Each Index represents a replicable index 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, each Index is constituted by, and reflects the price performance of, a basket of a broad spectrum of exchange traded futures contracts relating to a physical commodity. In order to ensure the continuity of each Index, when the futures contract relating to a Commodity in an Index approaches expiration, it will be replaced by an identical contract with a later expiration (the exposure to the Commodity will 'roll' from one Contract into the next). The exposure to each Commodity underlying an Index thus tracks a sequence of futures contracts relating to that Commodity (the universe of tradable calendar futures contracts on a Commodity, known as the 'futures curve').

The investment strategy of each Index is commonly referred to as "commodity momentum". Momentum is the market phenomenon where an asset that has performed well relative to its peers will on average tend to continue outperforming, and assets that have performed relatively poorly tend to continue to underperform. The investment strategy for each Index aims to improve on the performance of the Reference Index, subject to a Tracking Error Threshold, by overweighting the Commodities with the highest Momentum signal and underweighting the Commodities with the lowest Momentum signal (as further describe in Section 5.1 below).

Certain Commodities are considered to be highly correlated with each other, and therefore are not considered to provide a strong diversification benefit to an Index. Therefore, to ensure each Index is diversified, despite strong Momentum, exposure to similar Commodities may be capped. These correlated groups of Commodities are defined as "Groups".

## GENERAL NOTES ON THE INDICES AND THE METHODOLOGY

The Indices are designed to be replicable and readily accessible to market participants and are calculated daily in an excess return format.

The Indices are calculated and maintained by the Index Calculation Agent and supervised by the Index Sponsor and Oversight Committee, as described below. Once an Index has been created, the Contract that underlies it and the Static Contract Roll Schedule, which determines when the Index rolls from one Contract expiration into another, will be fixed and will not be amended going forward. All determinations with regard to the Indices are made following the rules set out in this document, without discretion by the Index Sponsor or Index Calculation Agent.

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

## DOCUMENT STRUCTURE

This document contains all the information necessary to calculate the Macquarie Capped Momentum Beta Indices. The Index Specifications serve as inputs to the index calculation section of the document, which describes the process of calculating each excess return and total return index in respect of each Index Business Day. Thus, the index calculation section should be read in conjunction with the appropriate Index Specification for the purposes of replicating a particular Index.

The index methodology, composition and features of a Reference Index can be found in the latest handbook or methodology available on the website listed in the relevant Index Specification.

# INDEX GOVERNANCE

The Index Sponsor has established an independent oversight committee (the *Oversight Committee*) to review and oversee management of the Indices 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 each Index and the materiality of existing or potential conflicts of interest together with overseeing the daily management and operations of the Indices.

The Oversight Committee has approved the Methodology and this Index Manual and will be available on an ad hoc basis for the approval of any changes to the Methodology, any contemplated cancellation of an Index and the resolution of any issues which arise in relation to an 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 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

Reference Index, is as specified in the relevant Index Specification.

**Reference Multiplier**, is the commodity index multiplier for each Reference Index as specified in the latest available manual or handbook of the Reference Index.

**Reference Single Commodity Indices** for each Commodity as specified in the relevant Index Specification.

**Reference Weight**, is the weight allocation of each Commodity in the Reference Index.

**Commodities**, are the underlying commodities of the Reference Index, as specified in the relevant Index Specification or as specified in the latest available manual or handbook of the Reference Index. Any commodity included (or removed) from the Reference Index is automatically included (or removed) from the relevant Index. The total number of commodities is denoted by n.

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

The **Contract Rolling In** of a Commodity on an Index Business Day is the Contract specified in the Static Contract Schedule Table of the Index Specification for the calendar month immediately following — with January following December — the calendar month to which that particular Index Business Day belongs. The Contract Rolling In represents the Contract to which the Index is exposed during and subsequent to the Roll Period in which the Index rolls its exposure from the Contract Rolling Out to the Contract Rolling In.

The **Contract Rolling Out** of a Commodity on an Index Business Day is the Contract specified in the Static Contract Schedule Table of the Index Specification for the calendar month to which that particular Index Business Day belongs. The Contract Rolling Out represents the Contract to which the Index is exposed prior to and during the Roll Period in which the Index rolls its exposure from the Contract Rolling Out to the Contract Rolling In.

**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.

**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.

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 succeeding the current Index Business Day for which a Settlement Price can be obtained.

**Groups**, are Commodities bundled together based on their similarity and are used for weight capping purposes in Section 5.4 (*Weights Calculation*).

Groups	Commodities
Petroleum	WTI Crude, Brent Crude, Gasoil, Heating Oil,
Petroleum	RBOB Gasoline
Wheat	Wheat (Chicago), Wheat (Kansas)
Soybeans	Soybeans, Soybean Meal
Cattle	Live Cattle, Feeder Cattle
Natural Gas	Natural Gas
Lean Hogs	Lean Hogs
Corn	Corn
Soybean Oil	Soybean Oil
Aluminium	Aluminium
High Grade Copper	High Grade Copper
Zinc	Zinc
Nickel	Nickel
Lead	Lead
Tin	Tin
Gold	Gold
Silver	Silver
Platinum	Platinum
Sugar	Sugar
Cotton	Cotton
Coffee	Coffee
Сосоа	Сосоа
Orange Juice	Orange Juice

**Holding**, in respect of a Commodity 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 Commodity is determined in order to calculate the daily Index Level and represents the proportionate effect on the Index Level of a change in the price of the Underlying Contracts referencing that Commodity.

**Holdings Calculation Date**, is the Index Business Day on which the Target Holdings are periodically calculated in order to rebalance the Holding of each Commodity to the specified Weights, as specified in the relevant Index Specification.

Index Business Days, are the days in the Index Calendar, as specified in the relevant Index Specification.

Index Calendar, is the set of trading days for the Index and is specified in the relevant Index Specification.

