

Deutsche Bank



**Description of the Deutsche Bank Commodity Fundamental Fair Value EUR ERAC
Index™**

Date: 12 June 2018

Version: 2

In the event of any inconsistency between the English language version of the text below and that which may be translated into any other language, the English language version shall prevail. Terms used herein have the meaning given to them in Section 3 (*Definitions*).

All determinations of the Index Administrator described herein shall be made according to the terms set out herein and, save for manifest error, shall be final and binding on all parties.

The Index Administrator is not obliged to enter into, or promote, transactions or investments that are linked to the Index.

Subject as provided by law, the Index Administrator is under no obligation to maintain or calculate the Index and may cancel or cease to calculate the Index at any time without notice.

The Index Administrator does not assume any obligation or duty to any party and under no circumstances does the Index Administrator assume any relationship of agency or trust or of a fiduciary nature for or with any party. Any calculations or determinations in respect of the Index or any part thereof shall be made by the Index Administrator acting reasonably and in good faith and shall (save in the case of manifest error) be final, conclusive and binding. The term "manifest error" as used herein shall mean an error that is plain and obvious and can be identified from the results of the calculation or determination itself without: (i) recourse to any underlying data; or (ii) any application or re-application of any formulae.

The Index Administrator may delegate and/or transfer any of its obligations and/or functions to one or more third parties as it deems appropriate from time to time.

The Index Administrator makes no express or implied representations or warranties as to (a) the advisability of purchasing or assuming any risk in connection with any transaction which references or is otherwise linked to this Index, (b) the levels at which the Index stands at any particular time on any particular date, (c) the results to be obtained by any party from the use of the Index or any data included in it for the purposes of issuing securities or carrying out any financial transaction or (d) any other matter. Calculations may be based on information obtained from various publicly available sources. The Index Administrator has relied on these sources and has not independently verified the information extracted from these sources and accepts no responsibility or liability in respect thereof. If there is a calculation error the Index Administrator may restate the Index Level.

Without limiting any of the foregoing, in no event shall the Index Administrator have any liability (whether in negligence or otherwise) to any person in connection with such person's unauthorised use of the Index. "Unauthorised use" shall be construed as any use of the Index except where such use is pursuant to a transaction between a party and Deutsche Bank AG in respect of the Index.

Without limiting any of the foregoing, where use of the Index by a party is pursuant to a transaction between that party and Deutsche Bank AG, in no event shall the Index Administrator have any liability to any person except where such liability arises from the Index Administrator's wilful default, negligence resulting from a breach of material obligations only, or gross negligence in all other respects.

Nothing herein shall be taken to exclude any liability for fraud on the part of the Index Administrator.

Without prejudice to the foregoing, in no event shall the Index Administrator have any liability for any indirect, special, punitive or consequential damages (provided that any such damage is not reasonably foreseeable) even if notified of the possibility of such damages.

Conflicts of Interest

Conflicts of interest may exist or arise between the Index Administrator and Deutsche Bank entities acting in other capacities, including as Administrator for the Index or as counterparty to a transaction or as contributor of forecasts that feed into the

calculation of the index. Each relevant Deutsche Bank entity will pursue actions and take steps that it deems appropriate to protect its own interests without regard to the consequences for investors in respect of any investment or instrument linked or relating to the Index or otherwise.

Deutsche Bank entities shall be entitled to receive fees or other payments pursuant to investments or instruments linked or relating to the Index or otherwise and to exercise all rights, including rights of termination or resignations, which they may have, even though doing so may have a detrimental effect on investors in any investment or instrument linked or relating to the Index.

Trading and other transactions by Deutsche Bank AG or its affiliates

Deutsche Bank AG and/or its affiliates may hedge its obligations under any relevant instruments or financial products linked to the Index by purchasing or selling securities and other assets, or listed or over-the-counter options, futures, swaps or other derivative financial instruments underlying or linked to the Index. Although they are not expected to, any of these hedging activities may adversely affect the value of such assets, and therefore the Index Level or the value of any relevant instruments or financial products linked to the returns from these hedging activities while the level of the Index and/or relevant instruments or financial products linked to the Index declines.

Deutsche Bank AG and/or its affiliates may also engage in trading in securities and other assets, or listed or over-the-counter options, futures, swaps or other derivative financial instruments underlying or linked to the Index on a regular basis as part of their general broker-dealer and other businesses, for proprietary accounts, for other accounts under management or to facilitate transactions for customers. Any of these activities could adversely affect the value of such assets, and therefore the Index Level or the value of any relevant instruments or financial products linked to the Index. With respect to any of these activities, neither Deutsche Bank AG nor any of its affiliates has any obligation to take the level of the Index into consideration at any time.

This document is referred to as the **Index Description** and consists of the following Sections:

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The Deutsche Bank Commodity Fundamental Fair Value EUR ERAC Index (*Bloomberg Code: DBCFFVEN <Index>*) (the **Index**) is a Deutsche Bank AG proprietary index. The Index is the intellectual property of Deutsche Bank AG (**Deutsche Bank AG** or the **Index Owner**, which expression shall include any successor in such capacity). The Index Owner owns the copyright and all other intellectual property rights in the Index and this Index Description. Any use of these intellectual property rights must be with the prior written consent of the Index Owner.

The Index will be governed by the Index Administrator (as defined below). The initial Index Administrator shall be Deutsche Bank AG operating through Deutsche Bank Index Quant (**DBIQ**), a research unit within Deutsche Bank AG via its internal processes and the **Index Administrator** shall mean Deutsche Bank AG acting in such capacity or any successor thereto. The Index Administrator controls the creation and operation of the Index

administrative process, including all stages and processes involved in the production and dissemination of the Index. Notwithstanding that the Index relies on information from third party sources, the Index Administrator has primary responsibility for all aspects of the Index administration and determination process.

The Index Administrator has implemented and maintains the DBIQ User Guidance and Administrator Handbook Overview (the **Overview**), which sets out a summary of the policies, procedures and controls implemented by the management of the Index Administrator to promote sound business practices for the lifecycle management of the Index Owner's proprietary benchmarks by the Index Administrator. The Overview also includes the Index Administrator's policy related to quality of benchmarks and input data management. Additional issues related to governance, controls, benchmark classification and risk controls, restatement and calculation error management, periodic reviews and conflicts of interest are also addressed. The Overview does not form part of this Index Description or of any document into which this Index Description may be incorporated.

1. INTRODUCTION TO THE INDEX

This section summarises a number of features of the Index. This section should be read as a summary introduction to the Index Description but is no substitute for reviewing the Index Description in full. Capitalised terms not otherwise defined shall have the meanings given in Section 3 (Definitions).

The Index to which this Index Description relates is owned by the Index Owner and is administered by the Index Administrator. Certain key features of the Index are as follows:

- The Index tracks a rules-based strategy notionally investing in a commodity index (the **Sub-Index**) which tracks a rules-based strategy notionally investing in a weighted basket of commodity indices which in turn track a selection of single commodity sub-indices taking a nominal long or short position based on the relative undervaluation or overvaluation of the futures' prices.
- The Index Level in respect of each Index Business Day will be reduced by the Running Cost in respect of such Index Business Day. The deduction of such cost means that the Index Level will be lower than would be the case if no cost was deducted.
- The Index Level will, subject as provided below, be calculated in respect of each Index Business Day by the Index Administrator and may be used in connection with one or more financial products (each a **Financial Product**) relating to the Index. The Financial Products may be issued or entered into by Deutsche Bank AG, London Branch or other financial product providers. Each investor in relation to Financial Products is referred to as a **Financial Product Investor**.
- Although the Index Administrator will obtain information for inclusion in or for use in the calculation of the Index from sources which the Index Administrator considers reliable, the Index Administrator will not independently verify such information and does not guarantee the accuracy and/or the completeness of the Index or any data included in the Index. The Index Administrator shall not be liable (whether in negligence or otherwise) to any person for any error in the Index and the Index Administrator is under no obligation to advise any person of any error therein.
- All determinations referred to below will be made by the Index Administrator by reference to such factors as it deems appropriate and such determinations will, save for manifest error, be binding on all parties.
- The Index is "notional" in nature. This means that the Index Administrator is not obliged to enter into transactions in respect of each commodity future in order to calculate the Index.
- The Index contains Disruption Event provisions which apply when events require the Index Administrator to calculate the Index on an alternative basis were such event to occur or exist on such day, as described in Section 6 (*Disruption Events*) below. If a Disruption Event occurs, the Index Administrator may make such adjustments and/or determinations in relation to the Index as it may determine, in its sole and absolute

discretion, appropriate to facilitate the calculation and publication of the Index Level or, if such adjustment or calculation cannot be made, defer calculation and publication of the Index Level and, in some cases, permanently cease to calculate the Index. These events may have an adverse effect on Financial Product Investors. Index Levels which are calculated following any such delay may give different economic results in relation to the Financial Products than the Index Levels which would have prevailed but for such delay. If the Index is cancelled or adjusted, this may lead to the calculation agent in respect of a Financial Product taking action under provisions of the Financial Product which may have an adverse effect on Financial Product Investors.

- The Index contains Adjustment Event provisions which entitle the Index Administrator to make such modifications and/or changes in its reasonable discretion deems appropriate, as described in Section 7 (*Adjustment Provisions*) below. If market, regulatory, judicial, financial, fiscal or other circumstances arise that would, in the determination of the Index Administrator, necessitate or make desirable a modification or change to this Index Description in order for the Index to continue to be calculated and determined notwithstanding the relevant circumstances, the Index Administrator may make such modifications or changes.
- This Section 1 (*Introduction to the Indices*) is subject to and qualified by the remainder of this Index Description.
- The Index Level will be expressed in the Index Currency.

2. INDEX RISK FACTORS

The risk factors set out in this Section 2 (*Index Risk Factors*) are not a comprehensive list of all risks that might have an adverse effect on the value of the Index. When considering an investment in a Financial Product, prospective Financial Product Investors should review carefully the whole of the Index Description and form their own decisions as to risks associated with the Index Administrator and the Index.

Risks relating to the Index

Volatility of Commodities: Trading in commodities is speculative and may be extremely volatile. Commodity prices are affected by a variety of factors that are unpredictable including, for example, changes in supply and demand relationships, weather patterns and extreme weather conditions, environmental disasters, governmental programmes and policies, national and international political, military, terrorist and economic events, fiscal, monetary and exchange control programmes and changes in interest and exchange rates. Commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, the participation of speculators and government regulation and intervention. These circumstances could also adversely affect prices of the relevant commodity. Therefore, commodity prices may be more volatile than other asset classes.

Deduction of the Running Cost from the Index Level: The Index Level in respect of each Index Business Day will be reduced by the Running Cost in respect of such Index Business Day. The deduction of such cost means that the Index Level will be lower than would be the case if no cost was deducted.

Commodity Futures: The price of a futures contract on a commodity will generally be at a premium or at a discount to the spot price of the underlying commodity. Accordingly, products linked to commodity futures contracts may provide a different return than products linked to the relevant physical commodity.

Index Rebalancing: Each Index is rebalanced and the weight assigned to each Sub-Index is adjusted with effect from each Rebalancing Day and remains fixed until the next Rebalancing Day. Therefore, any sudden changes (positive or negative) to a Sub-Index and the trend in respect of the performance of each Sub-Index in between Rebalancing Days will not be taken into consideration in calculating the Index Level until the next Rebalancing Day.

Index Administrator's Powers: The Index Administrator has a number of discretions in relation to an Index, which always have to be exercised in good faith and in a commercially reasonable manner. Nevertheless the exercise of these discretions may have a significant

effect on Financial Products. In particular:

- If a Disruption Event occurs, the Index Administrator may make such adjustments and/or determinations in relation to the Index as it may determine, in its sole and absolute discretion, appropriate to facilitate the calculation and publication of the Index Level or postpone or cancel and permanently cease to calculate an Index. A Disruption Event may occur, amongst other things, as a result of the failure of trading to commence, or the permanent discontinuation of trading in any relevant futures contract.
- If market, regulatory, judicial, financial, fiscal or other circumstances arise that would necessitate or make desirable a modification or change to this Index Description, the Index Administrator may make such modifications or changes.

General risks

Multiple roles of Deutsche Bank Entities: Conflicts of interest may exist between the Index Owner, initial Index Administrator and Deutsche Bank AG, London Branch and its affiliates (each a **Deutsche Bank Entity**).

A Deutsche Bank Entity may also act as the issuer of, or an obligor under, a Financial Product and as a dealer, calculation agent or hedge provider in relation to a Financial Product. Various conflicts of interest might exist or arise as a result of these different roles as well as from the overall activities of Deutsche Bank Entities. Deutsche Bank AG has a regulatory obligation to take reasonable steps to manage such conflicts fairly. Such reasonable steps include information walls being maintained between the personnel of Deutsche Bank Entities involved in different roles. However, as with any set of systems and controls there is a risk that such information walls might not be effective in all cases.

No disclosure of information: Deutsche Bank Entities may be in possession at any time of information in relation to the Index which may not be available to Financial Product Investors. There is no obligation on any Deutsche Bank Entity to disclose to Financial Product Investors any such information.

Fees: Deutsche Bank Entities shall be entitled to receive fees or other payments and exercise all rights, including rights of termination or resignation, which they may have, even though this may have a detrimental effect on the Index and Financial Products.

Hedging Arrangements: The Index is calculated as a "notional" index. This means that the Index reflects the performance of notional commodity futures contracts as further outlined and detailed in each Sub-Index, but there is no requirement for the Index Administrator to enter into commodity futures contracts in relation to such commodity futures contracts in order to calculate the Index. Deutsche Bank Entities may enter into commodity futures contracts in order to meet obligations in respect of Financial Products or for any other purpose, but Deutsche Bank Entities are not required to do this. If they do, Deutsche Bank Entities will have certain rights pursuant to such futures contracts and will pursue actions and take steps that they deem appropriate to protect their own interests.

