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# The JPMorgan Core Commodity
# Investable Global Asset Rotator Sigma

# Synthetic Strategy Rules

## J.P.Morgan

**15 June 2009**

# PART A

## 1. This Document

### 1.1 Introduction

This document comprises the rules of the JPMorgan Core Commodity Investable Global Asset Rotator Sigma, a family of notional rule-based proprietary commodity indices which utilise momentum investment strategies (which, together with the Appendix and related Annexes shall constitute the "**Rules**"). Part A of the Rules prescribes the index methodology applicable for the Index (known as "**Core Commodity-IGAR Sigma**" and/ or the "**Index**"), the key components of which are set out in the Appendix and its Annexes.

### 1.2 Publication of the Rules

These Rules are published by J.P. Morgan Securities Ltd. of 125 London Wall, London EC2Y 5AJ, UK in its capacity as Calculation Agent. See Section 6 for further information in connection with publication of the Rules.

### 1.3 Amendments

These Rules may be amended from time to time at the discretion of the Calculation Agent and will be re-published (see Section 1.2) no later than one calendar month following such amendment.

### 1.4 Availability of Rules

Copies of the Rules may be obtained by investors free of charge upon request to the Calculation Agent.

### 1.5 Risks & disclaimers

Please refer to the Risk Factors and associated Disclaimers set out in Parts B and C of the Rules. No assurance can be given that the investment strategy used to construct Core Commodity-IGAR Sigma will be successful or that Core Commodity-IGAR Sigma will outperform any alternative basket or investment strategy that might be constructed from the Constituents.

### 1.6 No offer of securities

These Rules neither constitute an offer to purchase or sell securities nor specific advice of whatever form (tax, legal, accounting or regulatory) in respect of any investment strategy.

### 1.7 Rules of construction

A reference to a "Section" means a reference to a clause in this Part A unless the otherwise specified and a reference to any "Annex" means a reference to each such specified annex in Part D of this document.

## 2. Summary of Index

### 2.1 Index comprised of variable number of synthetic sub-indices

Each Index represents the performance of an equally-weighted exposure to a number of synthetically constructed sub-indices (each a "**Component Index**").

### 2.2 Construction of Component Indices

*2.2.1* Constituents change on Rebalancing Dates

Component Indices are constructed by reference to the performance of their individual constituents (the "**Constituents**"). The Constituents are selected from a number of sub-asset classes from the global commodities market identified in Annex 5. Subject to the occurrence of any Extraordinary Event (see Section 7), each Component Index shall comprise the same Constituents until the immediately following Rebalancing Date for such Component Index.

*2.2.2*    Difference between Component Indices

The sole difference between Component Indices is that they rebalance on different days on each month, subject to the effect of an occurrence of a Disrupted Day which may cause the Component Indices to rebalance on the same Index Business Day.

2.3    Rebalancing methodology

The rebalancing methodology is carried out on the principal of "momentum investing" which has as its primary assumption that if certain Constituents performed well in the past, they will continue to perform well in the future and the converse applies with respect to poorly performing assets.

2.4    Synthetic strategy, no underlying assets in basket

Core Commodity-IGAR Sigma is a notional basket of assets because there is no actual portfolio of assets to which any person is entitled or in which any person has any ownership interest. Core Commodity-IGAR Sigma merely identifies certain assets in the market, the performance of which is used as a reference point for the purposes of calculating the level of the Index.

## 3.    Calculation Agent

3.1    Identity

JPMSL or any affiliate or subsidiary designated by it will act as calculation agent in connection with the Index (the "**Calculation Agent**").

3.2    Calculation Agent determinations

All determinations of the Calculation Agent in respect of Core Commodity-IGAR Sigma and interpretation of the Rules shall be final, conclusive and binding and no person shall be entitled to make any claim against any of the Relevant Persons in respect thereof. Once a determination or calculation is made or action taken by the Calculation Agent or any other Relevant Person in respect of any aspect of the Core Commodity-IGAR Sigma, neither the Calculation Agent nor any other Relevant Person shall be under any obligation to revise any determination or calculation made or action taken for any reason.

## 4.    Calculating the Index Level

4.1    Frequency

Subject to the occurrence or existence of a Disrupted Day or a Limit Day, the Calculation Agent shall calculate the Index Level in respect of each Index Valuation Day for Index publication purposes, based on (i) the USD Levels of the Constituents of the relevant Component Indices as of such Index Valuation Day, and (ii) if the Index is a total return index, the applicable interest rate specified in the Annex 2 as of such Index Valuation Date (although the Calculation Agent may calculate the Index Level with greater frequency and share this calculation with its affiliates for internal purposes).

4.2    Weighting of Component Indices

*4.2.1*    Detail in Appendix

The Appendix sets out the number of Component Indices and the relevant percentage by which such Component Indices are weighted for the Index.

*4.2.2    Component Index reweighting*

See Annex 1.

*4.2.3    Reweighting Dates*

The dates for reweighting of the Component Indices for the respective Index are set out in the Appendix, Section 2.

*4.2.4    When reweighting takes effect*

Reweighting will take effect each month immediately following the Official Close on the relevant Reweighting Date, unless such Reweighting Date is a Disrupted Day or a Limit Day.

4.3    Constituent Rebalancing and Designation of the applicable Interest Rate, if any

*4.3.1    Detail in Appendix*

The Appendix sets out the number of Constituents and the relevant percentage by which such Constituent is weighted for each Component Index.  If the Index is a total return index, Annex 2 will set forth the applicable interest rate used in the calculation of the Index Level on each Index Valuation Day.  For the avoidance of doubt, the applicable index rate will be applied only to the Index Level and will not directly affect the value of each Component Index on each Index Valuation Day.

*4.3.2    Constituent rebalancings*

The Rebalancing Selection Date applicable to the Index is set out in the Appendix, Section 3.  On such date, the Calculation Agent will:

(a)  determine the Performance of each Constituent in respect of the "**Relevant Observation Period**" (as defined in the Appendix);
(b)  determine the levels and daily returns of the Volatility Calculation Portfolio **("VCP")** in respect of the previous 63 Index Valuation Days (such period, the "**Volatility Observation Period 1");**
(c)  determine the annualized realized daily volatility of the VCP in respect of the Volatility Observation Period 1;
(d)  determine the annualized realized daily volatility of the VCP in respect of the previous 21 Index Valuation Days (such period, the "**Volatility Observation Period 2**"); and
(e)  determine the weight to be assigned to each Constituent on the close of the relevant Rebalancing Date for each Component Index,

in accordance with the methodology set out in the Appendix and Annex 2 respectively.  Notwithstanding anything to the contrary, the levels of the VCP will be determined based on the following assumptions:

1.  The Volatility Control Factor is considered to be always equal to 1 for the purposes of determining the levels of the VCP;
2.  $TBILL_{t-1}$ is considered to be always equal to 0 for the purposes of determining the levels of the VCP; and
3.  Limit Days are ignored for the purposes of determining the levels of the VCP.