**Initial Index Level**, is the value of the Index on the Index Start Date and is specified in the relevant Index Specification.

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

Index Start Date, is specified in the relevant Index Specification.

**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 the name for each Index and is specified in the relevant Index Specification.

**Momentum** is the market phenomenon where an asset that has outperformed in the recent past will tend to keep outperforming its peers in the future.

**Roll Start Date** is the Index Business Day on which the Index exposure periodically starts to move from the Contract Rolling Out into the Contract Rolling In for each Commodity. The Roll Start Date is specified in the relevant Index Specification.

**Roll Length** is the number of the Index Business Days required to periodically move the exposure from the Contract Rolling Out into the Contract Rolling In for each Commodity. The Roll Length value is specified in the relevant Index Specification.

**Roll Period** is the set of Index Business Days consisting of the period starting and including Roll Start Date and lasting for the number of Index Business Days established by the Roll Length.

**Roll Fraction** means the fraction of exposure rolled out of the Contract Rolling Out and into the Contract Rolling In on each Index Business Day of the Roll Period. The Roll Fraction is equal to the inverse of Roll Length.

The **Roll Weights** allocate exposure between the Contract Rolling Out and the Contract Rolling In through a calendar month for each of the Commodities.

**Settlement Prices**, are the prices for a Contract, 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 the particular Contract will be the most recent available price on the most recent business day of the relevant exchange or Trading Facility.

**Signal**, is a numeric value assigned to each Commodity which is directly proportional to the level of Momentum for that Commodity and is described in the Weighting Methodology.

**Target Holdings**, are a set of multipliers, derived from the Weights, which are utilized to rebalance the allocation of Commodities of the Index throughout the Roll Period. The calculation of Target Holdings is described in Section 2 (*Holdings Calculation*) of the Index Calculation section below.

**Top**, means the number of Commodities selected for an Index with the highest Signal values, as specified in the relevant Index Specification.

**Trading Facility**, means each regulated futures exchange, facility or platform on or through which the Contracts underlying an Index are traded.

**Treasury Bill Rate**, is the 91-day discount rate for U.S. Treasury Bills, as reported by the U.S. Department of the Treasury's Treasury Direct service (<u>https://treasurydirect.gov/TA\_WS/securities/auctioned</u>).

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.

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

**Weighting Methodology**, is the weight allocation procedure detailed in Section 5 (*Allocation of Weights to Commodities*) of the Index Calculation section.

# INDEX CALCULATION

On a daily basis each Index replicates the returns obtained by holding a basket of Contracts, the Holdings of which are determined according to Section 2 (*Holdings Calculation*) of this Index Calculation section. The futures contract(s) associated with each Index will change through time, with futures contracts being added and removed according to a calendar month contract schedule that is part of the set of parameters specified in its Index Specifications (Appendix A), as described in more detail in Section 1 (*Roll Weights Calculation*) below.

The following sections detail how the Index Calculation Agent will calculate the daily Index Levels of each Index based on the inputs set out in the relevant Index Specification.

## SECTION 1: ROLL WEIGHTS CALCULATION

Futures contracts have fixed expiry dates, after which trading comes to an end. In order to accurately reflect a financial investment in a physical commodity, futures contracts are removed from the basket which is tracked by the Index prior to their expiry in a process called "rolling" the futures contracts.

Contracts are rolled on the close of each Index Business Day and over a series of Index Business Days. Rolling entails adjusting the Contracts the Index references to reduce exposure to the Contract Rolling Out and increase exposure to the Contract Rolling In. Thus, during the Roll Period the Index will reference more than one Contract in respect of a Commodity, with the proportion of exposure to each Contract changing on the close of each Index Business Day. This is achieved by applying a "roll weight" to each Contract which, over the duration of the Roll Period, will change to reflect the changing composition of Contracts associated with each Index. These roll weights are then used to calculate the level of the Index on the following Index Business Day.

The Roll Weights allocate exposure between the Contract Rolling Out and the Contract Rolling In throughout a calendar month. They also facilitate the rebalancing of the Index during the Roll Period and are calculated daily for each Commodity *i* according to the following rule:

- (i) The Roll Weight of Commodity *i* on Index Business Day *t*, *RW*<sub>*i*,*t*</sub>, is equal to one (1) if the Index Business Day, *t*, precedes the Roll Period for the calendar month to which the Index Business Day *t* belongs.
- (ii) The Roll Weight of Commodity *i* on Index Business Day *t*,  $RW_{i,t}$ , will decrease by the amount defined by the Roll Fraction on each day of the Roll Period. That is,  $RW_{i,t} = RW_{i,t-1} Roll$  Fraction for each Index Business Day *t* belonging to the Roll Period until  $RW_{i,t}$  is equal to zero at the end of the Roll Period.
- (iii) The Roll Weight of Commodity *i* on Index Business Day *t*, *RW<sub>i,t</sub>*, is set equal to zero (0) for all Index Business Days succeeding the Roll Period in the calendar month to which the Index Business Day *t* belongs.
- (iv) If a Market Disruption Event occurs, then each Contract will have its roll postponed as described in Section 4 (*Market Disruption Events and Material Changes to the Futures Underlying an Index*).

For example, the Macquarie Capped Momentum F3 5% Index has a Roll Period that starts on the fifth (5<sup>th</sup>) Index Business Day of each month and has a Roll Length of five (5) Index Business Days.