Political and Economic Factors: Commodity futures may be influenced by a number of circumstances, including but not limited to political events, general economic conditions, government intervention, changes in balances of payments and trade, domestic and international rates of inflation, international trade restrictions and currency devaluations. Any such circumstance (or a combination of them) may cause unexpected volatility or illiquidity in the commodity futures markets. This may have an adverse effect on Index Levels which may in turn have an adverse effect on the performance of Financial Products.

Future Regulatory Change in respect of commodity futures: Legal and regulatory changes could adversely affect commodity futures. In addition, many governmental agencies and regulatory organisations are authorised to take extraordinary actions in the event of market emergencies. The effect of any future legal or regulatory change on commodity futures is not possible to predict, but could be substantial and adverse.

Future Regulatory Change in respect of indices: Legal and regulatory changes could adversely affect indices including the Index or any Sub-Index. The effect of any future legal

or regulatory change on indices may not be possible to predict, but could be substantial and adverse.

3. DEFINITIONS

Affiliate means, in respect of the Index Administrator, any entity controlled, directly or indirectly, by the Index Administrator, any entity that controls, directly or indirectly, the Index Administrator or any entity directly or indirectly under common control with the Index Administrator. For this purpose, **control** of any entity or person means ownership of a majority of the voting power of the entity or person.

Bloomberg means Bloomberg L.P. or any successor thereto.

DBIQ Website means <http://www.index.db.com>.

EUR means the lawful single currency of the member states of the European Union that have adopted and continue to retain a common single currency through monetary union in accordance with European Treaty law (as amended from time to time).

Force Majeure Event means, in respect of the Index, an event or circumstance (including, without limitation, a systems failure, fire, building evacuation, natural or man-made disaster, act of God, armed conflict, act of terrorism, riot or labour disruption or any similar intervening circumstance) which is beyond the reasonable control of the Index Administrator and affects the Index or a Sub-Index or affects the ability of the Index Administrator to calculate or determine the Index.

Index has the meaning given to such term on page 2 of this Index Description.

Index Administrator has the meaning given to such term on page 2 of this Index Description.

Index Business Day means a day which is an Index Business Day (as such term is defined in the Sub-Index Description) in respect of the Sub-Index.

Index Commencement Date means 3 January 2008.

Index Currency means EUR.

Index Description has the meaning given to such term on page 2 of this Index Description.

Index Level means, in respect of an Index Business Day, an amount, expressed in the Index Currency, being the closing level of the Index in respect of such Index Business Day, as determined by the Index Administrator in accordance with Section 4(b) (*Index Calculation on each Index Business Day*).

Index Valuation Time means the time at which or in respect of which the Index Administrator calculates and publishes the official closing level of the Index.

Initial Index Level means 99.653433.

Initial Notional Holding means, in respect of the Sub-Index, the quotient of:

- (i) the Index Level in respect of the Index Commencement Day (as numerator); and
- and
- (ii) the Sub-Index Level in respect of the Index Commencement Day (as denominator).

Expressed as a formula:

$$U(I) = \frac{IL_{EUR}^{AC}(I)}{IL_{EUR}(I)}$$

Where:

$IL_{EUR}(I)$ means the Sub-Index Level in respect of the Index Commencement Date;

$IL_{EUR}^{AC}(I)$ means the Index Level in respect of the Index Commencement Date; and

$U(t)$ means the Initial Notional Holding in respect of the Sub-Index.

Initial Sub-Index Level means “Initial Index Level” in respect of the Sub-Index (as such term is defined in the Sub-Index Description in respect of such Sub-Index).

Notional Holding means, in respect of the Sub-Index and an Index Business Day:

- (i) if such Index Business Day is not a Rebalancing Day, the Notional Holding in respect of the Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day (or, if such immediately preceding Index Business Day falls on the Index Commencement Date, the Initial Notional Holding in respect of the Sub-Index); and
- (ii) if such Index Business Day falls on a Rebalancing Day, an amount determined by the Index Administrator as the quotient of:
 - (a) the Index Level in respect of such Index Business Day (as numerator); and
 - (b) the Sub-Index Level in respect of such Index Business Day (as denominator).

Expressed as formula:

$$U(t) = \frac{IL_{EUR}^{AC}(t)}{IL_{EUR}(t)}$$

Where:

$IL_{EUR}(t)$ means, in respect of an Index Business Day, the Sub-Index Level in respect of such Index Business Day;

$IL_{EUR}^{AC}(t)$ means, in respect of an Index Business Day, the Index Level in respect of such Index Business Day; and

$U(t)$ means, in respect of an Index Business Day, the Notional Holding in respect of the Sub-Index and such Index Business Day.

Processes means the processes and controls set out in Section 8 (*Input Data Management*) of the Overview (or any successor publication and/or section of such publication that addresses the input data management policy of the Index Administrator).

Rebalancing Day means the last Index Business Day of each calendar year from (but excluding) the Index Commencement Date.

Running Cost means 0.49 per cent. (expressed as 0.0049).

Sub-Index means the Deutsche Bank Commodity Fundamental Fair Value EUR ER Index as defined in the Sub-Index Description.

Sub-Index Description means the “Description of the Deutsche Bank Commodity Fundamental Fair Value EUR ER Index” as set out the Annex to this Index Description (as such may be amended, supplemented or restated from time to time).

Sub-Index Level means the “Index Level” in respect of the Sub-Index (as such term is defined in the Sub-Index Description in respect of such Sub-Index).

Successor Source means, in relation to any display page, other published source, information vendor or provider:

- (i) the successor display page, other published source, information vendor or provider that has been officially designated by the sponsor of the original page or source; or
- (ii) if the sponsor of the original page or source has not officially designated a successor display page, other published source, service or provider (as the case may be), the successor display page, other published source, service or provider, if any, designated by the relevant information vendor or provider (if different from such sponsor).

4. INDEX CALCULATION

(a) Index Calculation on the Index Commencement Date

The Index is deemed to have been established on the Index Commencement Date.

The Index Level in respect of the Index Commencement Date was equal to the Initial Index Level.

The Index has been calculated back to the Index Commencement Date.

(b) Index Calculation on each Index Business Day

The Index Level on each Index Business Day from (but excluding) the Index Commencement Date shall be an amount (in the Index Currency) calculated by the Index Administrator as the product of:

- (i) the sum of:
 - (a) the Index Level in respect of the Rebalancing Day immediately preceding such Index Business Day (or, if none, the Initial Index Level); and
 - (b) the product of:
 - (1) (x) the Sub-Index Level in respect of the Sub-Index in respect of such Index Business Day; minus
 - (y) the Sub-Index Level in respect of the Sub-Index in respect of the Rebalancing Day immediately preceding such Index Business Day (or, if none, the Initial Sub-Index Level); and
 - (2) the Notional Holding in respect of the Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day (or, if such immediately preceding Index Business Day falls on the Index Commencement Date, the Initial Notional Holding in respect of the Sub-Index); and
- (ii) (a) one; minus
- (b) the product of:
 - (1) the Running Cost; and
 - (2) the quotient of:
 - (x) the number of calendar days in the period commencing on (but excluding) the Rebalancing Day immediately preceding such Index Business Day (or, if none, the Index Commencement Date) and ending on (and including) such Index Business Day (as numerator); and
 - (y) 365 (as denominator).

Expressed as a formula:

$$IL_{EUR}^{AC}(t) = [IL_{EUR}^{AC}(r) + (IL_{EUR}(t) - IL_{EUR}(r)) * U(t - 1)] * \frac{\text{€}}{\text{€}} - RC * \frac{d(r,t)}{365}$$

Where:

d(r,t) means, in respect of an Index Business Day, the number of calendar days from (but excluding) the Rebalancing Day immediately preceding such Index Business Day (or, if none, the Index Commencement Date) to (and including) such Index Business Day;

IL_{EUR}(r) means, in respect of an Index Business Day and the Sub-Index, the Sub-Index Level in respect of the Sub-Index in respect of the Rebalancing Day immediately preceding such Index Business Day (or, if none, the Initial Sub-Index Level);

$IL_{EUR}(t)$	means, in respect of an Index Business Day and the Sub-Index, the Sub-Index Level in respect of the Sub-Index in respect of such Index Business Day;
$IL_{EUR}^{AC}(t)$	means, in respect of an Index Business Day, the Index Level in respect of the Rebalancing Day immediately preceding such Index Business Day (or, if none, the Initial Index Level);
$IL_{EUR}^{AC}(t)$	means, in respect of an Index Business Day, the Index Level in respect of such Index Business Day;
RC	means the Running Cost; and
$U(t-1)$	means, in respect of an Index Business Day and the Sub-Index, the Notional Holding of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day (or, if such immediately preceding Index Business Day falls on the Index Commencement Date, the Initial Notional Holdings in respect of the Sub-Index).

(c) Miscellaneous

The Index Level in respect of each Index Business Day shall be calculated to six decimal places with 0.0000005 being rounded upwards (such level being the **Calculated Index Level** in respect of such Index Business Day) and published to four decimal places with 0.00005 being rounded upwards, as set out in the section headed "Index Publication" below. The Index Administrator shall make available the Calculated Index Level in respect of each Index Business Day (including, for the avoidance of doubt, if requested, any historical Calculated Index Levels) on application to DBIQ at the Index Administrator's principal office in London for the time being at Winchester House, 1 Great Winchester Street, London EC2N 2DB.

The methodology described in this Section 4 (*Index Calculation*) is subject to the provisions set out in Section 6 (*Disruption Events*) and Section 7 (*Adjustment Provisions*).

5. Index Publication

(a) Availability of Index Levels and Adjustments

The Index Administrator will make available (a) the Index Level in respect of the Index in respect of each Index Business Day as soon as reasonably practicable after the Index Valuation Time on such Index Business Day and (b) details of any adjustments made to the Index, in each case, on application to DBIQ at the Index Administrator's principal office in London for the time being at Winchester House, 1 Great Winchester Street, London EC2N 2DB.

In addition, the Index Level and details of any changes to any Relevant Exchange and consequential changes as a result thereof will be available on the DBIQ Website and Bloomberg Page DBCFFVEN <Index> (or any Successor Sources that the Index Administrator shall elect from time to time).

(b) Corrections and/or Recalculations

In the event that any price or level published on any date which is utilised for any calculation or determination in respect of the Index is subsequently corrected and/or recalculated in accordance with its terms or description (as the case may be), or the Index Administrator identifies an error or omission in any of its calculations or determinations in respect of the Index, the Index Administrator may, in its sole discretion adjust or correct any relevant terms, calculations or determinations in respect of the Index to take into account such correction(s), recalculation(s), error(s) or omission(s) (as the case may be) but is not obliged to do so.

(c) Miscellaneous

Any publication described in this Section 5 (*Index Publication*) may be restricted by means determined as appropriate for such purpose by the Index Administrator in its sole and absolute discretion including, but not limited to, password protection on the DBIQ Website

restricting access to a limited set of persons in accordance with arrangements agreed between the Index Administrator and such persons.

The Index Administrator may, at any time and without notice, change with respect to the Index the place of publication of the Index Level.

The Index Administrator may, at any time and without notice, change the frequency of publication of the Index Level.

The Index Administrator accepts no legal liability to any person for publishing or not continuing to publish for any period of time any Index Level at any particular place or any particular time.

In the event of any ambiguity in, or dispute about the meaning of, any of the provisions of this Index Description, the Index Administrator shall, in its sole and absolute discretion, construe the relevant provision(s) in order to determine the correct interpretation thereof, and the decision of the Index Administrator shall be final.

6. DISRUPTION EVENTS

(a) General

Disruption Event means, in respect of the Index and an Index Business Day, an event that would require the Index Administrator to calculate the Index on an alternative basis were such event to occur or exist on such day, all as determined by the Index Administrator in its sole and absolute discretion.

Without limitation, the following may be a Disruption Event if so determined by the Index Administrator in its sole and absolute discretion:

- (i) **Sub-Index Disruption Event.** The Index Administrator determines that the Sub-Index Level in respect of the Sub-Index is not published within the scheduled or usual timeframe for publication in respect of an Index Business Day.

(b) Consequences of Disruption Events

If a Disruption Event in respect of the Index occurs or subsists on an Index Business Day, that in the determination of the Index Administrator prevents or otherwise affects its determinations with respect to the Index Level or any other relevant value that requires determination or calculation by the Index Administrator in relation to such Index Business Day, then:

- (i) first, the Index Administrator may make such adjustments and/or determinations in relation to the Index (including, but not limited to, this Index Description) and any relevant value as it may determine, in its sole and absolute discretion, appropriate to facilitate the calculation and publication of the Index Level in respect of such Index Business Day;
- (ii) secondly, if the Index Administrator determines that any such adjustment or determination referred to in sub-section (i) above cannot be made on such Index Business Day, then the Index Administrator may defer calculation and publication of the Index Level until the next Index Business Day on which the Index Administrator determines, in its sole and absolute discretion, that no Disruption Event exists in respect of the Index provided that where any such deferral of calculation and publication continues for a period of ten consecutive Index Business Days, then the Index Administrator may:
 - (a) calculate and publish the Index Level relating to each Index Business Day falling in or after such period having regard to the then prevailing market conditions, the last reported price, value, rate or level of any instrument relating to the Index and such other factor(s) and condition(s) that the Index Administrator considers relevant for the purpose of determining such Index Levels including, but not limited to, any modifications that the Index Administrator determines to be appropriate in relation to reconstitution relating to the Index; and/or

- (b) permanently cease to calculate and publish the relevant Index Level as of the later of (x) the date when such Disruption Event commenced or (y) the Index Business Day following the last Index Business Day for which the Index Administrator calculated and published the relevant Index Level in accordance with sub-section (i) above (if any) and, in each case, as applicable, such Index shall terminate.