*4.3.3    Rebalancing Dates*

The dates for rebalancing the Constituents of each Component Index are set out in the Appendix, Section 3.

*4.3.4    When rebalancing takes effect*

Rebalancing will take effect immediately following the Official Close of the relevant Rebalancing Date, provided that if such day is a Disrupted Day or a Limit Day in respect of a Constituent (an "**Affected Constituent**"), rebalancing in respect of such Affected Constituent shall occur on the day on which it has been valued in accordance with Section 5.2(b)(ii).

## 5.     Effect of Market Disruption Events and Limit Days

5.1     No effect on Rebalancing Selection Dates

The Rebalancing Selection Date will not be affected by Market Disruption or Limit Events.

5.2     Effect on Index Valuation Days (including Reweighting Dates and Rebalancing Dates)

In relation to each Component Index, if any Index Valuation Day is a Disrupted Day or a Limit Day in respect of any Affected Constituent, then:

(a)     such Index Valuation Day shall remain as the day originally scheduled (the "**Original IVD**"); and

(b)     calculation of the level of the Component Index for such valuation day will be calculated retrospectively based on:

(i)     the USD Levels of the Constituents (other than the Affected Constituent(s)) on Original IVD; and

(ii)     the USD Level of each Affected Constituent on the next Scheduled Trading Day that is not a Limit Day or a Disrupted Day for such Constituent,

provided that, if all five (5) Index Valuation Days immediately following the Original IVD are either Disrupted Days or Limit Days for any Affected Constituent(s), the Calculation Agent shall, on the 5th Index Valuation Day following the Original IVD, calculate:

(A)     the USD Level(s) for such Affected Constituent(s) for the relevant Index Valuation Day;

(B)     the level of the Component Index for the relevant Index Valuation Day; and

(C)     the Index Level for the Original IVD.

acting in good faith using such information and/or methods as it determines, in its reasonable discretion, are appropriate (notwithstanding that such day is a Disrupted Day or a Limit Day for one or more Constituents).

## 6.     Publication of Index Levels

6.1     Publication source

The Index Level shall be published on Bloomberg®. (see Appendix, Section 1 for appropriate Bloomberg ticker).

6.2     Impact of force majeure on publication source

The Calculation Agent shall not be obliged to provide the Index Level by any alternative method if the Bloomberg ticker is subject to any delay in or interruptions of publication or as a result of the occurrence of a Force Majeure Event.

6.3     No obligation to publish on Disrupted Days or Limit Days

The Calculation Agent is not obliged to publish the Index Level in respect of any day which is a Disrupted Day or a Limit Day, although it may nevertheless do so retrospectively.

6.4     Format of publication; number of decimal places

The Index Level will be reported to four (4) decimal places (although the Calculation Agent may maintain a record of the Index Level with greater precision for internal purposes) for every Index Valuation Day.

## 7. Extraordinary Events

7.1     Successor Constituent

If any Constituent is:

(a)     not calculated and announced by the relevant Index Sponsor but by a successor sponsor acceptable to the Calculation Agent; or

(b)     replaced by a successor index using, in the determination of the Calculation Agent, the same or substantially similar formula and method of calculation as used in the calculation of the relevant Constituent,

then in each case that successor index (the "**Successor Constituent**") shall replace the relevant Constituent with effect from a date determined by the Calculation Agent who may make such adjustment to these Rules, as it determines in good faith is appropriate, to account for such change.

7.2     Alteration of Constituents; Discontinuation of the Calculation and Publication of the Index

Without prejudice to the ability of the Calculation Agent to amend the Rules (see Section 1.3), the Calculation Agent may, acting in good faith and in a commercially reasonable manner:

(a)     exclude; or

(b)     substitute for,

any Constituent following (i) the occurrence or continuation of an Extraordinary Event with respect to such Constituent, as determined by the Calculation Agent in its sole discretion or (ii) in circumstances where it considers it reasonably necessary to do so to reflect the intention of the Core Commodity-IGAR Sigma strategy, including (without prejudice to the generality of the foregoing) changes announced by an index sponsor relating to the modification, exclusion, inclusion or substitution of a Constituent or the Constituent's underlying futures and/or options contracts, or any perception among market participants generally that the published USD Level of the relevant Constituent is not tradable as determined by the Calculation Agent or not representative of the actual purported value of the Index determined by reference to such index's methodology (and the Index Sponsor of such Constituent fails to correct such USD Level), and if it so excludes or substitutes for any Constituent, then the Calculation Agent may adjust the Rules as it determines in good faith to be appropriate to account for such exclusion or substitution on such date(s) selected by the Calculation Agent.

Upon the occurrence and/or continuation of an Extraordinary Event, with respect to any of the Constituents, the Calculation Agent may discontinue the calculation and publication of the Index and is under no obligation to calculate and publish the Index.

For the purposes hereof, "**Extraordinary Event**" means either:

(a)     due to:

        (i)     the adoption of, or any change in, any applicable law, regulation or rule (including, without limitation, any tax law); or

        (ii)    the promulgation of, or any change in, the interpretation by any court, tribunal or regulatory authority with competent jurisdiction of any applicable law, rule, regulation or order (including, without limitation, as implemented by the U.S. Commodity and Futures Trading Commission or exchange or trading facility),

in each case, the Calculation Agent determines in good faith that (x) it is contrary to such law, rule, regulation or order for any market participants that are brokers or financial intermediaries (individually or collectively) to hold, acquire or dispose of (in whole or in part) any Constituent or any transaction referencing any Constituent or, (y) holding a position in any Constituent or any transaction referencing any Constituent is (or, but for the consequent disposal or termination thereof, would otherwise be) in excess of any allowable position limit(s) applicable to any market participants that are brokers or financial intermediaries (individually or collectively) under any such law, rule, regulation in relation to such Constituent traded on any exchange(s) or other trading facility (including, without limitation, any relevant exchange); or

(b) the occurrence or existence of any:

(i) suspension or limitation imposed on trading commodities futures contracts (including, without limitation the Constituents); or

(ii) any other event that causes trading in commodity futures contracts (including, without limitation Constituents) to cease.

7.3 Material Change

If, at any time, the Index Sponsor of a Constituent:

(a) announces that it will make a material change in the formula or the method of calculating that Constituent or in any other way materially modifies that Constituent (other than a modification prescribed in that formula or method to maintain that Constituent in the event of changes in constituent commodity futures and other routine events); or

(b) permanently cancels the Constituent and no successor index exists or fails to calculate and announce the USD Level of the Constituent,

then the Calculation Agent shall remove such Constituent from the universe of the Constituents and may adjust the Rules as it determines in good faith to be appropriate to account for such change(s) on such date(s) selected by the Calculation Agent.