The Roll Weights calculations for January 2014 are then calculated as follows:

- In respect of January 2 to January 7 (inclusive), i.e. from the first (1<sup>st</sup>) to the fourth (4<sup>th</sup>) Index Business Day in January, the Roll Weight is equal to one.
- In respect of January 8, which is the first (1<sup>st</sup>) Index Business Day in the January Roll Period, the Roll Weight is equal to 0.8
- In respect of January 9, which is the second (2<sup>nd</sup>) Index Business Day in the January Roll Period, the roll weight is equal to 0.6
- In respect of January 10, which is the third (3<sup>rd</sup>) Index Business Day in the January Roll Period, the Roll Weight is equal to 0.4
- In respect of January 13, which is the fourth (4<sup>th</sup>) Index Business Day in the January Roll Period, the Roll Weight is equal to 0.2
- In respect of January 14, which is the fifth (5<sup>th</sup>) Index Business Day in the Roll Period, the Roll Weight is equal to 0
- In respect of all other Index Business Days in January, the roll weight is equal to 0

Established market practice is that indices based on futures contracts are rolled over multiple days, generally starting on the fifth (5<sup>th</sup>) Index Business Day of each month and continuing over five (5) days.

# SECTION 2: HOLDINGS CALCULATION

On any Index Business Day, t, each Commodity 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 the Underlying Contracts referencing that Commodity changes. In this section, we outline the Holdings,  $\{H_{1,t}, ..., H_{n,t}\}$ , calculations on any Index Business Day, t.

During the Roll Period, the Holding of each Commodity *i*, is rebalanced to the set of Target Holdings calculated on the most recent Holdings Calculation Date. Throughout the Roll Period, the Roll Weight is used to split the proportion of the change in Index Level associated to the Holding and the proportion of the Index Level associated to the Target Holding, as described in Section 3 (*Daily Index Calculation*). The Target Holdings are calculated in accordance with the Weighting Methodology set out in Section 5 (*Allocation of Weights to Commodities*) 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 obtained on that Holdings Calculation Date, *and* the set of Settlement Prices of the Contract Rolling Out on the same date.

On any Holdings Calculation Date, *R*, let the Weight of each Commodity *i* be denoted by  $W_{i,R}$  so that  $\{W_{1,R}, ..., W_{n,R}\}$  are the Weights of the *n* Commodities in the Index as determined by the Weighting Methodology of the Index in respect of that Holding Calculations Date, *R*. Analogously, let  $\{CRO_{1,R}, ..., CRO_{n,R}\}$  be the set of Settlement Prices of the Contract Rolling Out on that Holdings Calculation Date, *R*. The index Target Holdings,  $\{TH_{1,R}, ..., TH_{n,R}\}$ , for each of the *n* Commodities in the Index are calculated (rounded to eight decimal points) according to the formula below:

$$TH_{i,R} = \left(\sum_{j=1}^{n} H_{j,R} \times CRO_{j,R}\right) \times \frac{W_{i,R}}{CRO_{i,R}} \text{ for every Commodity } i = 1, \dots, n$$

where  $\{H_{1,R}, ..., H_{n,R}\}$  is the set of Holdings prevalent on that Holdings Calculation Date, R.

On the first Holdings Calculation Date, *R*, set of Target Holdings is calculated (rounded to eight decimal points) according to the formula below:

$$TH_{i,R} = I_0 \times \frac{W_{i,R}}{CRO_{i,R}} \text{ for every Commodity } i = 1, \dots, n$$

where  $I_0$  is the Initial Index Level.

For example, for the Macquarie Capped Momentum F3 5% Index (MQCP025E), we calculate the following Target Holdings on the 6 of December 2016 (December's Holdings Calculation Date):

Commodity	$CRO_{i,R}$	$H_{j,R}$	$W_{i,R}$	$TH_{i,R}$
Soybean Oil	38.2	4.159358	0.085219	4.633174
Corn	367.25	0	0	0
WTI Crude	54.14	0	0.124286	4.767676
Cotton	71.76	1.222293	0	0
Gold	1172.9	0.028185	0	0
High Grade Copper	268.65	0	0.022358	0.172844
Heating Oil	167.51	1.686086	0	0
Coffee	144.3	0.57194	0	0
Wheat (Kansas)	416.75	0	0	0
Live Cattle	111.025	0	0	0
Brent Crude	55.64	0	0	0
Lean Hogs	63.625	0	0	0
Aluminum	1711.5	0.157431	0.125018	0.151704
Nickel	11644	0.006389	0.07474	0.013331
Zinc	2805.75	0.058661	0.053044	0.039263
Natural Gas	3.36	0	0.177467	109.6938

RBOB Gasoline	178.31	0.430363	0	0
Soybean	1064.75	0.334216	0.042881	0.083641
Sugar	18.98	12.34539	0.094947	10.3893
Silver	16.869	15.22798	0.119062	14.65843
Soybean Meal	326.7	0	0.080978	0.514782
Wheat (Chicago)	419.25	0	0	0

#### 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 last Index Business Day of the Roll Period (including the potential extension imposed by Market Disruption Events as outlined in Section 4 (*Market Disruption Events and Material Changes to the Futures Underlying an Index*)), the Holdings  $\{H_{1,t}, ..., H_{n,t}\}$  are set equal to the Target Holdings  $\{TH_{1,R}, ..., TH_{n,R}\}$  calculated on the most recent Holdings Calculation Date, *R*, preceding the Index Business Day *t*.
- (ii) On any other Index Business Day, t, the Holding of each Commodity i on that day,  $H_{i,t}$ , is set to be equal to the Holding of that particular Commodity on the previous Index Business Day,  $H_{i,t-1}$ .