(c) Force Majeure Event

If a Force Majeure Event occurs on an Index Business Day, the Index Administrator may, in its sole and absolute discretion:

- (i) make such determinations and/or adjustments to the terms contained in this Index Description as it considers appropriate to determine the relevant Index Level in respect of such Index Business Day; and/or
- (ii) defer publication of the relevant Index Level in respect of such Index Business Day until the next Index Business Day on which it determines that no Force Majeure Event exists; and/or
- (iii) permanently cancel publication of the relevant Index Level.

(d) Hedging Disruption Event

If the Index Administrator determines that it and/or any of its Affiliates would be unable, after using commercially reasonable efforts, to: (a) acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction(s) or asset(s) it deems necessary to hedge its position in relation to any securities issue, financial instrument or other relevant financial transaction relating to or calculated by reference to an Index; or (b) realise, recover or remit the proceeds of any such transaction(s) or asset(s) has occurred or exists on an Index Business Day, the Index Administrator may, in its sole and absolute discretion:

- (i) make such determinations and/or adjustments to the terms contained in this Index Description as it considers appropriate to determine the relevant Index Level in respect of such Index Business Day; and/or
- (ii) defer publication of the relevant Index Level in respect of such Index Business Day until the next Index Business Day on which it determines that no Hedging Disruption Event exists; and/or
- (iii) permanently cancel publication of the relevant Index Level.

(e) Overview

Any such adjustments and/or determinations or decisions to permanently cease to calculate and publish an Index Level in respect of the Index pursuant to sub-Sections 6(b), (c) or (d) shall be made by the Index Administrator as far as reasonably practicable in accordance with Section 10 (*Changes to and Retiring a Benchmark*) of the Overview.

7. ADJUSTMENT PROVISIONS

Change in methodology

In calculating and determining the value of the Index, the Index Administrator will, subject as provided below, employ the methodology described herein and its application of such methodology shall be conclusive and binding. While the Index Administrator currently employs the above described methodology to calculate the Index, no assurance can be given that market, regulatory, judicial, financial, fiscal or other circumstances (including, but not limited to, any changes to or any suspension or termination of any constituent of the Index or any other events affecting transactions on the same or similar terms to any described herein) will not arise that would, in the view of the Index Administrator, necessitate or make desirable a modification of or change to such methodology.

Accordingly:

- (i) The Index Administrator shall be entitled to make such modifications and/or changes as it deems appropriate, including (without limitation):

- (a) to correct any manifest error or proven error contained in the methodology described herein; and/or
 - (b) to cure, correct or supplement any defective provision contained in the methodology described herein; and/or
 - (c) if market, regulatory, juridical, financial, fiscal or other circumstances arise, and such circumstances would, in the determination of the Index Administrator, necessitate or make desirable such a modification or change of the methodology described herein (including, but without limitation, a change in the frequency of calculation of any Index Level) in order for the Index to continue being calculated and determined notwithstanding the relevant circumstances. In deciding what is necessary the Index Administrator will consider and/or take into account what the Index Administrator determines to be the intended strategy of the Index;
- (ii) Further, and without limitation to the above provisions, the Index Administrator shall be entitled to make such modifications and/or changes as it deems appropriate:
- (a) to preserve the intended strategy of the Index, where such modification and/or change is of a formal, minor or technical nature; and/or
 - (b) if market, regulatory, juridical, financial, fiscal or other circumstances arise, and in the determination of the Index Administrator, such modifications and/or changes would assist in maintaining the intended strategy of the Index and/or would ensure that the Index can continue to be calculated and determined by the Index Administrator in light of such circumstances.

In making such modifications however the Index Administrator will:

- (i) ensure that such modifications or changes pursuant to (i) or (ii) above will result in a methodology that is consistent in its intended commercial purpose with the methodology described in this Index Description; and
- (ii) limit any such modification or change to the terms of the Index and/or method of calculating the Index Level.

The Index Administrator may, in its discretion, at any time and without notice, terminate the calculation and publication of the Index pursuant to Section 10.2 (*Benchmark Retirement*) of the Overview.

The Overview sets out the process for making changes to its benchmarks as a general matter and the internal oversight and approval process that DBIQ will go through. It also sets out DBIQ's procedures for consulting on and notifying changes. Any such modification or change in methodology described in this Description shall be made in accordance with Section 10.1 (*Change to a Benchmark*) of the Overview.

Annex
Description of the Deutsche Bank Commodity Fundamental Fair Value EUR ER Index

Deutsche Bank



Description of the Deutsche Bank Commodity Fundamental Fair Value EUR ER Index™

Date: 12 June 2018

Version: 2

In the event of any inconsistency between the English language version of the text below and that which may be translated into any other language, the English language version shall prevail. Terms used herein have the meaning given to them in Section 3 (*Definitions*).

All determinations of the Index Administrator described herein shall be made according to the terms set out herein and, save for manifest error, shall be final and binding on all parties.

The Index Administrator is not obliged to enter into, or promote, transactions or investments that are linked to the Index.

Subject as provided by law, the Index Administrator is under no obligation to maintain or calculate the Index and may cancel or cease to calculate the Index at any time without notice.

The Index Administrator does not assume any obligation or duty to any party and under no circumstances does the Index Administrator assume any relationship of agency or trust or of a fiduciary nature for or with any party. Any calculations or determinations in respect of the Index or any part thereof shall be made by the Index Administrator acting reasonably and in good faith and shall (save in the case of manifest error) be final, conclusive and binding. The term "manifest error" as used herein shall mean an error that is plain and obvious and can be identified from the results of the calculation or determination itself without: (i) recourse to any underlying data; or (ii) any application or re-application of any formulae.

The Index Administrator may delegate and/or transfer any of its obligations and/or functions to one or more third parties as it deems appropriate from time to time.

The Index Administrator makes no express or implied representations or warranties as to (a) the advisability of purchasing or assuming any risk in connection with any transaction which references or is otherwise linked to this Index, (b) the levels at which the Index stands at any particular time on any particular date, (c) the results to be obtained by any party from the use of the Index or any data included in it for the purposes of issuing securities or carrying out any financial transaction or (d) any other matter. Calculations may be based on information obtained from various publicly available sources. The Index Administrator has relied on these sources and has not independently verified the information extracted from these sources and accepts no responsibility or liability in respect thereof. If there is a calculation error the Index Administrator may restate the Index Level.

Without limiting any of the foregoing, in no event shall the Index Administrator have any liability (whether in negligence or otherwise) to any person in connection with such person's unauthorised use of the Index. "Unauthorised use" shall be construed as any use of the Index except where such use is pursuant to a transaction between a party and Deutsche Bank AG in respect of the Index.

Without limiting any of the foregoing, where use of the Index by a party is pursuant to a transaction between that party and Deutsche Bank AG, in no event shall the Index Administrator have any liability to any person except where such liability arises from the Index Administrator's wilful default, negligence resulting from a breach of material obligations only, or gross negligence in all other respects.

Nothing herein shall be taken to exclude any liability for fraud on the part of the Index Administrator.

Without prejudice to the foregoing, in no event shall the Index Administrator have any liability for any indirect, special, punitive or consequential damages (provided that any such damage is not reasonably foreseeable) even if notified of the possibility of such damages.

Conflicts of Interest

Conflicts of interest may exist or arise between the Index Administrator and Deutsche Bank entities acting in other capacities, including as Administrator for the Index or as counterparty to a transaction or as contributor of forecasts that feed into the

calculation of the index. Each relevant Deutsche Bank entity will pursue actions and take steps that it deems appropriate to protect its own interests without regard to the consequences for investors in respect of any investment or instrument linked or relating to the Index or otherwise.

Deutsche Bank entities shall be entitled to receive fees or other payments pursuant to investments or instruments linked or relating to the Index or otherwise and to exercise all rights, including rights of termination or resignations, which they may have, even though doing so may have a detrimental effect on investors in any investment or instrument linked or relating to the Index.

Trading and other transactions by Deutsche Bank AG or its affiliates

Deutsche Bank AG and/or its affiliates may hedge its obligations under any relevant instruments or financial products linked to the Index by purchasing or selling securities and other assets, or listed or over-the-counter options, futures, swaps or other derivative financial instruments underlying or linked to the Index. Although they are not expected to, any of these hedging activities may adversely affect the value of such assets, and therefore the Index Level or the value of any relevant instruments or financial products linked to the returns from these hedging activities while the level of the Index and/or relevant instruments or financial products linked to the Index declines.

Deutsche Bank AG and/or its affiliates may also engage in trading in securities and other assets, or listed or over-the-counter options, futures, swaps or other derivative financial instruments underlying or linked to the Index on a regular basis as part of their general broker-dealer and other businesses, for proprietary accounts, for other accounts under management or to facilitate transactions for customers. Any of these activities could adversely affect the value of such assets, and therefore the Index Level or the value of any relevant instruments or financial products linked to the Index. With respect to any of these activities, neither Deutsche Bank AG nor any of its affiliates has any obligation to take the level of the Index into consideration at any time.

This document is referred to as the **Index Description** and consists of the following Sections:

Section:	Page
1. Introduction to the Index	3
2. Index Risk Factors	4
3. Definitions	6
4. Index Calculation	8
5. Index Publication	9
6. Disruption Events	10
7. Adjustment Provisions	11

The Deutsche Bank Commodity Fundamental Fair Value EUR ER Index (*Bloomberg Code: DBCFFVEE <Index>*) (the **Index**) is a Deutsche Bank AG proprietary index. The Index is the intellectual property of Deutsche Bank AG (**Deutsche Bank AG** or the **Index Owner**, which expression shall include any successor in such capacity). The Index Owner owns the copyright and all other intellectual property rights in the Index and this Index Description. Any use of these intellectual property rights must be with the prior written consent of the Index Owner.

The Index will be governed by the Index Administrator (as defined below). The initial Index Administrator shall be Deutsche Bank AG operating through Deutsche Bank Index Quant (**DBIQ**), a research unit within Deutsche Bank AG via its internal processes and the **Index Administrator** shall mean Deutsche Bank AG acting in such capacity or any successor thereto. The Index Administrator controls the creation and operation of the Index

administrative process, including all stages and processes involved in the production and dissemination of the Index. Notwithstanding that the Index relies on information from third party sources, the Index Administrator has primary responsibility for all aspects of the Index administration and determination process.

The Index Administrator has implemented and maintains the DBIQ User Guidance and Administrator Handbook Overview (the **Overview**), which sets out a summary of the policies, procedures and controls implemented by the management of the Index Administrator to promote sound business practices for the lifecycle management of the Index Owner's proprietary benchmarks by the Index Administrator. The Overview also includes the Index Administrator's policy related to quality of benchmarks and input data management. Additional issues related to governance, controls, benchmark classification and risk controls, restatement and calculation error management, periodic reviews and conflicts of interest are also addressed. The Overview does not form part of this Index Description or of any document into which this Index Description may be incorporated.

1. INTRODUCTION TO THE INDEX

This section summarises a number of features of the Index. This section should be read as a summary introduction to the Index Description but is no substitute for reviewing the Index Description in full. Capitalised terms not otherwise defined shall have the meanings given in Section 3 (Definitions).

The Index to which this Index Description relates is owned by the Index Owner and is administered by the Index Administrator. Certain key features of the Index are as follows:

- The Index tracks foreign exchange markets and a rules-based strategy notionally investing in a commodity index (the **Sub-Index**) which tracks a rules-based strategy notionally investing in a weighted basket of commodity indices which in turn track a selection of single commodity sub-indices taking a nominal long or short position based on the relative undervaluation or overvaluation of the futures' prices.
- The Index Level on any day incorporates a foreign exchange rate, which is based on the change in the United States dollars/euro spot foreign exchange rate between the previous Rebalancing Day and the relevant day.
- The Index Level will, subject as provided below, be calculated in respect of each Index Business Day by the Index Administrator and may be used in connection with one or more financial products (each a **Financial Product**) relating to the Index. The Financial Products may be issued or entered into by Deutsche Bank AG, London Branch or other financial product providers. Each investor in relation to Financial Products is referred to as a **Financial Product Investor**.
- Although the Index Administrator will obtain information for inclusion in or for use in the calculation of the Index from sources which the Index Administrator considers reliable, the Index Administrator will not independently verify such information and does not guarantee the accuracy and/or the completeness of the Index or any data included in the Index. The Index Administrator shall not be liable (whether in negligence or otherwise) to any person for any error in the Index and the Index Administrator is under no obligation to advise any person of any error therein.
- All determinations referred to below will be made by the Index Administrator by reference to such factors as it deems appropriate and such determinations will, save for manifest error, be binding on all parties.
- The Index is "notional" in nature. This means that the Index Administrator is not obliged to enter into transactions in respect of each commodity future in order to calculate the Index.
- The Index contains Disruption Event provisions which apply when events require the Index Administrator to calculate the Index on an alternative basis were such event to occur or exist on such day, as described in Section 6 (*Disruption Events*) below. If a Disruption Event occurs, the Index Administrator may make such adjustments and/or determinations in relation to the Index as it may determine, in its sole and absolute discretion, appropriate to facilitate the calculation and publication of the Index Level

or, if such adjustment or calculation cannot be made, defer calculation and publication of the Index Level and, in some cases, permanently cease to calculate the Index. These events may have an adverse effect on Financial Product Investors. Index Levels which are calculated following any such delay may give different economic results in relation to the Financial Products than the Index Levels which would have prevailed but for such delay. If the Index is cancelled or adjusted, this may lead to the calculation agent in respect of a Financial Product taking action under provisions of the Financial Product which may have an adverse effect on Financial Product Investors.