7.4 Cancellation of Index Licence

If, at any time:

(a) the licence granted to the Calculation Agent by the Index Sponsor of any Constituent to use such Constituent for the purposes of Core Commodity-IGAR Sigma terminates; or

(b) the Calculation Agent's right to use any Constituent for the purposes of Core Commodity-IGAR Sigma is otherwise impaired or ceases (for any reason),

then, the Calculation Agent shall remove such Constituent from the universe of the Constituents and may adjust the Rules as it determines in good faith to be appropriate to account for such change(s) on such date(s) selected by the Calculation Agent.

## 8. Corrections

If:

(a) the USD Level of any Constituent used to calculate the Index Level on any Index Valuation Day is subsequently corrected and the correction is published by the relevant Index Sponsor before the next Rebalancing Date; or

(b) the Calculation Agent identifies an error or omission in any of its calculations or determinations in respect of Index Level,

then, the Calculation Agent may, if practicable and it considers such correction material, adjust or correct the published Index Level for such day and each subsequent Index Valuation Day and publish such corrected Index Level(s) as soon as reasonably practicable.

## 9. Responsibility for the Rules; Limitations on liability

9.1 Calculation Agent standards

The Calculation Agent shall act in good faith and in a commercially reasonable manner.

9.2 Ambiguities in the Rules

Whilst these Rules are intended to be comprehensive, ambiguities may arise. If so, the Calculation Agent will resolve such ambiguities and, if necessary, amend these Rules to reflect such resolution.

9.3 Limitation of liability

No Relevant Person shall have any responsibility to any person (whether as a result of negligence or otherwise) for any determinations made or anything done (or omitted to be determined or done) in respect of Core Commodity-IGAR Sigma or in respect of the publication of the Index Level (or failure to publish such level) or any use to which any person may put Core Commodity-IGAR Sigma or the Index Levels.

## 10. Miscellaneous

10.1 Determinations

Any determination required to be made or action required to be taken in respect of Core Commodity-IGAR Sigma on a day that is not an Index Valuation Day, shall be made or taken (as the case may be) on the next following Index Valuation Day.

10.2 Governing law

These Rules shall be governed by and construed in accordance with the laws of England.

## 11. Definitions

Capitalised terms not otherwise defined herein shall have the following meanings:

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| "**Affected Constituent**" | see Section 4.3.4; |
| "**Calculation Agent**" | see Section 3; |
| "**Constituent**" | means a constituent of the Index described in Annex 5 (*The Constituents*); |
| "**Core Commodity-IGAR Sigma**" | means the index documented in accordance with these Rules referenced in the Appendix, Section 1; |
| "**Disrupted Day**" | means a day on which a Market Disruption Event occurs or exists; |

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| **"Exchange"** | means, in respect of any Constituent, any exchange on which futures or options contracts relating to that Constituent are traded; |
| "**Force Majeure Event**" | any event beyond the control of the Calculation Agent, including any act of God, act of governmental authority, or act of public enemy, or due to war, the outbreak or escalation of hostilities, fire, flood, civil commotion, insurrection, labour difficulty including, without limitation, any strike, other work stoppage, or slow-down, severe or adverse weather conditions, power failure, communications line or other technological failure; |
| "**Index Level**" | means the level of the Index, determined in accordance with the Rules; |
| "**Index Sponsor**" | means, in respect of a Constituent, the corporation or other entity that (a) is responsible for setting and reviewing the rules and procedures and the methods of calculation and adjustments, if any, related to such Constituent and (b) announces (directly or through an agent) the USD Level of such Constituent on a regular basis; |
| "**Index Valuation Day**" | means each day (other than a Saturday or a Sunday): (i) on which commercial banks in both New York and London are open generally for business (including for dealings in foreign exchange and foreign currency deposits); and (ii) which is a Scheduled Trading Day for all Constituents; |
| "**Limit Day**" | means, in respect of a Constituent, any day on which there is a limitation on, or suspension of, the trading of options or futures contracts on the related commodity imposed by any relevant Exchange by reason of movements exceeding "limit up" or "limit down" levels permitted by such Exchange and which, in the opinion of the Calculation Agent, is material taking into account generally prevailing Scheduled Trading Day trading volumes and other market conditions; |
| "**Market Disruption Event**" | means in respect of a Constituent and an Index Valuation Day (as the case may be), the failure by the relevant Index Sponsor to calculate and publish the USD Level for such Constituent; |
| "**Official Close**" | means, in respect of all Constituents and on any Index Valuation Day, the latest to occur (monitored on a continuous 24 hour basis) of the official closing times of each relevant Exchange; |
| "**Performance**" | has the meaning given to such term in Section 1 (*Performance Calculation*) of Annex 4; |
| **"Rebalancing Date"** | means, in relation with any Component Index (subject to the occurrence of a Market Disruption Event) the Index Valuation Day of every month specified in the Appendix, Section 1; |

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| **"Rebalancing Selection Date"** | has the meaning given to such term in the Appendix; |
| **"Relevant Observation Period"** | has the meaning given to such term in the Appendix; |
| **"Relevant Person"** | means the Calculation Agent or any of its affiliates or subsidiaries or their respective directors, officers, employees, representatives, delegates or agents (as the case may be); |
| **"Reweighting Date"** | means, subject to the occurrence of a Market Disruption Event, the Index Valuation Day of every month specified in the Appendix; |
| "**Rules**" | means the rules of the Index as set out in this document (including the Appendix and all Annexes), as the same may be amended, supplemented and/or restated from time to time; |
| **"Scheduled Trading Day"** | means, in respect of a Constituent, a day on which the relevant Index Sponsor is scheduled to publish the USD Level of such Constituent and the principal exchange for futures and options contracts on such Constituent is scheduled to be open for trading for its regular trading session; |
| "**Successor Constituent**" | has the meaning given to such term in paragraph 7.1 (*Successor Constituent*) of these Rules; |
| "**USD**" | means the lawful currency of the United States of America; and |
| "**USD Level**" | means, in respect of a Constituent, (i) the closing level of such Constituent as calculated and published by the relevant Index Sponsor, or (ii) in the event of circumstances set out in Section 5.2, as reasonably calculated by the Calculation Agent, or (iii) in the event of circumstances set out in Section 7.1, as calculated and published by the sponsor of the relevant Successor Constituent. |
| **"Volatility Calculation Portfolio" or "VCP"** | has the meaning given to such term in the Appendix |
| **"Volatility Observation Period 1" or "VOP1"** | has the meaning given to such term in the Appendix |
| **"Volatility Observation Period 2" or "VOP2"** | has the meaning given to such term in the Appendix |

# PART B

## RISK FACTORS

The following list of risk factors does not purport to be a complete enumeration or explanation of all the risks associated with Core Commodity-IGAR Sigma and should be read in conjunction with the relevant Appendix**.**

*1       Past performance should not be used as a guide to future performance*

The past performance of any other Core Commodity-IGAR Sigma index should not be used as a guide to future performance of that index or the Index.  Any back-testing or similar analysis performed by any person in respect of Core Commodity-IGAR Sigma must be considered illustrative only and may be based on estimates or assumptions not used by the Calculation Agent when determining the Index Level pursuant to these Rules.