## SECTION 3: 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 an 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 **Index Daily Return**,  $IDR_t$ , according to the formula:

 $I_t = I_{t-1} \times (1 + IDR_t).$ 

The Index Daily Return, *IDR*<sub>t</sub>, is determined according to the formula below:

$$IDR_{t} = \frac{\sum_{i=1}^{n} RW_{i,t-1} \times H_{i,t-1} \times CRO_{i,t} + (1 - RW_{i,t-1}) \times TH_{i,t-1} \times CRI_{i,t}}{\sum_{i=1}^{n} RW_{i,t-1} \times H_{i,t-1} \times CRO_{i,t-1} + (1 - RW_{i,t-1}) \times TH_{i,t-1} \times CRI_{i,t-1}} - 1$$

where:

*RW*<sub>*i*,*t*-1</sub> is the Roll Weight of Commodity *i* on the Index Business Day *t*-1 immediately preceding the Index Business Day *t*;

*H*<sub>*i,t-1*</sub> is the Holding of Commodity *i* on the Index Business Day *t-1* immediately preceding the Index Business Day *t*;

 $TH_{i,t-1}$  is the Target Holding of Commodity / on the Index Business Day t-1 immediately preceding the Index Business Day t;

*CRO*<sub>*i*,*t*</sub>, and *CRI*<sub>*i*,*t*</sub> are the Settlement Prices of the the Contract Rolling Out and the Contract Rolling In of Commodity *i* on the Index Business Day *t*, respectively; and

*CRO*<sub>*i*,*t*-1</sub> and *CRI*<sub>*i*,*t*-1</sub> are the Settlement Prices of the the Contract Rolling Out and the Contract Rolling In of Commodity *i* on the Index Business Day *t*-1 immediately preceding the Index Business Day *t*, respectively.

The Index Start Date as well as the Excess Return Index Level, which is the value of the Index Start Date, are specified in the Index Specification.

For example, on 8 December 2016, the Index Level for the Macquarie Capped Momentum F3 5% Index (MQCP025E) has an Index Daily Return of  $IDR_t = -0.712214654707366\%$ :

Commodity	$RW_{i,t-1}$	$H_{i,t-1}$	$CRO_{i,t-1}$	$CRI_{i,t-1}$	CRO <sub>i,t</sub>	CRI <sub>i,t</sub>	$TH_{i,t-1}$
Soybean Oil	0.8	4.159358	38.33	38.33	37.69	37.69	4.633174
Corn	0.8	0	364.75	364.75	360.25	360.25	0
WTI Crude	0.8	0	53.25	53.25	53.96	53.96	4.767676
Cotton	0.8	1.222293	71.42	71.42	71.69	71.69	0
Gold	0.8	0.028185	1180.4	1183.2	1175.4	1178.3	0
High Grade Copper	0.8	0	265.15	265.15	263.3	263.3	0.172844
Heating Oil	0.8	1.686086	165.34	165.34	165.57	165.57	0
Coffee	0.8	0.57194	144.05	144.05	143.75	143.75	0
Wheat (Kansas)	0.8	0	411.75	411.75	416.25	416.25	0
Live Cattle	0.8	0	110.8	102.15	110.425	101.5	0
Brent Crude	0.8	0	54.83	55.43	55.55	56.07	0
Lean Hogs	0.8	0	65.775	76.2	66.35	76.4	0
Aluminum	0.8	0.157431	1708.75	1708.75	1725.25	1725.25	0.151704
Nickel	0.8	0.006389	11443.5	11443.5	11138	11138	0.013331
Zinc	0.8	0.058661	2746.5	2746.5	2694.5	2694.5	0.039263

Natural Gas	0.8	0	3.339	3.339	3.39	3.39	109.6938
RBOB Gasoline	0.8	0.430363	175.75	175.75	175.54	175.54	0
Soybean	0.8	0.334216	1066.75	1066.75	1045.25	1045.25	0.083641
Sugar	0.8	12.34539	19.12	19.12	18.96	18.96	10.3893
Silver	0.8	15.22798	17.335	17.335	17.155	17.155	14.65843
Soybean Meal	0.8	0	326.6	326.6	320.2	320.2	0.514782
Wheat (Chicago)	0.8	0	412.5	412.5	418.75	418.75	0

and an Index Level of  $I_t = 302.9795335 * (1 - 0.00712214654707366) = 300.8216688$ .

# SECTION 4: MARKET DISRUPTION EVENTS AND MATERIAL CHANGES TO THE FUTURES UNDERLYING AN INDEX

Each Index is ultimately comprised of a set of futures on physical commodities. On any given Index Business Day, disruptions can occur that prevent these Contracts from being traded. When this happens, it is necessary for the calculations of the affected 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 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.

During a Roll Period, this is generally achieved by delaying any changes to the composition of each affected Index. On any other Index Business Day, given that the replication of an Index does not require trading of Contracts on such days, in the event that a price is not available for a Contract, a price will be appropriately substituted in order for the calculations in respect of a particular Index Business Day to take place.

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

- a material limitation, suspension, or disruption of trading in one (or more) of the Contracts underlying the Index which results in a failure by the relevant Trading Facility to report or announce a settlement price for such Contract on the day on which such event occurs or any succeeding day on which it continues to occur;
- the settlement price published by the relevant Trading Facility for one (or more) Contract underlying the Index 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;
- (iii) any other event, if the Index Calculation Agent reasonably determines that the event materially interferes with the ability of market participants to hedge the Index.

## ROLL WEIGHT CALCULATION UNDER MARKET DISRUPTION EVENTS

When a Market Disruption Event occurs during a Roll Period, the approach taken by the Index Calculation Agent is to delay changes to the Index composition until the Market Disruption Event affecting the Index has concluded, provided that in the event that a Market Disruption Event continues for multiple days, the Index Calculation Agent will make a good faith determination in respect of the market price to be attributed to the affected Contracts.

If, on an Index Business Day during the Roll Period, *t*, a Market Disruption Event occurs, then the Commodity with an underlying Contract affected by the Market Disruption Event will have its roll postponed according to the following methodology:

(i) For each Commodity *i* not affected by the Market Disruption Event, the Roll Weight, *RW*<sub>*i*,*t*</sub> is defined in the usual course, as in Section 1 (*Roll Weights Calculation*).