- The Index contains Adjustment Event provisions which entitle the Index Administrator to make such modifications and/or changes in its reasonable discretion deems appropriate, as described in Section 7 (*Adjustment Provisions*) below. If market, regulatory, judicial, financial, fiscal or other circumstances arise that would, in the determination of the Index Administrator, necessitate or make desirable a modification or change to this Index Description in order for the Index to continue to be calculated and determined notwithstanding the relevant circumstances, the Index Administrator may make such modifications or changes.
- This Section 1 (*Introduction to the Indices*) is subject to and qualified by the remainder of this Index Description.
- The Index Level will be expressed in the Index Currency.

2. INDEX RISK FACTORS

The risk factors set out in this Section 2 (*Index Risk Factors*) are not a comprehensive list of all risks that might have an adverse effect on the value of the Index. When considering an investment in a Financial Product, prospective Financial Product Investors should review carefully the whole of the Index Description and form their own decisions as to risks associated with the Index Administrator and the Index.

Risks relating to the Index

Volatility of Foreign Currency Markets: Foreign currency markets may be highly volatile. Significant changes, including changes in liquidity and prices, can occur in such markets within very short periods of time. Foreign currency rate risks include, but are not limited to, convertibility risk and market volatility and potential interference by foreign governments through regulation of local markets, foreign investment or particular transactions in foreign currency.

Volatility of Commodities: Trading in commodities is speculative and may be extremely volatile. Commodity prices are affected by a variety of factors that are unpredictable including, for example, changes in supply and demand relationships, weather patterns and extreme weather conditions, environmental disasters, governmental programmes and policies, national and international political, military, terrorist and economic events, fiscal, monetary and exchange control programmes and changes in interest and exchange rates. Commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, the participation of speculators and government regulation and intervention. These circumstances could also adversely affect prices of the relevant commodity. Therefore, commodity prices may be more volatile than other asset classes.

Commodity Futures: The price of a futures contract on a commodity will generally be at a premium or at a discount to the spot price of the underlying commodity. Accordingly, products linked to commodity futures contracts may provide a different return than products linked to the relevant physical commodity.

Index Rebalancing: The Index is rebalanced and the weight assigned to the Sub-Index is adjusted with effect from each Rebalancing Day and remains fixed until the next Rebalancing Day. Therefore, any sudden changes (positive or negative) to a Sub-Index and the trend in respect of the performance of each Sub-Index in between Rebalancing Days will not be taken into consideration in calculating the Index Level until the next Rebalancing Day.

Index Administrator's Powers: The Index Administrator has a number of discretions in relation to an Index, which always have to be exercised in good faith and in a commercially

reasonable manner. Nevertheless the exercise of these discretions may have a significant effect on Financial Products. In particular:

- If a Disruption Event occurs, the Index Administrator may make such adjustments and/or determinations in relation to the Index as it may determine, in its sole and absolute discretion, appropriate to facilitate the calculation and publication of the Index Level or postpone or cancel and permanently cease to calculate an Index. A Disruption Event may occur, amongst other things, as a result of the failure of trading to commence, or the permanent discontinuation of trading in any relevant futures contract.
- If market, regulatory, judicial, financial, fiscal or other circumstances arise that would necessitate or make desirable a modification or change to this Index Description, the Index Administrator may make such modifications or changes.

General risks

Multiple roles of Deutsche Bank Entities: Conflicts of interest may exist between the Index Owner, initial Index Administrator and Deutsche Bank AG, London Branch and its affiliates (each a **Deutsche Bank Entity**).

A Deutsche Bank Entity may also act as the issuer of, or an obligor under, a Financial Product and as a dealer, calculation agent or hedge provider in relation to a Financial Product. Various conflicts of interest might exist or arise as a result of these different roles as well as from the overall activities of Deutsche Bank Entities. Deutsche Bank AG has a regulatory obligation to take reasonable steps to manage such conflicts fairly. Such reasonable steps include information walls being maintained between the personnel of Deutsche Bank Entities involved in different roles. However, as with any set of systems and controls there is a risk that such information walls might not be effective in all cases.

No disclosure of information: Deutsche Bank Entities may be in possession at any time of information in relation to the Index which may not be available to Financial Product Investors. There is no obligation on any Deutsche Bank Entity to disclose to Financial Product Investors any such information.

Fees: Deutsche Bank Entities shall be entitled to receive fees or other payments and exercise all rights, including rights of termination or resignation, which they may have, even though this may have a detrimental effect on the Index and Financial Products.

Hedging Arrangements: The Index is calculated as a "notional" index. This means that the Index reflects the performance of notional commodity futures contracts as further outlined and detailed in each Sub-Index, but there is no requirement for the Index Administrator to enter into commodity futures contracts in relation to such commodity futures contracts in order to calculate the Index. Deutsche Bank Entities may enter into commodity futures contracts in order to meet obligations in respect of Financial Products or for any other purpose, but Deutsche Bank Entities are not required to do this. If they do, Deutsche Bank Entities will have certain rights pursuant to such futures contracts and will pursue actions and take steps that they deem appropriate to protect their own interests.

Political and Economic Factors: Commodity futures may be influenced by a number of circumstances, including but not limited to political events, general economic conditions, government intervention, changes in balances of payments and trade, domestic and international rates of inflation, international trade restrictions and currency devaluations. Any such circumstance (or a combination of them) may cause unexpected volatility or illiquidity in the commodity futures markets. This may have an adverse effect on Index Levels which may in turn have an adverse effect on the performance of Financial Products.

Future Regulatory Change in respect of commodity futures: Legal and regulatory changes could adversely affect commodity futures. In addition, many governmental agencies and regulatory organisations are authorised to take extraordinary actions in the event of market emergencies. The effect of any future legal or regulatory change on commodity futures is not possible to predict, but could be substantial and adverse.

Future Regulatory Change in respect of indices: Legal and regulatory changes could adversely affect indices including the Index or any Sub-Index. The effect of any future legal

or regulatory change on indices may not be possible to predict, but could be substantial and adverse.

3. DEFINITIONS

2006 ISDA Definitions means the 2006 ISDA Definitions published by the International Swap and Derivatives Association, Inc.

Adjusted Sub-Index Return means, in respect of an Index Business Day and the Sub-Index, an amount determined by the Index Administrator as

- (i) the quotient of:
 - (a) the Sub-Index Level in respect of the Sub-Index in respect of such Index Business Day (as numerator); and
 - (b) the Sub-Index Level in respect of the Sub-Index in respect of the Rebalancing Day immediately preceding such Index Business Day (or, if none, the Initial Sub-Index Level) (as denominator); minus
- (ii) one.

Expressed as a formula:

$$RetIL(t) = \frac{IL(t)}{IL(r)} - 1$$

Where:

IL(r) means, in respect of an Index Business Day and the Sub-Index, the Sub-Index Level in respect of the Sub-Index in respect of the Rebalancing Day immediately preceding such Index Business Day (or, if none, the Initial Sub-Index Level);

IL(t) means, in respect of an Index Business Day and the Sub-Index, the Sub-Index Level in respect of the Sub-Index in respect of the in respect of such Index Business Day; and

RetIL(t) means, in respect of an Index Business Day and the Sub-Index, the Adjusted Sub-Index Return in respect of the Sub-Index and such Index Business Day.

Affiliate means, in respect of the Index Administrator, any entity controlled, directly or indirectly, by the Index Administrator, any entity that controls, directly or indirectly, the Index Administrator or any entity directly or indirectly under common control with the Index Administrator. For this purpose, **control** of any entity or person means ownership of a majority of the voting power of the entity or person.

Bloomberg means Bloomberg L.P. or any successor thereto.

DBIQ Website means <http://www.index.db.com>.

EUR means the lawful single currency of the member states of the European Union that have adopted and continue to retain a common single currency through monetary union in accordance with European Treaty law (as amended from time to time).

Force Majeure Event means, in respect of the Index, an event or circumstance (including, without limitation, a systems failure, fire, building evacuation, natural or man-made disaster, act of God, armed conflict, act of terrorism, riot or labour disruption or any similar intervening circumstance) which is beyond the reasonable control of the Index Administrator and affects the Index or a Sub-Index or affects the ability of the Index Administrator to calculate or determine the Index.

FX Return means, in respect of an Index Business Day, an amount determined by the Index Administrator as:

- (i) the quotient of:
 - (a) the Spot FX Rate in respect of such Index Business Day (as numerator); and
 - (b) the Spot FX Rate in respect of the Rebalancing Day immediately preceding such Index Business Day (or, if none, the Spot FX Rate in respect of the Index Commencement Date) (as denominator); minus
- (ii) one.

Expressed as a formula:

$$FXr(t) = \frac{FX(t)}{FX(r)} - 1$$

Where:

FX(r) means, in respect of an Index Business Day, the Spot FX Rate in respect of the Rebalancing Day immediately preceding such Index Business Day (or, if none, the Spot FX Rate in respect of the Index Commencement Date);

FX(t) means, in respect of an Index Business Day, the Spot FX Rate in respect of such Index Business Day;

FXr(t) means, in respect of an Index Business Day, the FX Return in respect of such Index Business Day;

Index has the meaning given to such term on page 2 of this Index Description.

Index Administrator has the meaning given to such term on page 2 of this Index Description.

Index Business Day means a day which is an Index Business Day (as such term is defined in the Sub-Index Description) in respect of the Sub-Index.

Index Commencement Date means 3 January 2008.

Index Currency means EUR.

Index Description has the meaning given to such term on page 2 of this Index Description.

Index Level means, in respect of an Index Business Day, an amount, expressed in the Index Currency, being the closing level of the Index in respect of such Index Business Day, as determined by the Index Administrator in accordance with Section 4(b) (*Index Calculation on each Index Business Day*).

Index Valuation Time means the time at which or in respect of which the Index Administrator calculates and publishes the official closing level of the Index.

Initial Index Level means 100.008508.

Initial Sub-Index Level means "Initial Index Level" in respect of the Sub-Index (as such term is defined in the Sub-Index Description in respect of such Sub-Index).

Price Source means Reuters (or any Successor Source).

Processes means the processes and controls set out in Section 8 (*Input Data Management*) of the Overview (or any successor publication and/or section of such publication that addresses the input data management policy of the Index Administrator).

Rebalancing Day means the last Index Business Day of each month from (but excluding) the Index Commencement Date.

Reuters means the Thomson Reuters Corporation or any successor thereto.

Spot FX Eligible Screen means the page USDEURFIX=WM published by the Price Source.

Spot FX Rate means, in respect of an Index Business Day, the foreign exchange rate for such day at the Spot FX Valuation Time, expressed as the number of units of EUR per unit of

USD, determined by the Index Administrator in respect of the Spot FX Valuation Time on the relevant day by reference to the Spot FX Eligible Screen. If such source is unavailable at the relevant time, the Spot FX Rate shall be the rate of exchange which the Index Administrator determines would have prevailed but for such non availability by reference to such sources as the Index Administrator deems appropriate.

Spot FX Valuation Time means on or about 4.00 pm London time.

Sub-Index means the Deutsche Bank Commodity Fundamental Fair Value USD ER Index as defined in the Sub-Index Description.

Sub-Index Description means the “Description of the Deutsche Bank Commodity Fundamental Fair Value USD ER Index” as set out the Annex to this Index Description (as such may be amended, supplemented or restated from time to time).

Sub-Index Level means the “Index Level” in respect of the Sub-Index (as such term is defined in the Sub-Index Description in respect of such Sub-Index).

Successor Source means, in relation to any display page, other published source, information vendor or provider:

- (i) the successor display page, other published course, information vendor or provider that has been officially designated by the sponsor of the original page or source; or
- (ii) if the sponsor of the original page or source has not officially designated a successor display page, other published source, service or provider (as the case may be), the successor display page, other published source, service or provider, if any, designated by the relevant information vendor or provider (if different from such sponsor).

USD means United States dollars.

4. INDEX CALCULATION

(a) Index Calculation on the Index Commencement Date

The Index is deemed to have been established on the Index Commencement Date.

The Index Level in respect of the Index Commencement Date was equal to the Initial Index Level.

The Index has been calculated back to the Index Commencement Date.

(b) Index Calculation on each Index Business Day

The Index Level on each Index Business Day from (but excluding) the Index Commencement Date shall be an amount (in the Index Currency) calculated by the Index Administrator as the product of:

- (i) the sum of:
 - (a) one;
 - (b) the Adjusted Sub-Index Return in respect of the Sub-Index and such Index Business Day
 - (c) the product of:
 - (1) the Adjusted Sub-Index Return in respect of the Sub-Index and such Index Business Day; and
 - (2) the FX Return in respect of such Index Business Day; and
- (ii) the Index Level in respect of the Rebalancing Day immediately preceding such Index Business Day (or, if none, the Initial Index Level).

Expressed as a formula:

$$IL_{EUR}(t) = (1 + Re tIL(t) + Re tIL(t) * FXr(t)) * IL_{EUR}(r)$$

Where:

<i>FXr(t)</i>	means, in respect of an Index Business Day, the FX Return in respect of such Index Business Day;
<i>IL_{EUR}(t)</i>	means, in respect of an Index Business Day, the Index Level in respect of the Rebalancing Day immediately preceding such Index Business Day (or, if none, the Initial Index Level);
<i>IL_{EUR}(t)</i>	means, in respect of an Index Business Day, the Index Level in respect of such Index Business Day; and
<i>RetIL(t)</i>	means, in respect of an Index Business Day and the Sub-Index, the Adjusted Sub-Index Return in respect of the Sub-Index in respect of such Index Business Day.