*2       Synthetic Exposure to Commodities*

The Core Commodity-IGAR Sigma Indices are purely synthetic.  There is no pool of futures to which any person is entitled or in which any person has any ownership interest or which serve as collateral for the return on any product referencing Core Commodity-IGAR Sigma.

*3       Constituents are "excess return"*

The return from investing in futures contracts derives from three sources:

(a)      changes in the price of the relevant futures contracts (which is known as the "**price return**");

(b)      any profit or loss realised when rolling the relevant futures contracts (which is known as the "**roll return**"); and

(c)      any interest earned on the cash deposited as collateral for the purchase of the relevant futures contracts (which is known as the "**collateral return**").

The Constituents are "excess return" indices which means that they measure the returns accrued from investing in uncollateralized futures or, in other words, the sum of the price return and the roll return associated with an investment in futures.  Investing in any product linked to the Constituents will therefore not generate the same return as one would obtain from investing directly in the relevant futures contracts.

*4       Certain futures contracts lack market depth – impact on liquidity and pricing*

The level of each Constituent may be affected by the relative liquidity in the underlying commodity futures contracts underlying such Constituent.  In general, if liquidity declines in the relative underlying futures contracts, the level of the Constituent may be adversely affected and the volatility of the Constituent level may increase.  A decline in the absolute level of a Constituent may adversely affect the Index Level if such Constituent is a Strongest Constituent, conversely, an increase in the absolute level of a Constituent may adversely affect the Index Level if such Constituent is a Weakest Constituent.  Additionally, an increase in price volatility may adversely affect the Index Level because Constituents with increased price volatility due to constrained liquidity may not meet the requirements of Consistency Tests and the Reversal Tests.  If the Index does not select any Constituents, the commodity related return on the Index may be equal to zero.  Additionally, the liquidity at certain points in the commodities futures curve may adversely affect the Index Level.  For example, overall liquidity as measured by open interest in the relevant commodity may not decline, but may shift to points outside the near month contracts.  If this shift occurs, the price volatility of futures contracts as measured in terms of near month contracts may increase because there is less liquidity in those contracts. Because the Constituents measure the price of front month contracts, a relative shift in the futures curve (even without an overall decline in the liquidity of the commodity in general) may result in a failure of the Index's underlying momentum strategy.  No Constituents may be selected or Constituents may be selected and not perform in their applicable direction because of a decline in front month liquidity.

*5        Commodity prices impacted by global macro-economic and political factors*

Prices for commodities are affected by a variety of factors, including changes in supply and demand relationships, governmental programmes and policies, national and international political and economic events, wars and acts of terror, changes in interest and exchange rates, trading and speculative activities in commodities and related contracts, weather, and agricultural, trade, fiscal, monetary and exchange control policies.  The price volatility of each commodity also affects the value of the futures and forward contracts related to that commodity and therefore its price at any such time.  The price of any one commodity may be correlated to a greater or lesser degree with any other commodity and factors affecting the general supply and demand as well as the prices of other commodities may affect the particular commodity in question.

In respect of commodities in the energy sector, due to the significant level of its continuous consumption, limited reserves, and oil cartel controls, energy prices are subject to rapid price increases in the event of perceived or actual shortages.   These factors (when combined or in isolation) may affect the price of futures contracts and, as a consequence, the performance of the Constituents and the Index Level.

The commodities markets are subject to temporary distortions or other disruptions due to various factors, including the lack of liquidity in the markets, the participation of speculators and government regulation and intervention. These circumstances could adversely affect the price of futures contracts and, therefore, the performance of the Constituents and the Index Level.

*6        Momentum investment strategy*

Core Commodity-IGAR Sigma is constructed using what is generally known as a momentum investment strategy. Momentum investing generally seeks to capitalize on trends in the price of assets.

**No assurance can be given that the investment strategy used to construct Core Commodity-IGAR Sigma will be successful or that Core Commodity-IGAR Sigma will outperform any alternative basket that might be constructed from the Constituents.**

*7        Return on synthetic basket necessarily different from investment in physical underlyings*

The results that may be obtained from investing in any security or investment or otherwise participating in any transaction linked to Core Commodity-IGAR Sigma might well be significantly different from the results that could theoretically be obtained from a direct investment in the Constituents or any related derivatives.  Such differences may arise for a number of reasons.

*8        Diversification*

Diversification is generally considered to reduce the amount of risk associated with generating returns, however there can be no assurance that Core Commodity-IGAR Sigma will be sufficiently diversified at any time to reduce or minimize such risks to any extent.

*9.        Calculation Agent discretion*

The Calculation Agent is entitled to exercise certain discretions in relation to Core Commodity-IGAR Sigma, including but not limited to, the determination of the values to be used in the event of Market Disruption Events and the interpretation of these Rules.  Although the Calculation Agent will make all determinations and take all action in relation to Core Commodity-IGAR Sigma acting in good faith, such discretion could have an impact, positive or negative, on the Index Level.

*10.        Separation of Rebalancing Dates*

The weight of the Constituents of each Component Index of Core Commodity-IGAR Sigma may fluctuate during the period from (and excluding) one Rebalancing Date to (and including) the next following Rebalancing Date due to

movements in the USD Level of each of those Constituents.  Similarly, the weight of the Component Indices of Core Commodity-IGAR Sigma may fluctuate during the period from (and excluding) one Reweighting Date to (and including) the next following Reweighting Date due to movements in the USD Level of each of the underlying Component Indices. Each of these factors may potentially dilute the return of the Index relative to a direct investment in the underlying Constituents over the same period.

*11.    Extraordinary Event Risk*

If an Extraordinary Event occurs or is continuing, the Calculation Agent may exclude or substitute the affected Constituent.  The exclusion of one or more Constituents may adversely affect the performance of the Index by restricting the available number of Constituents that can be referenced.  Additionally, the substitution of an affected Constituent will alter the index, and such substitution may adversely change the Index Level.  For example, the substitute Constituent may have a higher volatility or less of a directional bias than the original Constituent.  Such factors could adversely affect the Index Level.

*12.    Potential Conflicts of Interest*

Potential conflicts of interest may exist in the structure and operation of Core Commodity-IGAR Sigma and the conduct of normal business activities by any Relevant Person.   Please refer to the following Part C for further details.

**The foregoing list of risk factors is not intended to be exhaustive.  Anyone reading these Rules should seek such advice as they consider necessary from their professional advisors, legal, tax or otherwise, without reliance on any Relevant Person to satisfy themselves that they fully understand these Rules and the risks associated with Core Commodity-IGAR Sigma.**

# Part C

## NOTICES, DISCLAIMERS AND CONFLICTS

These Rules have been prepared solely for informational purposes and nothing herein constitutes an offer to buy or sell any securities, participate in any transaction or adopt any investment strategy or as legal, tax, regulatory or accounting advice.  The Rules are of the date specified above and may change at any time without prior notice.

