CMC MARKETS LIQUIDITY WEIGHTED COMMODITY INDEX METHODOLOGY

INDEX DESCRIPTION

1. Definitions:

"**CMC Markets**" means CMC Markets UK plc and CMC Spreadbet plc (registered number 02448409 and 02589529 respectively);

"**Index**" means the CMC Markets Energy Index and the CMC Markets Agriculture Index (as applicable);

"**Index Component**" means one of the CMC Markets cash commodities used to construct the Index Price;

"**Index Launch Date**", means the day on which the Index first begins pricing and from when the base value begins. See "Further Information" for further base value information;

"**Index Disruption Event**", means any event such as but not limited to, an exchange holiday that results in the suspension of pricing or a change to the contract specification of any of the Index Components;

"**Index Divisor"** means the number used to calculate the Index;

"**Initial Index Value**" means $10,000,000 calculated in accordance with section 3;

"**Index Price"** means the price of the Index;

"Index Rebalancing", means the adjustment made to an Index by the Index Review Panel post an Index Review Panel meeting.

"**Index Review Panel**" means the committee that reviews the Index Components at least on the Review Date or at any other time and which is composed of at least three members of CMC Markets to be nominated and replaced from time to time by the Group Head of Trading of CMC Markets in London, 133 Houndsditch, London, EC3A 7BX;

"**Outgoing Component**" means the affected Index Component which is substituted with another Index Component as a result of a Substitution Event;

"**Qualifying Component**" means an Index Component chosen for inclusion within the Index by the Index Review Panel;

"**Rebalancing Date**" means the first Trading Day of the month following a Review Date;

"**Review Date**" means the third Friday in March each year, starting in 2019, or any other date as the Index Review Panel may determine in its sole discretion;

"**Substitution Event**" means the replacement of an Index Component as a result of an Index Disruption Event or decision by the Index Review Panel; and

"Trading Day" means any day that CMC Markets is open that is also a trading day on all the relevant exchanges for the Index Components other than a day on which trading on any such relevant exchange is scheduled to close prior to its regular weekday closing time.

2. Initial Index Composition and Minimum Number of Index Components

On the Index Launch Date the Index will initially comprise of the number of Index Components listed in **Table 7.1** and **Table 7.3** (section 7) as relevant, deemed suitable for inclusion by the Index Review Panel**.**

The Index Components will be weighted according to the average daily trade value of the nearest 6 futures contracts where available for the 12 months preceding the Index Launch Date, which in turn will be based on the Initial Index Value. To reduce the excessive impact an individual Index Component can have on the Index, generally, no Index Component will have an initial weight that exceeds a percentage cap (specified in **Table 7.2** or **Table 7.4**, as applicable). The weighting for that Index Component will be reduced to the percentage cap with any excess value distributed proportionally across the other Index Components. Following this, the weightings of any uncapped Index Component that are below the percentage floor (**Table 7.2** or **Table 7.4**, as applicable) will be increased to the percentage floor redistributing the proportional value from any uncapped Index Component above the percentage floor. The cap and floor procedure will be undertaken just once for the initial composition of the Index Components and may result in an Index Component's final weight exceeding the cap or falling below the floor following the initial Index Rebalancing exercise. This may happen where the weight of an Index Component is close to the cap or the floor and the redistribution of the weighting of the Index Components causes the weight of the Index Component that was close to the cap or floor to breach it.

With a target Initial Index Value of $10m, the calculated weights will be used to assign a proportion of the Index value to each Index Component, which will then determine a number of units per Index Component using the closing prices of the day preceding the Index Launch Date. The number of units of each Index Component is rounded to the nearest integer, which may result in a minor difference to the Index value. See the "Further Information" section for the components, weightings and rounding error percentage.

The Index will initially and at each Index Rebalancing, comprise of the number of Index Components listed in **Table 7.1** and **Table 7.3** (section 7) as relevant, but may be subject to review if there are less than the number of Index Components listed in **Table 7.1** and **Table 7.3** due to an Index Disruption Event or if the Index Review Panel determines that there has been a material change to any of the Index Components.

Between an Index Rebalancing, an Index Component can be deleted from the Index due to Index Disruption Events.