(c) Miscellaneous

The Index Level in respect of each Index Business Day shall be calculated to six decimal places with 0.0000005 being rounded upwards (such level being the **Calculated Index Level** in respect of such Index Business Day) and published to four decimal places with 0.00005 being rounded upwards, as set out in the section headed "Index Publication" below. The Index Administrator shall make available the Calculated Index Level in respect of each Index Business Day (including, for the avoidance of doubt, if requested, any historical Calculated Index Levels) on application to DBIQ at the Index Administrator's principal office in London for the time being at Winchester House, 1 Great Winchester Street, London EC2N 2DB.

The methodology described in this Section 4 (*Index Calculation*) is subject to the provisions set out in Section 6 (*Disruption Events*) and Section 7 (*Adjustment Provisions*).

5. Index Publication

(a) Availability of Index Levels and Adjustments

The Index Administrator will make available (a) the Index Level in respect of the Index in respect of each Index Business Day as soon as reasonably practicable after the Index Valuation Time on such Index Business Day and (b) details of any adjustments made to the Index, in each case, on application to DBIQ at the Index Administrator's principal office in London for the time being at Winchester House, 1 Great Winchester Street, London EC2N 2DB.

In addition, the Index Level and details of any changes to any Relevant Exchange and consequential changes as a result thereof will be available on the DBIQ Website and Bloomberg Page DBCFFVEE <Index> (or any Successor Sources that the Index Administrator shall elect from time to time).

(b) Corrections and/or Recalculations

In the event that any price or level published on any date which is utilised for any calculation or determination in respect of the Index is subsequently corrected and/or recalculated in accordance with its terms or description (as the case may be), or the Index Administrator identifies an error or omission in any of its calculations or determinations in respect of the Index, the Index Administrator may, in its sole discretion adjust or correct any relevant terms, calculations or determinations in respect of the Index to take into account such correction(s), recalculation(s), error(s) or omission(s) (as the case may be) but is not obliged to do so.

(c) Miscellaneous

Any publication described in this Section 5 (*Index Publication*) may be restricted by means determined as appropriate for such purpose by the Index Administrator in its sole and absolute discretion including, but not limited to, password protection on the DBIQ Website restricting access to a limited set of persons in accordance with arrangements agreed between the Index Administrator and such persons.

The Index Administrator may, at any time and without notice, change with respect to the Index the place of publication of the Index Level.

The Index Administrator may, at any time and without notice, change the frequency of publication of the Index Level.

The Index Administrator accepts no legal liability to any person for publishing or not continuing to publish for any period of time any Index Level at any particular place or any particular time.

In the event of any ambiguity in, or dispute about the meaning of, any of the provisions of this Index Description, the Index Administrator shall, in its sole and absolute discretion, construe the relevant provision(s) in order to determine the correct interpretation thereof, and the decision of the Index Administrator shall be final.

6. DISRUPTION EVENTS

(a) General

Disruption Event means, in respect of the Index and an Index Business Day, an event that would require the Index Administrator to calculate the Index on an alternative basis were such event to occur or exist on such day, all as determined by the Index Administrator in its sole and absolute discretion.

Without limitation, the following may be a Disruption Event if so determined by the Index Administrator in its sole and absolute discretion:

- (i) **Sub-Index Disruption Event.** The Index Administrator determines that a Sub-Index Level in respect of a Sub-Index is not published within the scheduled or usual timeframe for publication in respect of an Index Business Day.
- (ii) **Price Source Disruption:**
 - (a) any Price Source is temporarily or permanently discontinued, unavailable or not announced or published thereby preventing or restricting the availability of the information necessary for determining the Index; or
 - (b) following the application of the Processes in relation to any data obtained from a Price Source, the Index Administrator determines in good faith and a commercially reasonable manner that such data does not accurately and reliably represent the interest purported to be measured by that data.

(b) Consequences of Disruption Events

If a Disruption Event in respect of the Index occurs or subsists on an Index Business Day, that in the determination of the Index Administrator prevents or otherwise affects its determinations with respect to the Index Level or any other relevant value that requires determination or calculation by the Index Administrator in relation to such Index Business Day, then:

- (i) first, the Index Administrator may make such adjustments and/or determinations in relation to the Index (including, but not limited to, this Index Description) and any relevant value as it may determine, in its sole and absolute discretion, appropriate to facilitate the calculation and publication of the Index Level in respect of such Index Business Day;
- (ii) secondly, if the Index Administrator determines that any such adjustment or determination referred to in sub-section (i) above cannot be made on such Index Business Day, then the Index Administrator may defer calculation and publication of the Index Level until the next Index Business Day on which the Index Administrator determines, in its sole and absolute discretion, that no Disruption Event exists in respect of the Index provided that where any such deferral of calculation and publication continues for a period of ten consecutive Index Business Days, then the Index Administrator may:
 - (a) calculate and publish the Index Level relating to each Index Business Day falling in or after such period having regard to the then prevailing market conditions, the last reported price, value, rate or level of any instrument relating to the Index and such other factor(s) and condition(s) that the Index Administrator considers relevant for the purpose of determining such Index

Levels including, but not limited to, any modifications that the Index Administrator determines to be appropriate in relation to reconstitution relating to the Index; and/or

- (b) permanently cease to calculate and publish the relevant Index Level as of the later of (x) the date when such Disruption Event commenced or (y) the Index Business Day following the last Index Business Day for which the Index Administrator calculated and published the relevant Index Level in accordance with sub-section (i) above (if any) and, in each case, as applicable, such Index shall terminate.

(c) Force Majeure Event

If a Force Majeure Event occurs on an Index Business Day, the Index Administrator may, in its sole and absolute discretion:

- (i) make such determinations and/or adjustments to the terms contained in this Index Description as it considers appropriate to determine the relevant Index Level in respect of such Index Business Day; and/or
- (ii) defer publication of the relevant Index Level in respect of such Index Business Day until the next Index Business Day on which it determines that no Force Majeure Event exists; and/or
- (iii) permanently cancel publication of the relevant Index Level.

(d) Hedging Disruption Event

If the Index Administrator determines that it and/or any of its Affiliates would be unable, after using commercially reasonable efforts, to: (a) acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction(s) or asset(s) it deems necessary to hedge its position in relation to any securities issue, financial instrument or other relevant financial transaction relating to or calculated by reference to an Index; or (b) realise, recover or remit the proceeds of any such transaction(s) or asset(s) has occurred or exists on an Index Business Day, the Index Administrator may, in its sole and absolute discretion:

- (i) make such determinations and/or adjustments to the terms contained in this Index Description as it considers appropriate to determine the relevant Index Level in respect of such Index Business Day; and/or
- (ii) defer publication of the relevant Index Level in respect of such Index Business Day until the next Index Business Day on which it determines that no Hedging Disruption Event exists; and/or
- (iii) permanently cancel publication of the relevant Index Level.

(e) Overview

Any such adjustments and/or determinations or decisions to permanently cease to calculate and publish an Index Level in respect of the Index pursuant to sub-Sections 6(b), (c) or (d) shall be made by the Index Administrator as far as reasonably practicable in accordance with Section 10 (*Changes to and Retiring a Benchmark*) of the Overview.

7. ADJUSTMENT PROVISIONS

Change in methodology

In calculating and determining the value of the Index, the Index Administrator will, subject as provided below, employ the methodology described herein and its application of such methodology shall be conclusive and binding. While the Index Administrator currently employs the above described methodology to calculate the Index, no assurance can be given that market, regulatory, judicial, financial, fiscal or other circumstances (including, but not limited to, any changes to or any suspension or termination of any constituent of the Index or any other events affecting transactions on the same or similar terms to any described herein) will not arise that would, in the view of the Index Administrator, necessitate or make desirable a modification of or change to such methodology.

Accordingly:

- (i) The Index Administrator shall be entitled to make such modifications and/or changes as it deems appropriate, including (without limitation):
 - (a) to correct any manifest error or proven error contained in the methodology described herein; and/or
 - (b) to cure, correct or supplement any defective provision contained in the methodology described herein; and/or
 - (c) if market, regulatory, juridical, financial, fiscal or other circumstances arise, and such circumstances would, in the determination of the Index Administrator, necessitate or make desirable such a modification or change of the methodology described herein (including, but without limitation, a change in the frequency of calculation of any Index Level) in order for the Index to continue being calculated and determined notwithstanding the relevant circumstances. In deciding what is necessary the Index Administrator will consider and/or take into account what the Index Administrator determines to be the intended strategy of the Index;
- (ii) Further, and without limitation to the above provisions, the Index Administrator shall be entitled to make such modifications and/or changes as it deems appropriate:
 - (a) to preserve the intended strategy of the Index, where such modification and/or change is of a formal, minor or technical nature; and/or
 - (b) if market, regulatory, juridical, financial, fiscal or other circumstances arise, and in the determination of the Index Administrator, such modifications and/or changes would assist in maintaining the intended strategy of the Index and/or would ensure that the Index can continue to be calculated and determined by the Index Administrator in light of such circumstances.

In making such modifications however the Index Administrator will:

- (i) ensure that such modifications or changes pursuant to (i) or (ii) above will result in a methodology that is consistent in its intended commercial purpose with the methodology described in this Index Description; and
- (ii) limit any such modification or change to the terms of the Index and/or method of calculating the Index Level.

The Index Administrator may, in its discretion, at any time and without notice, terminate the calculation and publication of the Index pursuant to Section 10.2 (*Benchmark Retirement*) of the Overview.

The Overview sets out the process for making changes to its benchmarks as a general matter and the internal oversight and approval process that DBIQ will go through. It also sets out DBIQ's procedures for consulting on and notifying changes. Any such modification or change in methodology described in this Description shall be made in accordance with Section 10.1 (*Change to a Benchmark*) of the Overview.

Annex
Description of the Deutsche Bank Commodity Fundamental Fair Value USD ER Index

Deutsche Bank



Description of the Deutsche Bank Commodity Fundamental Fair Value USD ER Index™

Date: 12 June 2018

Version: 2

In the event of any inconsistency between the English language version of the text below and that which may be translated into any other language, the English language version shall prevail. Terms used herein have the meaning given to them in Section 3 (*Definitions*).

All determinations of the Index Administrator described herein shall be made according to the terms set out herein and, save for manifest error, shall be final and binding on all parties.

The Index Administrator is not obliged to enter into, or promote, transactions or investments that are linked to the Index.

Subject as provided by law, the Index Administrator is under no obligation to maintain or calculate the Index and may cancel or cease to calculate the Index at any time without notice.

The Index Administrator does not assume any obligation or duty to any party and under no circumstances does the Index Administrator assume any relationship of agency or trust or of a fiduciary nature for or with any party. Any calculations or determinations in respect of the Index or any part thereof shall be made by the Index Administrator acting reasonably and in good faith and shall (save in the case of manifest error) be final, conclusive and binding. The term "manifest error" as used herein shall mean an error that is plain and obvious and can be identified from the results of the calculation or determination itself without: (i) recourse to any underlying data; or (ii) any application or re-application of any formulae.

The Index Administrator may delegate and/or transfer any of its obligations and/or functions to one or more third parties as it deems appropriate from time to time.

The Index Administrator makes no express or implied representations or warranties as to (a) the advisability of purchasing or assuming any risk in connection with any transaction which references or is otherwise linked to this Index, (b) the levels at which the Index stands at any particular time on any particular date, (c) the results to be obtained by any party from the use of the Index or any data included in it for the purposes of issuing securities or carrying out any financial transaction or (d) any other matter. Calculations may be based on information obtained from various publicly available sources. The Index Administrator has relied on these sources and has not independently verified the information extracted from these sources and accepts no responsibility or liability in respect thereof. If there is a calculation error the Index Administrator may restate the Index Level.

Without limiting any of the foregoing, in no event shall the Index Administrator have any liability (whether in negligence or otherwise) to any person in connection with such person's unauthorised use of the Index. "Unauthorised use" shall be construed as any use of the Index except where such use is pursuant to a transaction between a party and Deutsche Bank AG in respect of the Index.

Without limiting any of the foregoing, where use of the Index by a party is pursuant to a transaction between that party and Deutsche Bank AG, in no event shall the Index Administrator have any liability to any person except where such liability arises from the Index Administrator's wilful default, negligence resulting from a breach of material obligations only, or gross negligence in all other respects.

Nothing herein shall be taken to exclude any liability for fraud on the part of the Index Administrator.

Without prejudice to the foregoing, in no event shall the Index Administrator have any liability for any indirect, special, punitive or consequential damages (provided that any such damage is not reasonably foreseeable) even if notified of the possibility of such damages.

Conflicts of Interest

Conflicts of interest may exist or arise between the Index Administrator and Deutsche Bank entities acting in other capacities, including as Administrator for the Index or as counterparty to a transaction or as contributor of forecasts that feed into the

calculation of the index. Each relevant Deutsche Bank entity will pursue actions and take steps that it deems appropriate to protect its own interests without regard to the consequences for investors in respect of any investment or instrument linked or relating to the Index or otherwise.

Deutsche Bank entities shall be entitled to receive fees or other payments pursuant to investments or instruments linked or relating to the Index or otherwise and to exercise all rights, including rights of termination or resignations, which they may have, even though doing so may have a detrimental effect on investors in any investment or instrument linked or relating to the Index.

Trading and other transactions by Deutsche Bank AG or its affiliates

Deutsche Bank AG and/or its affiliates may hedge its obligations under any relevant instruments or financial products linked to the Index by purchasing or selling securities and other assets, or listed or over-the-counter options, futures, swaps or other derivative financial instruments underlying or linked to the Index. Although they are not expected to, any of these hedging activities may adversely affect the value of such assets, and therefore the Index Level or the value of any relevant instruments or financial products linked to the returns from these hedging activities while the level of the Index and/or relevant instruments or financial products linked to the Index declines.