No Relevant Person makes any representation or warranty, whatsoever, express or implied, as to the results that may be obtained through the use of these Rules or Core Commodity-IGAR Sigma.

Each Relevant Person hereby expressly disclaims, to the fullest extent permitted by law, all warranties of accuracy, completeness, merchantability, or fitness for a particular purpose with respect to any information contained in this document and no Relevant Person shall have any liability (direct or indirect, special, punitive, consequential or otherwise) to any person even if notified of the possibility of any such damages.

The Calculation Agent is under no obligation to continue the calculation, publication and dissemination of the Index or the Index Level.

During the course of their normal business, the Calculation Agent or any other Relevant Person may enter into or promote, offer or sell transactions or investments (structured or otherwise) linked to Core Commodity-IGAR Sigma and/or any of the Constituents.  In addition, any Relevant Person may have, or may have had, interests or positions, or may buy, sell or otherwise trade positions in or relating to Core Commodity-IGAR Sigma or any of the Constituents, or may invest or engage in transactions with other persons, or on behalf of such persons relating to any of these items. Such activity may or may not have an impact on the Index Level but all persons reading these Rules should be aware that a conflict of interest could arise where anyone is acting in more than one capacity.

Neither the Calculation Agent nor any other Relevant Person has any duty to consider the circumstances of any person when participating in such transactions or to conduct themselves in a manner that is favourable to any person.

The Rules have been developed with the possibility of the Calculation Agent or any of the Relevant Persons entering into or promoting, offering or selling transactions or investments (structured or otherwise) linked to Core Commodity-IGAR Sigma, and hedging the obligations that might arise under any such transactions or investments.

The Index provides an exposure of a notional basket of assets because there is no actual portfolio of assets to which any person is entitled or in which any person has any ownership interest.  Core Commodity-IGAR Sigma merely identifies certain assets in the market, the performance of which will be used as a reference point for the purposes of calculating the Index Level.

The Calculation Agent need not publish the Index Level by any alternative method if the relevant Bloomberg ticker (as identified in the Appendix) is subject to any delay in or interruptions of publication for any reason including the occurrence of a Force Majeure Event.

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# Part D

**Appendix: INDEX KEY INFORMATION**

Capitalised terms not otherwise defined in this Appendix have the meaning as set out in the Rules.

**1.      Trade Specific Inputs:**

| | |
|---|---|
| *Index Name*: | Core Commodity-IGAR Sigma Long-Short Total Return Index |
| *Bloomberg ticker*: | CMDSLSTR |
| *Number of Component Indices*: | 5 ("**CI**") |
| *Number of Constituents per CI*: | 14 ("**NC**") |
| *Maximum Number of Ranked Constituents per CI*: | 7 ("**MNRC**") |
| *Target Weight:* | means [1/MNRC]. |
| *Negative Target Weight*: | means [-1/MNRC]. |
| *Zero Target Weight:* | means zero per cent (0%). |
| Reversal Amount | means ten percent (10%) |
| Volatility Target | means twenty percent (20%) |

**2.      Reweighting**

| | |
|---|---|
| *Reweighting Methodology:* | The Index shall rebalance monthly on the relevant Reweighting Date, in accordance with the Reweighting Algorithm. |
| *Reweighting Dates***:** | monthly on the 11th Index Valuation Day, subject to the occurrence of a Disrupted Day. |
| *Reweighting Algorithm*: | See Annex 1 to this Appendix |

**3.      Rebalancing**

| | |
|---|---|
| *Rebalancing Methodology:* | Each Component Index shall rebalance monthly on the relevant Rebalancing Date, based on the Performance of the Constituents over the Relevant Observation Period in accordance with the Rebalancing Algorithm. |
| *Rebalancing Selection Date:* | Means the 11th Index Valuation Day of each month. |
| *Rebalancing Dates:* | Means the 12th, 13th, 14th, 15th and 16th Index Valuation Day of each month. |
| *Performance*: | See Annex 4 |
| *Relevant Observation Period*: | See Annex 4 |

| | |
|---|---|
| Volatility Observation Period 1 | means, in respect of the Index and any Rebalancing Selection Date, the period including the first 63 Index Valuation Days that are not Disrupted Days occurring immediately preceding said Rebalancing Selection Date |
| Volatility Observation Period 2 | means, in respect of the Index and any Rebalancing Selection Date, the period including the first 21 Index Valuation Days that are not Disrupted Days occurring immediately preceding said Rebalancing Selection Date |
| *Rebalancing Algorithm:* | See Annex 2 |

## 4. Rebalancing Steps

4.1 Determination of Strongest and Weakest Constituents

In order to rebalance each Component Index, on each Rebalancing Selection Date, the Calculation Agent shall determine both the Strongest Constituents and the Weakest Constituents by:

a. calculating the Performance of each Constituent over the Relevant Observation Period using the Performance Calculation in Annex 4 hereto;

b. ranking all Constituents with a positive Performance over the Relevant Observation Period according to their Performances in descending order from the strongest to the weakest and applying both the Long Consistency Test (see Section 5.1 hereof) and the Long Reversal Test (see Section 6.1 thereof) to such Constituents;

c. ranking the Constituents with a negative or zero Performance over the Relevant Observation Period according to their Performances in ascending order from the weakest to the strongest and applying both the Short Consistency Test (see Section 5.2 hereof) and the Short Reversal Test (see Section 6.2 thereof) to such Constituents.

4.2 Ranking the Constituents

*4.2.1* Strongest Constituents

The Constituents with a positive Performance which have successfully passed the Long Consistency Test and the Long Reversal Test are the eligible long Constituents (the "**Eligible Long Constituents**"). Among the Eligible Long Constituents, those which display the strongest positive Performance, subject to the MNRC, are termed the strongest Constituents (the "**Strongest Constituents**") and are assigned the Target Weight. The Target Weight shall be assigned to each of the Strongest Constituents even if their number is less than the MNRC.

*4.2.2* Weakest Constituents

The Constituents with a negative or zero Performance which have successfully passed the Short Consistency Test and the Short Reversal Test are the eligible short Constituents (the "**Eligible Short Constituents**"). Among the Eligible Short Constituents, those which display the weakest negative or zero Performance, subject to the MNRC, are the weakest Constituents (the "**Weakest Constituents**") and are assigned the Negative Target Weight. The Negative Target Weight shall be assigned to each of the Weakest Constituents even if their number is less than the MNRC.

*4.2.3* The remaining Constituents are zero weighted

The remaining Constituents (if any) are assigned the Zero Target Weight.

*4.2.4* Strongest Constituents and Weakest Constituents never to exceed the MNRC

The Calculation Agent shall calculate the Performance of each Constituent to the required number of decimal places to ensure that neither the number of Strongest Constituents nor the number of Weakest Constituents ever exceeds the MNRC.