- (ii) For each Commodity *i* affected by the Market Disruption Event, the Roll Weight,  $RW_{i,t}$ , will be set equal its previous value, i.e.,  $RW_{i,t} = RW_{i,t-1}$ .
- (iii) If the Roll Period falls in January, the Roll Weight on subsequent Index Business Days not affected by a Market Disruption Event will be determined without taking into account the Index Business Days on which a Market Disruption Event occurred or was continuing.
- (iv) If the Roll Period does not fall in January, the postponed portion of the roll in (ii) above will roll on the first Index Business Day not affected by Market Disruption Events.

In the event that the Roll Period ends without the Roll Weight being fully redistributed into the Contract Rolling In, then the Roll Period is extended until there is no Market Disruption Event. If the Roll Period is extended five (5) days, then the Index Calculation Agent will determine the Settlement Price in order to effect that portion of the roll. It is anticipated, however, that the Index Calculation Agent will only need to make such determination under extraordinary circumstances.

For example, on 10 March 2014, the price for the Lean Hogs April 2014 contract was a limit price, triggering a disruption under limb (i) of Section 4 (*Market Disruption Events and Material Changes to the Futures Underlying an Index*). This disruption ceased to exist on March 11, 2014. Therefore, the calculation of roll weights was modified as follows:

- The Roll Weight of Lean Hogs in the Macquarie Capped Momentum F0 5% Index (MQCP029E) in respect of March 10, 2014 was equal to 0.2 instead of 0.4
- Since there was no Market Disruption in respect of March 11, 2014, the Roll Weight in respect of this date was equal to 0.6
- The Roll Weights in respect of following Index Business Days were calculated according to Section 1 (*Roll Weights Calculation*) above

## MATERIAL CHANGES TO THE FUTURES UNDERLYING AN INDEX

If, in respect of an Index:

- The specifications of a Contract are altered by the relevant Trading Facility in such a way as to materially affect the ability of the Index to represent a financial investment in the underlying commodity of those futures; or
- (ii) Contracts with the appropriate underlying commodity are no longer traded in the Trading Facility corresponding to an Index,

then the Index Sponsor may, with the approval of the Oversight Committee:

- (i) Alter the specification of the Index in such a way as to ensure that the Index accurately represents a financial investment in the appropriate commodity; or
- (ii) Discontinue the Index.

# SECTION 5: ALLOCATION OF WEIGHTS TO COMMODITIES

In accordance with the investment strategy of the Indices, the principle behind the weight allocation procedure (*Weighting Methodology*) is to overweight the Commodities with the highest Momentum signal and underweight the Commodities with the lowest Momentum signal relative to the Reference Index. The aim is to outperform the Reference Index, subject to a Tracking Error Threshold. Therefore, the weights will be constrained to target an overall volatility of the performance difference between the Index and the Reference Index below the Tracking Error Threshold. (The Tracking Error Threshold confines the difference between the performance of the Index and the performance of the Reference Index.) Lastly, to ensure the Index is diversified, the exposure to Commodities in the same Group will be capped – the Petroleum Group (the largest Group) will be allowed to be as high as 35%, whilst all other Groups will be below or equal to 20%.

The Weighting Methodology will first calculate a Signal for each Commodity. The Signal is a measure of the degree of Momentum observed for each Commodity. Each Commodity is assigned a projected return based on these Signals: the Signals are ranked and the Top Commodities with the strongest degree of Momentum (highest Signals) are assigned a projected return of plus one standard deviation, while the remaining Commodities are assigned a projected return of minus one standard deviation.

The weighting allocation of each Commodity in an Index is selected to not exceed by more than three times the weighting allocation of the same Commodity in the Reference Index. The Weighting Methodology will therefore need to calculate the Reference Weight allocation for each Commodity (described in Section 5.4 (*Weights Calculation*)) subject to this constraint.

An optimization function based on the projected returns is then maximized to find the optimal set of weights. This optimization is subject to four constraints:

- 1. **100% allocation**. The Weights should add up to one i.e. the Index is fully invested (no underleverage/leverage)
- 2. **Reference Index Tracking Error**. The Index imposes a volatility upper bound to the performance difference between the Reference Index and the Index.
- 3. Weight divergence bounds. The allocation to each Commodity needs to be positive (long exposure only) and within three times the allocation given to it in the Reference Index.
- Weight diversification bounds. The exposure to Commodities in the same Group will be capped

   the Petroleum Group (the largest Group) will be allowed to be as high as 35%, while all other Groups will be below or equal to 20%.

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

Section 5.1 describes how the set of Signals are calculated; Section 5.2 describes how the set of Expected Returns and Covariances are calculated; Section 5.3 describes how the set of Reference Weights are calculated;

Section 5.4 describes the calculation of the Weights using inputs from Section 5.2 and 5.3; and

## SECTION 5.1: SIGNALS CALCULATION

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

$$S_{i,R} = \left(\frac{P_{i,R}}{P_{i,R-12M}} - 1\right)$$

where  $P_{i,R}$  is the Settlement Price for the Reference Single-Commodity Index corresponding to Commodity *i* on Holdings Calculation Date *R* and  $P_{i,R-12M}$  is the Settlement Price for Reference Single-Commodity Index corresponding to Commodity *i* on the Holdings Calculation Date *R-12M*. The Holdings Calculation Date *R-12M* is the Holdings Calculation Date closest to the calendar day exactly twelve (12) months prior to the Holdings Calculation Date *R*. For the avoidance of doubt, if two the Holdings Calculation Dates are tied in terms of distance from said calendar day, the earlier of the two will be used.