Deutsche Bank AG and/or its affiliates may also engage in trading in securities and other assets, or listed or over-the-counter options, futures, swaps or other derivative financial instruments underlying or linked to the Index on a regular basis as part of their general broker-dealer and other businesses, for proprietary accounts, for other accounts under management or to facilitate transactions for customers. Any of these activities could adversely affect the value of such assets, and therefore the Index Level or the value of any relevant instruments or financial products linked to the Index. With respect to any of these activities, neither Deutsche Bank AG nor any of its affiliates has any obligation to take the level of the Index into consideration at any time.

This document is referred to as the **Index Description** and consists of the following Sections:

Section:	Page
1. Introduction to the Index	3
2. Index Risk Factors	4
3. Definitions	5
4. Index Calculation	8
5. Index Publication	9
6. Disruption Events	10
7. Adjustment Provisions	11

The Deutsche Bank Commodity Fundamental Fair Value USD ER Index (*Bloomberg Code: DBCFFVUE <Index>*) (the **Index**) is a Deutsche Bank AG proprietary index. The Index is the intellectual property of Deutsche Bank AG (**Deutsche Bank AG** or the **Index Owner**, which expression shall include any successor in such capacity). The Index Owner owns the copyright and all other intellectual property rights in the Index and this Index Description. Any use of these intellectual property rights must be with the prior written consent of the Index Owner.

The Index will be governed by the Index Administrator (as defined below). The initial Index Administrator shall be Deutsche Bank AG operating through Deutsche Bank Index Quant (**DBIQ**), a research unit within Deutsche Bank AG via its internal processes and the **Index Administrator** shall mean Deutsche Bank AG acting in such capacity or any successor thereto. The Index Administrator controls the creation and operation of the Index

administrative process, including all stages and processes involved in the production and dissemination of the Index. Notwithstanding that the Index relies on information from third party sources, the Index Administrator has primary responsibility for all aspects of the Index administration and determination process.

The Index Administrator has implemented and maintains the DBIQ User Guidance and Administrator Handbook Overview (the **Overview**), which sets out a summary of the policies, procedures and controls implemented by the management of the Index Administrator to promote sound business practices for the lifecycle management of the Index Owner's proprietary benchmarks by the Index Administrator. The Overview also includes the Index Administrator's policy related to quality of benchmarks and input data management. Additional issues related to governance, controls, benchmark classification and risk controls, restatement and calculation error management, periodic reviews and conflicts of interest are also addressed. The Overview does not form part of this Index Description or of any document into which this Index Description may be incorporated.

1. INTRODUCTION TO THE INDEX

This section summarises a number of features of the Index. This section should be read as a summary introduction to the Index Description but is no substitute for reviewing the Index Description in full. Capitalised terms not otherwise defined shall have the meanings given in Section 3 (Definitions).

The Index to which this Index Description relates is owned by the Index Owner and is administered by the Index Administrator. Certain key features of the Index are as follows:

- The Index tracks a rules-based strategy notionally investing in a weighted basket of commodity indices (each a **Sub-Index**) and each such Sub-Index in turn tracks a selection of single commodity sub-indices taking a nominal long or short position based on the relative undervaluation or overvaluation of the futures' prices.
- The Index Level will, subject as provided below, be calculated in respect of each Index Business Day by the Index Administrator and may be used in connection with one or more financial products (each a **Financial Product**) relating to the Index. The Financial Products may be issued or entered into by Deutsche Bank AG, London Branch or other financial product providers. Each investor in relation to Financial Products is referred to as a **Financial Product Investor**.
- Although the Index Administrator will obtain information for inclusion in or for use in the calculation of the Index from sources which the Index Administrator considers reliable, the Index Administrator will not independently verify such information and does not guarantee the accuracy and/or the completeness of the Index or any data included in the Index. The Index Administrator shall not be liable (whether in negligence or otherwise) to any person for any error in the Index and the Index Administrator is under no obligation to advise any person of any error therein.
- All determinations referred to below will be made by the Index Administrator by reference to such factors as it deems appropriate and such determinations will, save for manifest error, be binding on all parties.
- The Index is "notional" in nature. This means that the Index Administrator is not obliged to enter into transactions in respect of each commodity future in order to calculate the Index.
- The Index contains Disruption Event provisions which apply when events require the Index Administrator to calculate the Index on an alternative basis were such event to occur or exist on such day, as described in Section 6 (*Disruption Events*) below. If a Disruption Event occurs, the Index Administrator may make such adjustments and/or determinations in relation to the Index as it may determine, in its sole and absolute discretion, appropriate to facilitate the calculation and publication of the Index Level or, if such adjustment or calculation cannot be made, defer calculation and publication of the Index Level and, in some cases, permanently cease to calculate the Index. These events may have an adverse effect on Financial Product Investors. Index Levels which are calculated following any such delay may give different economic results in relation to the Financial Products than the Index Levels which

would have prevailed but for such delay. If the Index is cancelled or adjusted, this may lead to the calculation agent in respect of a Financial Product taking action under provisions of the Financial Product which may have an adverse effect on Financial Product Investors.

- The Index contains Adjustment Event provisions which entitle the Index Administrator to make such modifications and/or changes in its reasonable discretion deems appropriate, as described in Section 7 (*Adjustment Provisions*) below. If market, regulatory, judicial, financial, fiscal or other circumstances arise that would, in the determination of the Index Administrator, necessitate or make desirable a modification or change to this Index Description in order for the Index to continue to be calculated and determined notwithstanding the relevant circumstances, the Index Administrator may make such modifications or changes.
- This Section 1 (*Introduction to the Indices*) is subject to and qualified by the remainder of this Index Description.
- The Index Level will be expressed in the Index Currency.

2. INDEX RISK FACTORS

The risk factors set out in this Section 2 (*Index Risk Factors*) are not a comprehensive list of all risks that might have an adverse effect on the value of the Index. When considering an investment in a Financial Product, prospective Financial Product Investors should review carefully the whole of the Index Description and form their own decisions as to risks associated with the Index Administrator and the Index.

Risks relating to the Index

Volatility of Commodities: Trading in commodities is speculative and may be extremely volatile. Commodity prices are affected by a variety of factors that are unpredictable including, for example, changes in supply and demand relationships, weather patterns and extreme weather conditions, environmental disasters, governmental programmes and policies, national and international political, military, terrorist and economic events, fiscal, monetary and exchange control programmes and changes in interest and exchange rates. Commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, the participation of speculators and government regulation and intervention. These circumstances could also adversely affect prices of the relevant commodity. Therefore, commodity prices may be more volatile than other asset classes.

Commodity Futures: The price of a futures contract on a commodity will generally be at a premium or at a discount to the spot price of the underlying commodity. Accordingly, products linked to commodity futures contracts may provide a different return than products linked to the relevant physical commodity.

Index Rebalancing: Each Index is rebalanced and the weight assigned to each Sub-Index is adjusted with effect from each Rebalancing Day and remains fixed until the next Rebalancing Day. Therefore, any sudden changes (positive or negative) to a Sub-Index and the trend in respect of the performance of each Sub-Index in between Rebalancing Days will not be taken into consideration in calculating the Index Level until the next Rebalancing Day.

Index Administrator's Powers: The Index Administrator has a number of discretions in relation to an Index, which always have to be exercised in good faith and in a commercially reasonable manner. Nevertheless the exercise of these discretions may have a significant effect on Financial Products. In particular:

- If a Disruption Event occurs, the Index Administrator may make such adjustments and/or determinations in relation to the Index as it may determine, in its sole and absolute discretion, appropriate to facilitate the calculation and publication of the Index Level or postpone or cancel and permanently cease to calculate an Index. A Disruption Event may occur, amongst other things, as a result of the failure of trading to commence, or the permanent discontinuation of trading in any relevant futures contract.
- If market, regulatory, judicial, financial, fiscal or other circumstances arise that would necessitate or make desirable a modification or change to this Index Description, the

Index Administrator may make such modifications or changes.

General risks

Multiple roles of Deutsche Bank Entities: Conflicts of interest may exist between the Index Owner, initial Index Administrator and Deutsche Bank AG, London Branch and its affiliates (each a **Deutsche Bank Entity**).

A Deutsche Bank Entity may also act as the issuer of, or an obligor under, a Financial Product and as a dealer, calculation agent or hedge provider in relation to a Financial Product. Various conflicts of interest might exist or arise as a result of these different roles as well as from the overall activities of Deutsche Bank Entities. Deutsche Bank AG has a regulatory obligation to take reasonable steps to manage such conflicts fairly. Such reasonable steps include information walls being maintained between the personnel of Deutsche Bank Entities involved in different roles. However, as with any set of systems and controls there is a risk that such information walls might not be effective in all cases.

No disclosure of information: Deutsche Bank Entities may be in possession at any time of information in relation to the Index which may not be available to Financial Product Investors. There is no obligation on any Deutsche Bank Entity to disclose to Financial Product Investors any such information.

Fees: Deutsche Bank Entities shall be entitled to receive fees or other payments and exercise all rights, including rights of termination or resignation, which they may have, even though this may have a detrimental effect on the Index and Financial Products.

Hedging Arrangements: The Index is calculated as a "notional" index. This means that the Index reflects the performance of notional commodity futures contracts as further outlined and detailed in each Sub-Index, but there is no requirement for the Index Administrator to enter into commodity futures contracts in relation to such commodity futures contracts in order to calculate the Index. Deutsche Bank Entities may enter into commodity futures contracts in order to meet obligations in respect of Financial Products or for any other purpose, but Deutsche Bank Entities are not required to do this. If they do, Deutsche Bank Entities will have certain rights pursuant to such futures contracts and will pursue actions and take steps that they deem appropriate to protect their own interests.

Political and Economic Factors: Commodity futures may be influenced by a number of circumstances, including but not limited to political events, general economic conditions, government intervention, changes in balances of payments and trade, domestic and international rates of inflation, international trade restrictions and currency devaluations. Any such circumstance (or a combination of them) may cause unexpected volatility or illiquidity in the commodity futures markets. This may have an adverse effect on Index Levels which may in turn have an adverse effect on the performance of Financial Products.

Future Regulatory Change in respect of commodity futures: Legal and regulatory changes could adversely affect commodity futures. In addition, many governmental agencies and regulatory organisations are authorised to take extraordinary actions in the event of market emergencies. The effect of any future legal or regulatory change on commodity futures is not possible to predict, but could be substantial and adverse.

Future Regulatory Change in respect of indices: Legal and regulatory changes could adversely affect indices including the Index or any Sub-Index. The effect of any future legal or regulatory change on indices may not be possible to predict, but could be substantial and adverse.

3. DEFINITIONS

Affiliate means, in respect of the Index Administrator, any entity controlled, directly or indirectly, by the Index Administrator, any entity that controls, directly or indirectly, the Index Administrator or any entity directly or indirectly under common control with the Index Administrator. For this purpose, **control** of any entity or person means ownership of a majority of the voting power of the entity or person.

Bloomberg means Bloomberg L.P. or any successor thereto.

DBIQ Website means <http://www.index.db.com>.

Force Majeure Event means, in respect of the Index, an event or circumstance (including, without limitation, a systems failure, fire, building evacuation, natural or man-made disaster, act of God, armed conflict, act of terrorism, riot or labour disruption or any similar intervening circumstance) which is beyond the reasonable control of the Index Administrator and affects the Index or a Sub-Index or affects the ability of the Index Administrator to calculate or determine the Index.

Index has the meaning given to such term on page 2 of this Index Description.

Index Administrator has the meaning given to such term on page 2 of this Index Description.

Index Business Day means a day which is an Index Business Day (as such term is defined in each Sub-Index Description) in respect of each Sub-Index.

Index Commencement Date means 3 January 2008.

Index Currency means USD.

Index Description has the meaning given to such term on page 2 of this Index Description.

Index Level means, in respect of an Index Business Day, an amount, expressed in the Index Currency, being the closing level of the Index in respect of such Index Business Day, as determined by the Index Administrator in accordance with Section 4(b) (*Index Calculation on each Index Business Day*).

Index Valuation Time means the time at which or in respect of which the Index Administrator calculates and publishes the official closing level of the Index.

Initial Index Level means 100.014891.

Initial Sub-Index Level means, in respect of a Sub-Index, "Initial Index Level" in respect of such Sub-Index (as such term is defined in the Sub-Index Description in respect of such Sub-Index).

Initial Notional Holding means, in respect of a Sub-Index, the product of:

- (iii) the Weight in respect of such Sub-Index; and
- (iv) the quotient of:
 - (c) the Index Level in respect of the Index Commencement Day (as numerator); and
 - (d) the Sub-Index Level in respect of such Sub-Index in respect of the Index Commencement Day (as denominator).

Expressed as a formula:

$$U(I,j) = w(j) * \frac{IL(I)}{ILo(I,j)}$$

Where:

- IL(I)** means the Index Level in respect of the Index Commencement Date;
- ILo(I,j)** means, in respect of a Sub-Index, the Sub-Index Level in respect of such Sub-Index in respect of the Index Commencement Date;
- U(I,j)** means, in respect of a Sub-Index, the Initial Notional Holding in respect of such Sub-Index; and
- w(j)** means, in respect of a Sub-Index, the Weight in respect of such Sub-Index.

Notional Holding means, in respect of a Sub-Index and an Index Business Day:

- (iii) if such Index Business Day is not a Rebalancing Day, the Notional Holding in respect of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day (or, if such immediately preceding Index Business Day falls on

the Index Commencement Date, the Initial Notional Holding in respect of such Sub-Index); and

- (iv) if such Index Business Day falls on a Rebalancing Day, an amount determined by the Index Administrator as the product of:
 - (e) the Weight in respect of such Sub-Index; and
 - (f) the quotient of:
 - (1) the Index Level in respect of such Index Business Day (as numerator); and
 - (2) the Sub-Index Level in respect of such Sub-Index in respect of such Index Business Day (as denominator).