4.3 Rebalancing inputs

The Strongest Constituents and the Weakest Constituents are used as inputs in the Rebalancing Algorithm run on the immediately following Rebalancing Date for such Component Index.

**5. Consistency Tests**

5.1 The Long Consistency Test

*5.1.1* The Long Consistency Test is applied to Constituents displaying a positive Performance.[1]

On each Rebalancing Selection Date (the "**Relevant Rebalancing Selection Date**"), the Calculation Agent shall calculate the "**Consistency**" of each Constituent for which the Performance is a positive number in accordance with the following formula:

$$\text{Consistency}_i(\text{Month}_m) = \sum_{h=1}^{h=12} \text{Indicator}_i(\text{Month}_{m+1-h})$$

Where:

$$\text{Indicator}_i(\text{Month}_{m+1-h}) = \begin{cases} C_h & \text{if} \quad \text{Level}_i(\text{Month}_{m+1-h}) > \text{Level}_i(\text{Month}_{m+1-(h+1)}) \\ 0 & \text{Otherwise} \end{cases}$$

Where:

$\text{Consistency}_i(\text{Month}_m)$ is the Consistency of the $i$th Constituent at the Relevant Rebalancing Selection Date.

$\text{Level}_i(\text{Month}_{m+1-h})$ is the USD Level of the $i$th Constituent at the close of the Index Valuation Day immediately preceding the Relevant Rebalancing Selection Date of the calendar month which is (h-1) months before the Relevant Rebalancing Selection Date ; and where such day is not a Disrupted Day for the Constituent in question. For the avoidance of doubt, the month which is zero months before the Relevant Rebalancing Selection Date is the month in which said date occurs.

$\text{Level}_i(\text{Month}_{m+1-(h+1)})$ is the USD Level of the $i$th Constituent at the close of the Index Valuation Day immediately preceding the Relevant Rebalancing Selection Date of the calendar month which is h months before the Relevant Rebalancing Selection Date ; and where such day is not a Disrupted Day for the Constituent in question.

$C_h$ is defined by $\quad C_h = A \times e^{-r \cdot (h-1)}$

$A, r$ are constants that are calibrated so that: $\quad \dfrac{C_1}{C_{12}} = 5$ and $\sum_{h=1}^{12} C_h = 12$,

---

[1] The Long Consistency Test is designed to identify the Constituents which are showing consistent recent increases in price on the basis of monthly observations where recent months are weighted more significantly than earlier months.

which gives $A = 1.97449$ $r = 0.14631$ to an accuracy of 5 decimal places.

*5.1.2*     Requirement to pass the Long Consistency Test

The $i$th Constituent will be deemed to have successfully passed the Long Consistency Test on the Relevant Rebalancing Selection Date if:

$$Consistency_i(Month_m) \geq 6$$

5.2     Short Consistency Test

*5.2.1*     The Short Consistency Test is applied to Constituents displaying a negative or zero Performance.[2]

On each Relevant Rebalancing Selection Date, the Calculation Agent shall calculate the "**Short Consistency**" of each Constituent of the Index in accordance with the following formula:

$$ConsistencyS_i(Month_m) = \sum_{h=1}^{h=12} IndicatorS_i(Month_{m+1-h})$$

Where:

$$IndicatorS_i(Month_{m+1-h}) = \begin{cases} C_h & \text{if} \quad Level_i(Month_{m+1-h}) < Level_i(Month_{m+1-(h+1)}) \\ 0 & \text{Otherwise} \end{cases}$$

Where:

$Level_i(Month_{m+1-h})$, $Level_i(Month_{m+1-(h+1)})$ and $C_h$ are defined in Section 5.1 hereof.

*5.2.2*     Requirement to pass the Short Consistency Test

The $i$th constituent will be deemed to have successfully passed the "**Short Consistency Test**" on the Relevant Rebalancing Selection Date if:

$$ConsistencyS_i(Month_m) \geq 6$$

**6.     Reversal Tests**

6.1     The Long Reversal Test

The Long Reversal Test is applied to Constituents displaying a positive Performance which also pass the Long Consistency Test.[3]

---

[2] The Short Consistency Test is designed to identify the Constituents which are showing consistent recent decreases in price on the basis of monthly observations where recent months are weighted more significantly than earlier months.

[3] The Long Reversal Test is designed to identify the Constituents which are showing consistent recent increases in price but have shown a recent rapid reversal from the previously indicated momentum signal.

On each Rebalancing Selection Date the Calculation Agent shall calculate the performance of the Constituent over the most recent month, as per the formula below. The $i^{th}$ constituent will be deemed to have successfully passed the **"Long Reversal Test"** on the Relevant Rebalancing Selection Date if:

$$\frac{Level_i(Month_m)}{Level_i(Month_{m-1})} - 1 > - \operatorname{Re}versal\ Amount$$

where $Level_i(Month_m)$ and $Level_i(Month_{m-1})$ are as defined in section 5.1.

6.2     The Short Reversal Test

The Short Reversal Test is applied to Constituents displaying a negative or zero Performance which also pass the Short Consistency Test.[4]

On each Rebalancing Selection Date the Calculation Agent shall calculate the performance of the Constituent over the most recent month, as per the formula below. The $i^{th}$ constituent will be deemed to have successfully passed the **"Short Reversal Test"** on the Relevant Rebalancing Selection Date if:

$$\frac{Level_i(Month_m)}{Level_i(Month_{m-1})} - 1 < \operatorname{Re}versal\ Amount$$

where $Level_i(Month_m)$ and $Level_i(Month_{m-1})$ are as defined in section 5.1.

**7.     Volatility Control Factor[5]**

7.1     Calculating the Volatility Calculation Portfolio
The Volatility Calculation Portfolio is used to calculate the Volatility Control Factor. The level of the portfolio is determined by reference to the formulas set forth in Annex 1, 2 and 4, subject to the following assumptions:

4.   The Volatility Control Factor is considered to be always equal to 1 for the purposes of determining the levels of the VCP;
5.   $TBILL_{t-1}$ is considered to be always equal to 0 for the purposes of determining the levels of the VCP; and
6.   Limit Days are ignored for the purposes of determining the levels of the VCP.