#### SECTION 5.2: EXPECTED RETURNS AND COVARIANCES

To calculate the set of Expected Returns, we first define the set of Three Month Covariances for the underlying Commodities as:

$$\sigma_{i,j,R} = \left(\frac{252}{63}\right) \times$$

$$\sum_{p=0}^{62} \left( \frac{BUC_{i,R-p}}{BUC_{i,R-p-1}} - \frac{\sum_{q=0}^{62} \frac{BUC_{i,R-q}}{BUC_{i,R-q-1}}}{63} \right) \times \left( \frac{BUC_{j,R-p}}{BUC_{j,R-p-1}} - \frac{\sum_{q=0}^{62} \frac{BUC_{j,R-q}}{BUC_{j,R-q-1}}}{63} \right)$$

for all 
$$i = 1, ..., n$$
 and  $j = 1, ..., n$ .

where the time series of prices  $\{BUC_{i,R-p} | p = 0, ..., 62\}$  refers to the Settlement Prices of the Reference Index's Underlying Contract of Commodity *i* on each of the last 63 Index Business Days ending on the Holdings Calculation Date, *R*. If any Index Business Day is not a trading day for the relevant Trading Facility, then the Settlement Price of that particular Reference Index's Underlying Contract will be the Settlement Price of the most recent trading day for the relevant Trading Facility immediately preceding the Index Business Day *R*.

The set of Signals  $\{S_{1,R}, ..., S_{n,R}\}$  is used to define the set of Expected Returns as

$$r_{i,R} = +\sqrt{\sigma_{i,i,R}}$$

for the Commodity i with the Top largest  $S_{i,R}$  within the set of signals {  $S_{1,R}$ , ...,  $S_{n,R}$ } and

$$r_{i,R} = -\sqrt{\sigma_{i,i,R}}$$

for all other Commodities.

The set of Expected Returns are inputs to the calculation of the set of weights,  $\{W_{1,R}, ..., W_{n,R}\}$  outlined in the next section.

SECTION 5.3: REFERENCE WEIGHTS CALCULATION

On a Holdings Calculation Date, R, each Commodity i has associated with it a corresponding Reference Weight,  $BW_{i,R}$ , given by the formula below:

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

where  $M_{i,R}$  stands for the Reference Multipliers corresponding to Commodity *i* as specified in the Index Specification and  $BUC_{i,R}$  stands for the Settlement Price of the Reference Index's Underlying Contract of Commodity *i* on the Holdings Calculation Date *R*.

#### SECTION 5.4: WEIGHTS CALCULATIONS

The set of weights,  $\{W_{1,R_i}, ..., W_{n,R}\}$  is the solution to the following maximization problem:

$$\max_{\{x_1,\ldots,x_n\}} \sum_{i=1}^n r_{i,R} \times x_i - \frac{1}{2} \sum_{i=1}^n \sum_{j=1}^n (x_i - BW_{i,R}) \times \sigma_{i,j,R} \times (x_j - BW_{j,R})$$

which looks to maximize the set of projected returns subject to the four constraints mentioned in the introduction to this section:

$$\sum_{i=1}^{n} x_i = 1 \, (100\% \, allocation)$$

$$\sum_{i=1}^{n} \sum_{j=1}^{n} (x_i - BW_{i,R}) \times \sigma_{i,j,R} \times (x_j - BW_{j,R}) \le (Tracking \ Error \ Threshold)^2$$

(Benchmark Index Tracking Error)

 $3 \times BW_{i,R} \ge x_i \ge 0$  for all i = 1, ..., n. (Weight divergence bounds) and

$$\sum_{\substack{Commodity_i \in Petroleum \\ \neq Petroleum (Weight diversification bounds)}} x_i \leq 20\% \forall Group$$

and is defined as:

$$W_{i,R} = x_{i,R}$$
 for all  $i = 1, ..., n$ .

The solution to the maximization problem above may differ slightly depending, among other things, on the linear programming technique used to solve the optimization problem. For transparency, the Index Sponsor of an Index will calculate the weights,  $\{W_{1,R}, ..., W_{n,R}\}$  using standard linear programming techniques and will make the set of weights  $\{W_{1,R}, ..., W_{n,R}\}$  used for the purpose of the Index calculations on every Holdings Calculation Date available on request, up to seven (7) decimal points.

Index Name:	Th	e Macquarie Capp	ed Momentum F0 5% Index	
Reference	_		lity Index, available:	
Index:	htt	p://www.bloomb	ergindices.com/bloomberg-commodity-in	<u>dex-family/</u>
	i	Commodity	Reference Single Commodity Index	Bloomberg <sup>®</sup> Ticker
	1	Natural Gas	Bloomberg Natural Gas Subindex	BCOMNG
	2	Crude (WTI)	Bloomberg WTI Crude Oil Subindex	BCOMCL
	3	Crude (Brent)	Bloomberg Brent Crude Subindex	всомсо
	4	RBOB Gasoline	Bloomberg Unleaded Gasoline Subindex	BCOMRB
	5	Heating Oil	Bloomberg Heating Oil Subindex	всомно
	6	Live Cattle	Bloomberg Live Cattle Subindex	BCOMLC
	7	Lean Hogs	Bloomberg Lean Hogs Subindex	BCOMLH
	8	Wheat (Ch.)	Bloomberg Chicago Wheat Subindex	BCOMWH
	9	Wheat (KC)	Bloomberg Kansas Wheat Subindex	BCOMKW
Reference	10	Corn	Bloomberg Corn Subindex	BCOMCN
Single Commodity	11	Soybeans	Bloomberg Soybeans Subindex	BCOMSY
Indices	12	Soybean Oil	Bloomberg Soybean Oil Subindex	всомво
	13	Soybean Meal	Bloomberg Soybean Meal Subindex	BCOMSM
	14	Aluminum	Bloomberg Aluminum Subindex	BCOMAL
	15	COMEX Copper	Bloomberg Copper Subindex	BCOMHG
	16	Zinc	Bloomberg Zinc Subindex	BCOMZS
	17	Nickel	Bloomberg Nickel Subindex	BCOMNI
	18	Lead	Bloomberg Lead Subindex	всомрв
	19	Tin	Bloomberg Tin Subindex	BCOMSN
	20	Gold	Bloomberg Gold Subindex	BCOMGC
	21	Silver	Bloomberg Silver Subindex	BCOMSI
	22	Platinum	Bloomberg Platinum Subindex	BCOMPL