Expressed as formula:

$$U(t,j) = w(j) * \frac{IL(t)}{ILo(t,j)}$$

Where:

$IL(t)$	means, in respect of an Index Business Day, the Index Level in respect of such Index Business Day;
$ILo(t,j)$	means, in respect of a Sub-Index and an Index Business Day, the Sub-Index Level in respect of such Sub-Index and such Index Business Day;
$U(t,j)$	means, in respect of a Sub-Index and an Index Business Day, the Notional Holding in respect of such Sub-Index and such Index Business Day; and
$w(j)$	means, in respect of a Sub-Index, the Weight in respect of such Sub-Index.

Processes means the processes and controls set out in Section 8 (*Input Data Management*) of the Overview (or any successor publication and/or section of such publication that addresses the input data management policy of the Index Administrator).

Rebalancing Day means the second Index Business Day of each month from (but excluding) the Index Commencement Date.

Sub-Index means each of:

- (i) the Deutsche Bank Energy Fundamental Fair Value USD ER Index ("**Sub-Index 1**");
- (ii) the Deutsche Bank Precious Metals Fundamental Fair Value USD ER Index ("**Sub-Index 2**");
- (iii) the Deutsche Bank Industrial Metals Fundamental Fair Value USD ER Index ("**Sub-Index 3**"); and
- (iv) the Deutsche Bank Agricultural Fundamental Fair Value USD ER Index ("**Sub-Index 4**").

each as defined in the relevant Sub-Index Description.

Sub-Index Description means, in respect of:

- (i) Sub-Index 1, the "Description of the Deutsche Bank Energy Fundamental Fair Value USD ER Index" as set out in Annex 1 to this Index Description (as such may be amended, supplemented or restated from time to time);
- (ii) Sub-Index 2, the "Description of the Deutsche Bank Precious Metals Fundamental Fair Value USD ER Index" as set out in Annex 2 to this Index Description (as such may be amended, supplemented or restated from time to time);
- (iii) Sub-Index 3, the "Description of the Deutsche Bank Industrial Metals Fundamental Fair Value USD ER Index" as set out in Annex 3 to this Index Description (as such may be amended, supplemented or restated from time to time); and

- (iv) Sub-Index 4, the “Description of the Deutsche Bank Agriculture Fundamental Fair Value USD ER Index” as set out in Annex 4 to this Index Description (as such may be amended, supplemented or restated from time to time).

Sub-Index Level means, in respect of each Sub-Index, the “Index Level” in respect of such Sub-Index (as such term is defined in the Sub-Index Description in respect of such Sub-Index).

Successor Source means, in relation to any display page, other published source, information vendor or provider:

- (i) the successor display page, other published source, information vendor or provider that has been officially designated by the sponsor of the original page or source; or
- (ii) if the sponsor of the original page or source has not officially designated a successor display page, other published source, service or provider (as the case may be), the successor display page, other published source, service or provider, if any, designated by the relevant information vendor or provider (if different from such sponsor).

USD means United States dollars.

Weight means, in respect of:

- (i) Sub-Index 1, 32 per cent. (expressed as 0.32);
- (ii) Sub-Index 2, 14 per cent. (expressed as 0.14);
- (iii) Sub-Index 3, 40 per cent. (expressed as 0.40); and
- (iv) Sub-Index 4, 14 per cent. (expressed as 0.14).

4. INDEX CALCULATION

(a) Index Calculation on the Index Commencement Date

The Index is deemed to have been established on the Index Commencement Date.

The Index Level in respect of the Index Commencement Date was equal to the Initial Index Level.

The Index has been calculated back to the Index Commencement Date.

(b) Index Calculation on each Index Business Day

The Index Level on each Index Business Day from (but excluding) the Index Commencement Date shall be an amount (in the Index Currency) calculated by the Index Administrator as the sum of:

- (i) the Index Level in respect of the Index Business Day immediately preceding such Index Business Day (or, if none, the Initial Index Level); and
- (ii) the aggregate in respect of each Sub-Index of the product of:
- (a) (1) the Sub-Index Level in respect of such Sub-Index and such Index Business Day; minus
- (2) the Sub-Index Level in respect of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day (or, if such Index Business Day is the Index Commencement Date, the Initial Sub-Index Level); and
- (b) the Notional Holding in respect of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day (or, if none, the Initial Notional Holding in respect of such Sub-Index).

Expressed as a formula:

$$IL(t) = IL(t - 1) + \sum_{j=1}^4 (ILo(t, j) - ILo(t - 1, j)) * U(t - 1, j)$$

Where:

<i>IL(t)</i>	means, in respect of an Index Business Day, the Index Level in respect of such Index Business Day;
<i>IL(t-1)</i>	means, in respect of an Index Business Day, the Index Level in respect of the Index Business Day immediately preceding such Index Business Day (or, if none, the Initial Index Level);
<i>ILα(t,j)</i>	means, in respect of an Index Business Day and a Sub-Index, the Sub-Index Level in respect of such Sub-Index in respect of such Index Business Day;
<i>ILα(t-1,j)</i>	means, in respect of an Index Business Day and a Sub-Index, the Sub-Index Level in respect of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day (or, if such Index Business Day is the Index Commencement Date, the Initial Sub-Index Level); and
<i>U(t-1,j)</i>	means, in respect of an Index Business Day and a Sub-Index, the Notional Holding of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day (or, if such Index Business Day is the Index Commencement Date, the Initial Notional Holdings in respect of such Sub-Index).

(c) Miscellaneous

The Index Level in respect of each Index Business Day shall be calculated to six decimal places with 0.0000005 being rounded upwards (such level being the **Calculated Index Level** in respect of such Index Business Day) and published to four decimal places with 0.00005 being rounded upwards, as set out in the section headed "Index Publication" below. The Index Administrator shall make available the Calculated Index Level in respect of each Index Business Day (including, for the avoidance of doubt, if requested, any historical Calculated Index Levels) on application to DBIQ at the Index Administrator's principal office in London for the time being at Winchester House, 1 Great Winchester Street, London EC2N 2DB.

The methodology described in this Section 4 (*Index Calculation*) is subject to the provisions set out in Section 6 (*Disruption Events*) and Section 7 (*Adjustment Provisions*).

5. Index Publication

(a) Availability of Index Levels and Adjustments

The Index Administrator will make available (a) the Index Level in respect of the Index in respect of each Index Business Day as soon as reasonably practicable after the Index Valuation Time on such Index Business Day and (b) details of any adjustments made to the Index, in each case, on application to DBIQ at the Index Administrator's principal office in London for the time being at Winchester House, 1 Great Winchester Street, London EC2N 2DB.

In addition, the Index Level and details of any changes to any Relevant Exchange and consequential changes as a result thereof will be available on the DBIQ Website and Bloomberg Page DBCFFVUE <Index> (or any Successor Sources that the Index Administrator shall elect from time to time).

(b) Corrections and/or Recalculations

In the event that any price or level published on any date which is utilised for any calculation or determination in respect of the Index is subsequently corrected and/or recalculated in accordance with its terms or description (as the case may be), or the Index Administrator identifies an error or omission in any of its calculations or determinations in respect of the Index, the Index Administrator may, in its sole discretion adjust or correct any relevant terms, calculations or determinations in respect of the Index to take into account such correction(s), recalculation(s), error(s) or omission(s) (as the case may be) but is not obliged to do so.

(c) Miscellaneous

Any publication described in this Section 5 (*Index Publication*) may be restricted by means determined as appropriate for such purpose by the Index Administrator in its sole and absolute discretion including, but not limited to, password protection on the DBIQ Website restricting access to a limited set of persons in accordance with arrangements agreed between the Index Administrator and such persons.

The Index Administrator may, at any time and without notice, change with respect to the Index the place of publication of the Index Level.

The Index Administrator may, at any time and without notice, change the frequency of publication of the Index Level.

The Index Administrator accepts no legal liability to any person for publishing or not continuing to publish for any period of time any Index Level at any particular place or any particular time.

In the event of any ambiguity in, or dispute about the meaning of, any of the provisions of this Index Description, the Index Administrator shall, in its sole and absolute discretion, construe the relevant provision(s) in order to determine the correct interpretation thereof, and the decision of the Index Administrator shall be final.

6. DISRUPTION EVENTS

(a) General

Disruption Event means, in respect of the Index and an Index Business Day, an event that would require the Index Administrator to calculate the Index on an alternative basis were such event to occur or exist on such day, all as determined by the Index Administrator in its sole and absolute discretion.

Without limitation, the following may be a Disruption Event if so determined by the Index Administrator in its sole and absolute discretion:

- (i) **Sub-Index Disruption Event.** The Index Administrator determines that a Sub-Index Level in respect of a Sub-Index is not published within the scheduled or usual timeframe for publication in respect of an Index Business Day.

(b) Consequences of Disruption Events

If a Disruption Event in respect of the Index occurs or subsists on an Index Business Day, that in the determination of the Index Administrator prevents or otherwise affects its determinations with respect to the Index Level or any other relevant value that requires determination or calculation by the Index Administrator in relation to such Index Business Day, then:

- (i) first, the Index Administrator may make such adjustments and/or determinations in relation to the Index (including, but not limited to, this Index Description) and any relevant value as it may determine, in its sole and absolute discretion, appropriate to facilitate the calculation and publication of the Index Level in respect of such Index Business Day;
- (ii) secondly, if the Index Administrator determines that any such adjustment or determination referred to in sub-section (i) above cannot be made on such Index Business Day, then the Index Administrator may defer calculation and publication of the Index Level until the next Index Business Day on which the Index Administrator determines, in its sole and absolute discretion, that no Disruption Event exists in respect of the Index provided that where any such deferral of calculation and publication continues for a period of ten consecutive Index Business Days, then the Index Administrator may:
 - (a) calculate and publish the Index Level relating to each Index Business Day falling in or after such period having regard to the then prevailing market conditions, the last reported price, value, rate or level of any instrument relating to the Index and such other factor(s) and condition(s) that the Index Administrator considers relevant for the purpose of determining such Index

Levels including, but not limited to, any modifications that the Index Administrator determines to be appropriate in relation to reconstitution relating to the Index; and/or

- (b) permanently cease to calculate and publish the relevant Index Level as of the later of (x) the date when such Disruption Event commenced or (y) the Index Business Day following the last Index Business Day for which the Index Administrator calculated and published the relevant Index Level in accordance with sub-section (i) above (if any) and, in each case, as applicable, such Index shall terminate.

(c) Force Majeure Event

If a Force Majeure Event occurs on an Index Business Day, the Index Administrator may, in its sole and absolute discretion:

- (i) make such determinations and/or adjustments to the terms contained in this Index Description as it considers appropriate to determine the relevant Index Level in respect of such Index Business Day; and/or
- (ii) defer publication of the relevant Index Level in respect of such Index Business Day until the next Index Business Day on which it determines that no Force Majeure Event exists; and/or
- (iii) permanently cancel publication of the relevant Index Level.

(d) Hedging Disruption Event

If the Index Administrator determines that it and/or any of its Affiliates would be unable, after using commercially reasonable efforts, to: (a) acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction(s) or asset(s) it deems necessary to hedge its position in relation to any securities issue, financial instrument or other relevant financial transaction relating to or calculated by reference to an Index; or (b) realise, recover or remit the proceeds of any such transaction(s) or asset(s) has occurred or exists on an Index Business Day, the Index Administrator may, in its sole and absolute discretion:

- (i) make such determinations and/or adjustments to the terms contained in this Index Description as it considers appropriate to determine the relevant Index Level in respect of such Index Business Day; and/or
- (ii) defer publication of the relevant Index Level in respect of such Index Business Day until the next Index Business Day on which it determines that no Hedging Disruption Event exists; and/or
- (iii) permanently cancel publication of the relevant Index Level.

(e) Overview

Any such adjustments and/or determinations or decisions to permanently cease to calculate and publish an Index Level in respect of the Index pursuant to sub-Sections 6(b), (c) or (d) shall be made by the Index Administrator as far as reasonably practicable in accordance with Section 10 (*Changes to and Retiring a Benchmark*) of the Overview.

7. ADJUSTMENT PROVISIONS

Change in methodology

In calculating and determining the value of the Index, the Index Administrator will, subject as provided below, employ the methodology described herein and its application of such methodology shall be conclusive and binding. While the Index Administrator currently employs the above described methodology to calculate the Index, no assurance can be given that market, regulatory, judicial, financial, fiscal or other circumstances (including, but not limited to, any changes to or any suspension or termination of any constituent of the Index or any other events affecting transactions on the same or similar terms to any described herein) will not arise that would, in the view of the Index Administrator, necessitate or make desirable a modification of or change to such methodology.

Accordingly:

- (i) The Index Administrator shall be entitled to make such modifications and/or changes as it deems appropriate, including (without limitation):
 - (a) to correct any manifest error or proven error contained in the methodology described herein; and/or
 - (b) to cure, correct or supplement any defective provision contained in the methodology described herein; and/or
 - (c) if market, regulatory, juridical, financial, fiscal or other circumstances arise, and such circumstances would, in the determination of the Index Administrator, necessitate or make desirable such a modification or change of the methodology described herein (including, but without limitation, a change in the frequency of calculation of any Index Level) in order for the Index to continue being calculated and determined notwithstanding the relevant circumstances. In deciding what is necessary the Index Administrator will consider and/or take into account what the Index Administrator determines to be the intended strategy of the Index;
- (ii) Further, and without limitation to the above provisions, the Index Administrator shall be entitled to make such modifications and/or changes as it deems appropriate:
 - (a) to preserve the intended strategy of the Index, where such modification and/or change is of a formal, minor or technical nature; and/or
 - (b) if market, regulatory, juridical, financial, fiscal or other circumstances arise, and in the determination of the Index Administrator, such modifications and/or changes would assist in maintaining the intended strategy of the Index and/or would ensure that the Index can continue to be calculated and determined by the Index Administrator in light of such circumstances.