3. Index Composition and Method of Calculation

On the Index Launch Date (t=0) the Index value will have an Initial Index Value of $10,000,000 (as calculated below):

$$IV_{(0)} = \sum_{i=1}^{n} X_{(i,0)} * P_{(i,0)}$$

Where:
$IV_{(0)}$ = Initial Index Value on Trading Day **t**=0

$X_{(i,0)}$ = Number of units of component **i** in the Index after cap and floor rules have been applied
$P_{(i,0)}$ = Price of component **i** in the Index on Trading Day **t**=0
n = Number of components in the Index on Trading Day **t**=0

The Index Price will then be calculated using the following formula:

$$IP_{(s)} = \frac{\sum_{i=1}^{n} X_{(i,t)} * P_{(i,s)}}{D_{(t)}}$$

Where:
$IP_{(s)}$ = Current Index Price at time **s**
t = The launch or last rebalancing date
$P_{(i,s)}$ = Last published CMC Markets bid or ask price of component **i** at time **s**
n = Number of components in the Index on Trading Day **t**
$X_{(i,t)}$ = Number of units of component **i** in the Index on Trading Day **t** after cap and floor rules have been applied
$D_{(t)}$ = Index Divisor (as defined below) on Trading Day **t**

The Index Divisor is a number used to set the Index Price at a starting base level. If a change in value of the Index is expected due to a non-market driven event in relation to any of the Index Components, then a new Index Divisor will be calculated based on the close price, of each Index Component, on the day before the expected event to maintain consistency of the Index Price.

4. Index Disruption Event

If, in the determination of the Index Review Panel, an Index Disruption Event has occurred, the Index Review Panel will decide on the best course of action as to whether to remove or continue to include the affected Index Component(s) within the Index. In either case, a new Index Divisor will be calculated using the last good CMC Markets close price of each Index Component before the Index Disruption Event of the affected Index Component.

5. Periodic Review of the Index

The Index shall be reviewed by the Index Review Panel on each Review Date at least annually. On the Review Date, all Index Components shall be reweighted as per the method on the Index Launch Date and a new number of units per Index Component calculated.

The basis for the rebalancing shall be the respective prices of the Index Components on the relevant Rebalancing Date whereby the Index Price after the Rebalancing Date shall be equal to the Index Price before the Rebalancing Date.

If, in the determination of the Index Review Panel, an Index Disruption Event has occurred on a Rebalancing Date or Review Date, the Rebalancing Date or Review Date shall be postponed to the first succeeding Trading Day on which the Index Review Panel determines that there is no Index Disruption Event.

6. Index Component Substitution

The Index Review Panel will determine if each of the Index Components still qualifies as a Qualifying Component at each Review Date. If a Substitution Event occurs, the Outgoing Component will be substituted with an alternative Index Component on the Rebalancing Date, subject to an Index Disruption Event.

The Index Review Panel shall substitute for such relevant Outgoing Component a new Index Component with effect from the Rebalancing Date.

If no Qualifying Component exists, the value of the Outgoing Component will be distributed proportionally across the remaining Index Components.

The basis for the substitution shall be the respective CMC Markets close prices of the Index Components on the relevant Rebalancing Date.

7. Further Information

CMC Markets Energy Index

General description:
The CMC Markets Energy Index tracks the performance of six CMC Markets cash commodity instruments. This Index will be reviewed by the Index Review Panel annually.

The Index was created with a base level of 1,000 as of 29th March 2019.

Index Components on Index Launch Date:

Table 7.1

Component i	Initial weighting w(i,0)
Crude Oil West Texas	38.40%
Crude Oil Brent	28.79%
Low Sulphur Gasoil	9.51%
Gasoline	8.47%
Heating Oil	8.25%
Natural Gas	6.59%

The percentage rounding error for the CMC Markets Energy Index is 0.002%.

Table 7.2

Weighting Restriction	Weighting
Cap	40%
Floor	5%

CMC Markets Agriculture Index

General description:
The CMC Markets Agriculture Index tracks the performance of 12 CMC Markets cash commodity instruments. This Index will be reviewed by the Index Review Panel annually.

The Index was created with a base level of 1,000 as of 29th March 2019.

Index Components on Index Launch Date:

Table 7.3

Component i	**Initial weighting w(i,0)**
Soybean	27.71%
Corn	20.56%
Soybean meal	10.83%
Wheat	10.40%
Coffee Arabica (US)	6.25%
Soybean Oil	5.91%
Sugar Raw (US)	5.60%
Cotton	3.69%
US Cocoa	3.01%
Robusta Coffee	2.00%
Sugar White (UK)	2.00%
Oats	2.00%

The percentage rounding error for the CMC Markets Agriculture Index is 0.011%.

Table 7.4

Weighting Restriction	**Weighting**
Cap	30%
Floor	2%