# APPENDIX - INDEX SPECIFICATIONS

	23	Sugar		Blo	omberg	Sugar	Subind	ex			BCOMSB						
	24	Cotton		Bloc	omberg	Cottor	n Subinc	lex			всомст						
	25	Coffee		Bloo	omberg	Coffee	e Subind	ex			всомкс						
	26	Сосоа		Bloomberg Cocoa Subindex								всомсс					
	27	Gas Oil		Bloomberg GasOil Subindex							В	СОМ	GO				
	28	Orange Juice	I	Blooml	berg Ora	ange Ju	uice Sub	index			В	СОМ	Ol				
	29	Feeder Cattle	E	Bloomberg Feeder Cattle Subindex						T	В	СОМ	FC				
Holdings Calculation Date:	Th	e fourth (4th) Index	Busin	ess D	ay of a	give	n caler	ndar r	nontl	า							
Initial Index Level:	10	0															
Index Calendar:	NYMEX																
Index Start Date:	29 February2000																
Index Ticker:	M	QCP029E															
Roll Length:	Fiv	e (5) Index Business	Days														
Roll Start Date:	Th	e fifth (5th) Index Bເ	usines	s Day	of the	e mon	ith										
	i	Commodity	Jan	Feb							ach month the month)						
	1	Natural Gas										Oct	Nov	Dec			
	2	WTI Crude	H	н н	к к	к к	N N	N N	U U	UU	X X	X X	F+ F+	F+ F+			
Static	3	Brent Crude	н	К	K	N	N	U	U	x	X	 F+	F+	H+			
Contract	4	RBOB Gasoline	н	н	К	К	N	N	U	U	X	X	F+	F+			
Schedule	5	Heating Oil	Н	Н	К	К	N	N	U	U	х	х	F+	F+			
Table:	6	Live Cattle	G	J	J	М	М	Q	Q	V	V	Z	Z	G+			
	7	Lean Hogs	G	J	J	М	Μ	N	Q	V	V	Z	Z	G+			
	8	Wheat (Chicago)	Н	Н	к	К	Ν	Ν	U	U	Z	Z	Z	H+			
	9	Wheat (Kansas)	Н	Н	К	К	N	N	U	U	Z	Z	Z	H+			
	10	Corn	Н	Н	К	К	Ν	N	U	U	Z	Z	Z	H+			
	11	Soybeans	Н	Н	К	К	Ν	Ν	Х	х	х	х	F+	F+			

														<u> </u>
	12	Soybean Oil	Н	Н	К	Κ	Ν	Ν	Ζ	Ζ	Ζ	Ζ	F+	F+
	13	Soybean Meal	Н	Н	К	К	Ν	Ν	Ζ	Z	Ζ	Ζ	F+	F+
	14	Aluminum	Н	Н	К	К	Ν	Ν	U	U	Х	Х	F+	F+
	15	High Grade Copper	Н	Н	К	К	Ν	Ν	U	U	Ζ	Ζ	Z	H+
	16	Zinc	Н	Н	К	К	Ν	Ν	U	U	Х	Х	F+	F+
	17	Nickel	Н	Н	К	K	Ν	Ν	U	U	Х	Х	F+	F+
	18	Lead	Н	Н	К	K	Ν	Ν	U	U	Х	Х	F+	F+
	19	Tin	Н	Н	К	K	Ν	Ν	U	U	Х	Х	F+	F+
	20	Gold	G	J	J	М	М	Q	Q	Z	Z	Z	Z	G+
	21	Silver	Н	Н	К	К	Ν	N	U	U	Z	Z	Z	H+
	22	Platinum	J	J	J	Ν	Ν	N	V	V	V	F+	F+	F+
	23	Sugar	Н	Н	К	К	Ν	Ν	V	V	V	H+	H+	H+
	24	Cotton	Н	Н	К	К	Ν	Ν	Z	Z	Z	Z	Z	H+
	25	Coffee	Н	Н	К	К	Ν	Ν	U	U	Z	Z	Z	H+
	26	Сосоа	Н	Н	К	К	Ν	Ν	U	U	Z	Z	Z	H+
	27	Gas Oil	Н	Н	К	К	Ν	Ν	U	U	Х	Х	F+	F+
	28	Orange Juice	Н	Н	К	К	Ν	N	U	U	Х	Х	F+	F+
	29	Feeder Cattle	Н	Н	К	К	Q	Q	Q	V	V	F+	F+	F+
Тор:	10	1												
Tracking	10	10												
Error	Fi	ve percent (5%)												
Threshold:														