7.2     Calculating the Volatility of the VCP
On each Rebalancing Selection Date the Calculation Agent shall calculate the annualized daily rolling historical realized volatility of the Volatility Calculation Portfolio over the two Volatility Observation Periods using the following formulae:

The volatility over VOP1 will be shown as Vol1 and calculated using the following formula:

$$Vol1 = \sqrt{\frac{63 \times \sum_{t=1}^{63} r_t^2 - \left(\sum_{t=1}^{63} r_t\right)^2}{63 \times 62} \times \sqrt{252}}$$

The volatility over VOP2 will be shown as Vol2 and calculated using the following formula:

---

[4] The Short Reversal Test is designed to identify the Constituents which are showing consistent recent decreases in price but have shown a recent rapid reversal from the previously indicated momentum signal.
[5] The Volatility Control Factor is designed to reduce exposure to the commodity portion of the Index, if the historical realized volatility of the Volatility Calculation Portfolio over any of the two Volatility Observation Periods is greater than the Volatility Target.  If the historical realized volatility of the Volatility Calculation Portfolio over any of the two Volatility Observation Periods is greater than the Volatility Target, the Volatility Control Factor will be equal to the Volatility Target divided by the greater of Vol1 and Vol2.

$$Vol2 = \sqrt{\frac{21 \times \sum\limits_{t=1}^{21} r_t^2 - \left(\sum\limits_{t=1}^{21} r_t\right)^2}{21 \times 20}} \times \sqrt{252}$$

Where:

$r_t$ is the daily return of the VCP on day t, calculated as $r_t = (VCP_t / VCP_{t-1}) - 1$
$VCP_t$ is the level of the Volatility Calculation Portfolio on day t
t=1…63 signifies the t-th preceding consecutive non-Disrupted Index Valuation Day from the Rebalancing Selection Date

7.3    Calculating the VCF
The VCF is then calculated as follows:
1.    if Vol1=Vol2=0: VCF = 100%
2.    otherwise:

$$VCF = Min\left(\frac{Volatility\ T\arg et}{Max\left(Vol1,\ Vol2\right)}, 100\%\right), \text{rounded down to 4 decimal places}$$

**Annex 1 - Re-weighting Algorithm**

Section 1: Index commencement date and commencement level

The Index's starting level was deemed to be 100 on 15th September 2006 (the "**First Index Valuation Day**"), as follows:

$$CMDSLSTR(t_0) = 100$$

Section 2: Index Level in respect of any Index Valuation Day t

At the close of each Index Valuation Day t (the "**Relevant Index Valuation Day**"), the Index Level shall be calculated by the Calculation Agent in accordance with the following formula:

$$CMDSLSTR(t) = CMDSLSTR(t-1) \times$$

$$\left[ \frac{1 + VCF(RWD_{n-1}) \times \frac{1}{CI} \times \sum_{k=1}^{CI} \left( \frac{Component\ Index_k(t)}{Component\ Index_k(RWD_{n-1})} - 1 \right)}{1 + VCF(RWD_{n-1}) \times \frac{1}{CI} \times \sum_{k=1}^{CI} \left( \frac{Component\ Index_k(t-1)}{Component\ Index_k(RWD_{n-1})} - 1 \right)} + TBR_t \right] \times (1 + TBR_t)^{A(t)}$$

Where:

*CMDSLSTR (t)* is the Index Level on the Relevant Index Valuation Day.

$n$ is the number of Re-weighting Dates from, and including, the First Index Valuation Day to, and including, $RWD_{n-1}$.

$RWD_{n-1}$ is the Re-weighting Date immediately preceding the Relevant Index Valuation Day.

$CMDSLSTR(t-1)$ is the Index Level on the Index Valuation Day immediately preceding the Relevant Index Valuation Day, rounded to 4 decimal places.

$VCF(RWD_{n-1})$ is the Volatility Control Factor for the Rebalancing Selection Date immediately preceding the Re-weighting Date immediately preceding the Relevant Index Valuation Day. See Annex 7. For avoidance of doubt, if the Re-weighting Date is a Rebalancing Selection Date, this date will be used.

$Component\ Index_k(t)$ is the Component Index level for the kth Component Index on the relevant Index Valuation Day, rounded to 4 decimal places.

$Component\ Index_k(RWD_{n-1})$ is the Component Index level for the kth Component Index on the Re-weighting Date immediately preceding the Relevant Index Valuation Day, rounded to 4 decimal places.

$TBR_t$ is the Treasury Bill return on the Relevant Index Valuation Day, calculated using the following formula:

$$\left( (1 - \frac{91}{360} \times TBILL_{t-1})^{\frac{-1}{91}} \right) - 1$$

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| | |
|---|---|
| $TBILL_{t-1}$ | is the 3 month weekly Auction High Discount Rate for United States Treasury Bills on the Index Valuation Day immediately preceding the Relevant Index Valuation Day, as reported on the Bloomberg® Ticker USB3MTA and expressed as a money market rate; *provided, however* if such rate is not available at the applicable Bloomberg Ticker, the rate will be determined in accordance with Annex 6 below. |
| $A(t)$ | is the number of calendar days which are not Index Valuation Days from (and excluding) the Index Valuation Day immediately preceding the Relevant Index Valuation Day to (and including) the Relevant Index Valuation Day t. |

**Annex 2 -Rebalancing Algorithm**

Section 1: Component Indices commencement date and commencement level

Each Component Index k's starting level was deemed to be 100 on 15th September 2006 (the "**First Index Valuation Day**"), as follows:

$$Component\ Index_k(t_0) = 100$$

Section 2          Component Indices level in respect of any Index Valuation Day t

At the close of each Index Valuation Day t (the "**Relevant Index Valuation Day**"), the kth Component Index level shall be calculated by the Calculation Agent in accordance with the following formula:

$$Component\ Index_k(t) =$$

$$Component\ Index_k(RD_{n-1,k}) \times \left\{ 1 + \sum_{i=1}^{NC} \left[ WC_i(RD_{n-1,k}) \times \left( \frac{Level_i(t)}{Level_i(RD_{n-1,k})} - 1 \right) \right] \right\}$$

Where:

$Component\ Index_k(t)$ is the index level of the kth Component Index on the Relevant Index Valuation Day.

| | |
|---|---|
| $n$ | is the number of Rebalancing Dates for the kth Component Index from, and including, the First Index Valuation Day to, and including, $RD_{n-1,k}$. |
| $RD_{n-1,k}$ | is the Rebalancing Date for the kth Component Index immediately preceding the Relevant Index Valuation Day. |
| $Level_i(t)$ | is the USD Level of the ith Constituent at the close of the Relevant Index Valuation Day $t$. |
| $Level_i(RD_{n-1,k})$ | is the USD Level of the ith Constituent at the close of the Rebalancing Date for the kth Component Index immediately preceding the Relevant Index Valuation Day. |
| $WC_i(RD_{n-1,k})$ | is any of the Target Weight, the Negative Target Weight or the Zero Target Weight of the ith Constituent implemented at the close of the Rebalancing Date for the kth Component Index immediately preceding the Relevant Index Valuation Day. |
| $Component\ Index_k(RD_{n-1,k})$ | is the level of the kth Component Index on the Rebalancing Date for the kth Component Index immediately preceding the Relevant Index Valuation Day, rounded to 4 decimal places. |

**Annex 3 - Additional Risk Factors specific to the Core Commodity-IGAR Sigma Long-Short Total Return Index**

In addition to the general risk factors set out in Part B, the following risk factors are relevant to the Index:

*1        The use of a "long-short strategy"*

The Index employs a technique generally known as "long-short" strategy.  This means that each Component Index could include a number of notional long positions and a number of notional short positions.  Unlike long positions, short positions are theoretically subject to unlimited risk of loss because there is no limit on the amount by which the price of the relevant asset may appreciate before the short position is closed.  The Component Indices may engage in notional short positions in accordance with the Index calculation algorithms set out herein and it is therefore possible that during the time from, but excluding, one Rebalancing Date to, and including, the next following Rebalancing Date any notional short position included in any Component Index may appreciate substantially with an adverse impact on its Component the Index Level, and consequently, on the Index Level.