Index Name:	Th	e Macquarie Capp	ed Momentum F3 5% Index	
Reference		-	lity Index, available:	
Index:	<u>htt</u>		ergindices.com/bloomberg-commodity-in	
	i	Commodity	Reference Single Commodity Index	Bloomberg <sup>®</sup> Ticker
	1	Natural Gas	Bloomberg Natural Gas Subindex	BCOMNG
	2	Crude (WTI)	Bloomberg WTI Crude Oil Subindex	BCOMCL
	3	Crude (Brent)	Bloomberg Brent Crude Subindex	всомсо
	4	RBOB Gasoline	Bloomberg Unleaded Gasoline Subindex	BCOMRB
	5	Heating Oil	Bloomberg Heating Oil Subindex	всомно
	6	Live Cattle	Bloomberg Live Cattle Subindex	BCOMLC
	7	Lean Hogs	Bloomberg Lean Hogs Subindex	BCOMLH
	8	Wheat (Ch.)	Bloomberg Chicago Wheat Subindex	BCOMWH
	9	Wheat (KC)	Bloomberg Kansas Wheat Subindex	BCOMKW
	10	Corn	Bloomberg Corn Subindex	BCOMCN
Reference	11	Soybeans	Bloomberg Soybeans Subindex	BCOMSY
Single Commodity	12	Soybean Oil	Bloomberg Soybean Oil Subindex	всомво
Indices	13	Soybean Meal	Bloomberg Soybean Meal Subindex	BCOMSM
	14	Aluminum	Bloomberg Aluminum Subindex	BCOMAL
	15	COMEX Copper	Bloomberg Copper Subindex	BCOMHG
	16	Zinc	Bloomberg Zinc Subindex	BCOMZS
	17	Nickel	Bloomberg Nickel Subindex	BCOMNI
	18	Lead	Bloomberg Lead Subindex	всомрв
	19	Tin	Bloomberg Tin Subindex	BCOMSN
	20	Gold	Bloomberg Gold Subindex	BCOMGC
	21	Silver	Bloomberg Silver Subindex	BCOMSI
	22	Platinum	Bloomberg Platinum Subindex	BCOMPL
	23	Sugar	Bloomberg Sugar Subindex	BCOMSB

	24	Cotton		Bloc	omberg	Cottor	n Subinc	lex			В	СОМ	СТ	
	25	Coffee		Bloc	omberg	Coffee	Subind	ex			В	СОМ	КС	
	26		Bloomberg Cocoa Subindex							BCOMCC				
	⊩		Bloomberg GasOil Subindex								BCOMGO			
	27	Gas Oil		BIOC	omberg	Gasor	i Subina	ex						
	28	Orange Juice	I	Bloom	oerg Ora	ange Ju	uice Sub	index			В	СОМ	Ol	
	29	Feeder Cattle	E	Bloomb	erg Fee	eder Ca	ittle Sub	oindex			В	СОМ	FC	
Holdings Calculation Date:	Th	e fourth (4th) Index	Busin	ess Da	ay of a	ı give	n caler	ndar r	nontl	h				
Initial Index Level:	NY	ΥMEX												
Index Calendar:	10	100												
Index Start Date:	29	29 February 2000												
Index Ticker:	M	QCP025E Index												
Roll Length:	Fiv	ve (5) Index Business	s Days											
Roll Start Date:	Th	e fifth (5th) Index B	usines	s Day	of the	e mon	ith							
	i	Commodity	Underlying contract for each month (Contract rolling out during the month) Jan Feb Mar Apr May Jun Jul Aug Sep Oct								Nov	Dec		
	1	Natural Gas	Jan K	N	N	Apr U	May U	X	X	Aug F+	Sep F+	H+	H+	K+
	2	WTI Crude	К	N	N	U	U	Х	Х	F+	F+	H+	H+	K+
	3	Brent Crude	N	Ν	U	U	Х	Х	F+	F+	H+	H+	K+	K+
Static	4	<b>RBOB</b> Gasoline	К	Ν	Ν	U	U	Х	Х	F+	F+	H+	H+	K+
Contract	5	Heating Oil	К	N	N	U	U	Х	Х	F+	F+	H+	H+	K+
Schedule Table:	6	Live Cattle	М	М	Q	Q	V	V	Z	Z	G+	G+	J+	J+
Table:	7	Lean Hogs	М	М	Ν	Q	V	V	Z	Z	G+	G+	J+	J+
	8	Wheat (Chicago)	к	Ν	N	U	U	Z	Z	Z	H+	H+	H+	K+
	9	Wheat (Kansas)	К	N	N	U	U	Z	Z	Z	H+	H+	H+	K+
	10	Corn	К	N	Ν	U	U	Z	Z	Z	H+	H+	H+	K+
	11	Soybeans	К	Ν	N	Х	Х	Х	Х	F+	F+	H+	H+	K+
	12	Soybean Oil	К	N	N	Z	Z	Z	Z	F+	F+	H+	H+	K+
	13	Soybean Meal	К	Ν	Ν	Z	Z	Z	Z	F+	F+	H+	H+	K+

			К	N	N	U	U	Х	Х	F+	F+	H+	H+	K+
	14	Aluminum												
	15	High Grade Copper	К	Ν	N	U	U	Z	Z	Z	H+	H+	H+	K+
	16	Zinc	К	Ν	N	U	U	Х	Х	F+	F+	H+	H+	K+
	17	Nickel	К	Ν	N	U	U	Х	Х	F+	F+	H+	H+	K+
	18	Lead	К	N	N	U	U	Х	Х	F+	F+	H+	H+	K+
	19	Tin	К	N	N	U	U	Х	Х	F+	F+	H+	H+	K+
	20	Gold	М	М	Q	Q	Z	Z	Z	Z	G+	G+	J+	J+
	21	Silver	К	N	N	U	U	Z	Z	Z	H+	H+	H+	K+
	22	Platinum	Ν	Ν	Ν	V	V	V	F+	F+	F+	J+	J+	J+
	23	Sugar	К	N	N	V	V	V	H+	H+	H+	H+	H+	K+
	24	Cotton	К	Ν	Ν	Z	Z	Z	Z	Z	H+	H+	H+	K+
	25	Coffee	К	N	N	U	U	Z	Z	Z	H+	H+	H+	K+
	26	Сосоа	К	Ν	Ν	U	U	Z	Z	Z	H+	H+	H+	K+
	27	Gas Oil	К	Ν	Ν	U	U	Х	Х	F+	F+	H+	H+	K+
	28	Orange Juice	К	N	N	U	U	Х	Х	F+	F+	H+	H+	K+
	29	Feeder Cattle	К	Q	Q	Q	V	V	F+	F+	F+	H+	H+	K+
-											•			
Тор:	10													
Tracking														
Error	Fiv	ve percent (5%)												
Threshold:														

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