*2        The use of leverage*

The Index employs a technique generally known as "long-short" strategy.  This means that for each of the Component Indices, and as part of this strategy, the sum of the absolute values of the Target Weights may be greater than 1 and, consequently, any Component Index and hence the Index itself may include leverage.  Leverage offers greater potential for enhanced performance of the Index, but also brings greater risk.  Where the synthetic portfolio is leveraged, any price movements in the Constituents may result in a proportionately higher reduction in the Index Level than if they were not leveraged.

3.        *Risks Related to Reversal Tests*

The long or short reversal test may reduce your exposure to a commodity experiencing only a short term reversal.  The long or short reversal test, as applicable, is intended to reduce the synthetic exposure of the Index to constituents which, despite consistent past performance, display a recent reversal of greater than 10% over the previous month.  Consequently, the Index Level may fail to appreciate as it would otherwise have if synthetic exposure had been maintained to a Constituent which experiences only a short term reversal, and which subsequently performs in line with its consistent past performance.  In addition, where a Constituent's reversal is less than 10% over the previous month, the long or short reversal test, as applicable, will not reduce the synthetic exposure of the Index and in circumstances where the reversal continues, this will have an adverse impact on the Index Level.

4.        *Risk Related to the Volatility Control Factor*

The volatility target may not be met and the volatility control factor may cause the synthetic exposure of the Index to be reduced in circumstances where you may have benefited from increased volatility.  The volatility control factor aims to limit the exposure of the Index to Constituents, by scaling down all the Constituents weights in such a way that the historical realized volatility of the Index would have remained at or below its volatility target over the volatility observation periods.  However, no assurance can be given that applying the volatility control factor will successfully keep the actual realized volatility of the Core-Commodity-IGAR Sigma Long-Short Total Return Index below the volatility target.  In addition, the volatility control factor may result in you're a reduced exposure of the Index to Constituents at a time when it would otherwise have had a positive impact on the Index Level to be exposed to increased volatility.

5.        *Interest Rate Risk related to this Total Return Index*

The Index is a total return index, which means that the Index includes an interest component that reflects hypothetical interest earned on the cash deposited as collateral for the purchase of the relevant futures contracts.  Because a portion of the performance of the Index will be based on the T-Bill Rate, changes in interest rates will affect the Index Level.  In general, if interest rates increase, we might expect the Index Level to increase, notwithstanding the excess return associated with the selected Constituents, and, conversely, if the interest rates decrease, we might expect that the Index Level may decrease because the appreciation of the Index Level is linked to the T-Bill Rate.

**Annex 4: Performance Calculation**

On each Rebalancing Selection Date (the "**Relevant Rebalancing Selection Date**"), and in relation with each Component Index, the Performance over a period of 12 months (the "**Relevant Observation Period**") of the $i^{th}$ Constituent shall be calculated by the Calculation Agent in accordance with the following formula:

$$Performance_i(Month_m) = \left[\frac{Level_i(Month_m)}{Level_i(Month_{m-12})}\right] - 1 \text{, (expressed as a percentage)}$$

Where:

$Level_i(Month_m)$      is the USD Level of the $i^{th}$ Constituent at the close of the Index Valuation Day immediately preceding the Relevant Rebalancing Selection Date, and which is not a Disrupted Day (if such day was deemed to have been a Disrupted Day, then the immediately preceding Index Valuation Day for such Affected Constituent which was not a Disrupted Day, which may be a different day for different Constituents).

$Level_i(Month_{m-12})$      is the USD Level of the $i^{th}$ Constituent at the close of the Index Valuation Day immediately preceding the Relevant Rebalancing Selection Date of the calendar month which is 12 months before the Relevant Rebalancing Selection Date, and which is not a Disrupted Day (if such day was deemed to have been a Disrupted Day, then the immediately preceding Index Valuation Day for such Affected Constituent which was not a Disrupted Day, which may be a different day for different Constituents).

**Annex 5: Constituents**

Subject to Section 7 of Part A, the following table sets out the Constituents potentially comprising the Index, together with their respective Bloomberg® tickers.

| Asset | Bloomberg® ticker | Asset | Bloomberg® ticker |
|---|---|---|---|
| **Energy**: | | **Industrial metals** | |
| Brent Crude Oil | SPGCBRP | Nickel | SPGCIKP |
| Crude Oil | SPGCCLP | Lead | SPGCILP |
| Gasoline (RBOB) | SPGCHUP | Copper | SPGCICP |
| Heating Oil | SPGCHOP | Aluminium | SPGCIAP |
| Natural Gas | SPGCNGP | | |
| | | **Agriculture** | |
| **Precious metals** | | Soybean | SPGCSOP |
| Silver | SPGCSIP | Wheat | SPGCWHP |
| Gold | SPGCGCP | Corn | SPGCCNP |

**Annex 6: Additional Market Disruption Events specific to the Commodity-IGAR Sigma Total Return Indices**

In addition to the Market Disruption Events set out in Part A, the following will constitute Market Disruption Events with respect to the Index:

If such rate for such date does not appear on Bloomberg® ticker USB3MTA (or any official successor page thereto), the rate for that date will be the Bond Equivalent Yield of the rate displayed in H.15 Daily Update, currently http://www.federalreserve.gov/releases/h15/update/, (or any official successor page thereto), or such other recognized electronic source used for the purpose of displaying such 3-month T-bill rate for that day under the caption "U.S. Government Securities/Treasury bills/Auction high" converted by the Calculation Agent in a commercially reasonable manner to bank discount basis such that it is expressed in the same manner as the TBill Auction High Rate.

If such rate for such date does not appear on Bloomberg® ticker USB3MTA (or any official successor page thereto) and such 3-month rate is not displayed in the H.15 Daily Update under the caption "U.S. Government securities/Treasury bills/Auction high" or another recognized electronic source, the rate for that date will be the Bond Equivalent Yield of the auction rate for those Treasury Bills as announced by the United States Department of Treasury, converted by the Calculation Agent in a commercially reasonable manner to bank discount basis such that it is expressed in the same manner as the TBill Auction High Rate.

If the rate for United States 3-monthTreasury Bills is still not available, the rate will be determined by Calculation Agent in good faith and in a commercially reasonable manner.