In making such modifications however the Index Administrator will:

- (i) ensure that such modifications or changes pursuant to (i) or (ii) above will result in a methodology that is consistent in its intended commercial purpose with the methodology described in this Index Description; and
- (ii) limit any such modification or change to the terms of the Index and/or method of calculating the Index Level.

The Index Administrator may, in its discretion, at any time and without notice, terminate the calculation and publication of the Index pursuant to Section 10.2 (*Benchmark Retirement*) of the Overview.

The Overview sets out the process for making changes to its benchmarks as a general matter and the internal oversight and approval process that DBIQ will go through. It also sets out DBIQ's procedures for consulting on and notifying changes. Any such modification or change in methodology described in this Description shall be made in accordance with Section 10.1 (*Change to a Benchmark*) of the Overview.

Annex 1
Description of the Deutsche Bank Energy Fundamental Fair Value USD ER Index

Deutsche Bank



Description of the Deutsche Bank Energy Fundamental Fair Value USD ER Index™

Date: 12 June 2018

Version: 2

In the event of any inconsistency between the English language version of the text below and that which may be translated into any other language, the English language version shall prevail. Terms used herein have the meaning given to them in Section 3 (*Definitions*).

All determinations of the Index Administrator described herein shall be made according to the terms set out herein and, save for manifest error, shall be final and binding on all parties.

The Index Administrator is not obliged to enter into, or promote, transactions or investments that are linked to the Index.

Subject as required by law, the Index Administrator is under no obligation to maintain or calculate the Index and may cancel or cease to calculate the Index at any time without notice.

The Index Administrator does not assume any obligation or duty to any party and under no circumstances does the Index Administrator assume any relationship of agency or trust or of a fiduciary nature for or with any party. Any calculations or determinations in respect of the Index or any part thereof shall be made by the Index Administrator acting reasonably and in good faith and shall (save in the case of manifest error) be final, conclusive and binding. The term "manifest error" as used herein shall mean an error that is plain and obvious and can be identified from the results of the calculation or determination itself without: (i) recourse to any underlying data; or (ii) any application or re-application of any formulae.

The Index Administrator may delegate and/or transfer any of its obligations and/or functions to one or more third parties as it deems appropriate from time to time.

The Index Administrator makes no express or implied representations or warranties as to (a) the advisability of purchasing or assuming any risk in connection with any transaction which references or is otherwise linked to this Index, (b) the levels at which the Index stands at any particular time on any particular date, (c) the results to be obtained by any party from the use of the Index or any data included in it for the purposes of issuing securities or carrying out any financial transaction or (d) any other matter. Calculations may be based on information obtained from various publicly available sources. The Index Administrator has relied on these sources and has not independently verified the information extracted from these sources and accepts no responsibility or liability in respect thereof. If there is a calculation error the Index Administrator may restate the Index Level.

Without limiting any of the foregoing, in no event shall the Index Administrator have any liability (whether in negligence or otherwise) to any person in connection with such person's unauthorised use of the Index. "Unauthorised use" shall be construed as any use of the Index except where such use is pursuant to a transaction between a party and Deutsche Bank AG in respect of the Index.

Without limiting any of the foregoing, where use of the Index by a party is pursuant to a transaction between that party and Deutsche Bank AG, in no event shall the Index Administrator have any liability to any person except where such liability arises from the Index Administrator's wilful default, negligence resulting from a breach of material obligations only, or gross negligence in all other respects.

Nothing herein shall be taken to exclude any liability for fraud on the part of the Index Administrator.

Without prejudice to the foregoing, in no event shall the Index Administrator have any liability for any indirect, special, punitive or consequential damages (provided that any such damage is not reasonably foreseeable) even if notified of the possibility of such damages.

Conflicts of Interest

Conflicts of interest may exist or arise between the Index Administrator and Deutsche Bank entities acting in other capacities, including as Administrator for the Index or as counterparty to a transaction or as contributor of forecasts that feed into the

calculation of the index. Each relevant Deutsche Bank entity will pursue actions and take steps that it deems appropriate to protect its own interests without regard to the consequences for investors in respect of any investment or instrument linked or relating to the Index or otherwise.

Deutsche Bank entities shall be entitled to receive fees or other payments pursuant to investments or instruments linked or relating to the Index or otherwise and to exercise all rights, including rights of termination or resignations, which they may have, even though doing so may have a detrimental effect on investors in any investment or instrument linked or relating to the Index.

Trading and other transactions by Deutsche Bank AG or its affiliates

Deutsche Bank AG and/or its affiliates may hedge its obligations under any relevant instruments or financial products linked to the Index by purchasing or selling securities and other assets, or listed or over-the-counter options, futures, swaps or other derivative financial instruments underlying or linked to the Index. Although they are not expected to, any of these hedging activities may adversely affect the value of such assets, and therefore the Index Level or the value of any relevant instruments or financial products linked to the returns from these hedging activities while the level of the Index and/or relevant instruments or financial products linked to the Index declines.

Deutsche Bank AG and/or its affiliates may also engage in trading in securities and other assets, or listed or over-the-counter options, futures, swaps or other derivative financial instruments underlying or linked to the Index on a regular basis as part of their general broker-dealer and other businesses, for proprietary accounts, for other accounts under management or to facilitate transactions for customers. Any of these activities could adversely affect the value of such assets, and therefore the Index Level or the value of any relevant instruments or financial products linked to the Index. With respect to any of these activities, neither Deutsche Bank AG nor any of its affiliates has any obligation to take the level of the Index into consideration at any time.

Bloomberg Disclaimer

“Bloomberg®”, “Bloomberg Commodity IndexSM” are service marks of Bloomberg Finance L.P. and its affiliates (collectively, “Bloomberg”) and have been licensed for use for certain purposes by Deutsche Bank AG (the “Licensee”). Bloomberg does not approve or endorse this material, the Index, any strategy related thereto and disclaims any and all liability for any loss or damage of any kind arising out of the use of all or any part of the Index, any data related thereto (including any data in relation to Forecast Prices) and any strategy based thereon.

Without limiting the generality of the foregoing, please be advised that any investment strategies or financial products (collectively, “Products”) referenced in this document are not sponsored, endorsed, sold or promoted by Bloomberg, UBS AG, UBS Securities LLC (“UBS Securities”) or any of their subsidiaries or affiliates. None of Bloomberg, UBS AG, UBS Securities or any of their subsidiaries or affiliates makes any representation or warranty, express or implied, to the owners of or counterparties to the Product(s) or any member of the public regarding the advisability of investing in securities or commodities generally or in the Product(s) particularly. The only relationship of Bloomberg, UBS AG, UBS Securities or any of their subsidiaries or affiliates to the Licensee is the licensing of certain trademarks, trade names and service marks and of the Bloomberg Commodity Index, which is determined, composed and calculated by Bloomberg in conjunction with UBS Securities without regard to Deutsche Bank or the Product(s). Bloomberg and UBS Securities have no obligation to take the needs of Deutsche Bank or the owners of the Product(s) into consideration in determining, composing or calculating Bloomberg Commodity Index. None of Bloomberg, UBS AG, UBS Securities or any of their respective subsidiaries or affiliates is responsible for or has participated in the determination of the timing of, prices at, or quantities of the Product(s) to be issued or in the determination or calculation of the equation by which the Product(s) are to be converted into cash. None of Bloomberg, UBS AG, UBS Securities or any of their subsidiaries or affiliates shall have any obligation or liability, including, without limitation, to Products

customers, in connection with the administration, marketing or trading of the Product(s). Notwithstanding the foregoing, UBS AG, UBS Securities and their respective subsidiaries and affiliates may independently issue and/or sponsor financial products unrelated to the Products currently being issued by Licensee, but which may be similar to and competitive with the Products. In addition, UBS AG, UBS Securities and their subsidiaries and affiliates actively trade commodities, commodity indexes and commodity futures, as well as swaps, options and derivatives which are linked to the performance of such commodities, commodity indexes and commodity futures. It is possible that this trading activity will affect the value of the Bloomberg Commodity Index and Products.

This document is referred to as the **Index Description** and consists of the following Sections:

Section:	Page
1. Introduction to the Index	3
2. Index Risk Factors	4
3. Definitions	6
4. Index Calculation	12
5. Index Publication	18
6. Disruption Events	19
7. Adjustment Provisions	22

The Deutsche Bank Energy Fundamental Fair Value USD ER Index (the **Index**) is a Deutsche Bank AG proprietary index. The Index is the intellectual property of Deutsche Bank AG (**Deutsche Bank AG** or the **Index Owner**, which expression shall include any successor in such capacity). The Index Owner owns the copyright and all other intellectual property rights in the Index and this Index Description. Any use of these intellectual property rights must be with the prior written consent of the Index Owner.

The Index will be governed by the Index Administrator (as defined below). The initial Index Administrator shall be Deutsche Bank AG operating through Deutsche Bank Index Quant (**DBIQ**), a research unit within Deutsche Bank AG via its internal processes and the **Index Administrator** shall mean Deutsche Bank AG acting in such capacity or any successor thereto. The Index Administrator controls the creation and operation of the Index administrative process, including all stages and processes involved in the production and dissemination of the Index. Notwithstanding that the Index relies on information from third party sources, the Index Administrator has primary responsibility for all aspects of the Index administration and determination process.

The Index Administrator has implemented and maintains the DBIQ User Guidance and Administrator Handbook Overview (the **Overview**), which sets out a summary of the policies, procedures and controls implemented by the management of the Index Administrator to promote sound business practices for the lifecycle management of the Index Owner's proprietary benchmarks by the Index Administrator. The Overview also includes the Index Administrator's policy related to quality of benchmarks and input data management. Additional issues related to governance, controls, benchmark classification and risk controls, restatement and calculation error management, periodic reviews and conflicts of interest are also addressed. The Overview does not form part of this Index Description or of any document into which this Index Description may be incorporated.

1. INTRODUCTION TO THE INDEX

This section summarises a number of features of the Index. This section should be read as a summary introduction to the Index Description but is no substitute for reviewing the Index Description in full. Capitalised terms not otherwise defined shall have the meanings given in Section 3 (Definitions).

The Index to which this Index Description relates is owned by the Index Owner and is administered by the Index Administrator. Certain key features of the Index are as follows:

- The Index tracks a rules-based strategy notionally investing in commodity sub-indices by taking a nominal long or short position based on the relative undervaluation or overvaluation of the futures' prices.
- The Index Level will, subject as provided below, be calculated in respect of each Index Business Day by the Index Administrator and may be used in connection with one or more financial products (each a **Financial Product**) relating to the Index. The Financial Products may be issued or entered into by Deutsche Bank AG, London Branch or other financial product providers. Each investor in relation to Financial Products is referred to as a **Financial Product Investor**.
- Although the Index Administrator will obtain information for inclusion in or for use in the calculation of the Index from sources which the Index Administrator considers reliable, the Index Administrator will not independently verify such information and does not guarantee the accuracy and/or the completeness of the Index or any data included in the Index. The Index Administrator shall not be liable (whether in negligence or otherwise) to any person for any error in the Index and the Index Administrator is under no obligation to advise any person of any error therein.
- All determinations referred to below will be made by the Index Administrator by reference to such factors as it deems appropriate and such determinations will, save for manifest error, be binding on all parties.
- The Index is "notional" in nature. This means that the Index Administrator is not obliged to enter into transactions in respect of each commodity future in order to calculate the Index.
- The Index contains Disruption Event provisions which apply when events require the Index Administrator to calculate the Index on an alternative basis were such event to occur or exist on such day, as described in Section 6 (*Disruption Events*) below. If a Disruption Event occurs, the Index Administrator may make such adjustments and/or determinations in relation to the Index as it may determine, in its sole and absolute discretion, appropriate to facilitate the calculation and publication of the Index Level or, if such adjustment or calculation cannot be made, defer calculation and publication of the Index Level and, in some cases, permanently cease to calculate the Index. These events may have an adverse effect on Financial Product Investors. Index Levels which are calculated following any such delay may give different economic results in relation to the Financial Products than the Index Levels which would have prevailed but for such delay. If the Index is cancelled or adjusted, this may lead to the calculation agent in respect of a Financial Product taking action under provisions of the Financial Product which may have an adverse effect on Financial Product Investors.
- The Index contains Adjustment Event provisions which entitle the Index Administrator to make such modifications and/or changes in its reasonable discretion deems appropriate, as described in Section 7 (*Adjustment Provisions*) below. If market, regulatory, judicial, financial, fiscal or other circumstances arise that would, in the determination of the Index Administrator, necessitate or make desirable a modification or change to this Index Description in order for the Index to continue to be calculated and determined notwithstanding the relevant circumstances, the Index Administrator may make such modifications or changes.
- This Section 1 (*Introduction to the Indices*) is subject to and qualified by the remainder of this Index Description.
- The Index Level will be expressed in the Index Currency.

2. INDEX RISK FACTORS

The risk factors set out in this Section 2 (*Index Risk Factors*) are not a comprehensive list of all risks that might have an adverse effect on the value of the Index. When considering an investment in a Financial Product, prospective Financial Product

Investors should review carefully the whole of the Index Description and form their own decisions as to risks associated with the Index Administrator and the Index.

Risks relating to the Index

Volatility of Commodities: Trading in commodities is speculative and may be extremely volatile. Commodity prices are affected by a variety of factors that are unpredictable including, for example, changes in supply and demand relationships, weather patterns and extreme weather conditions, environmental disasters, governmental programmes and policies, national and international political, military, terrorist and economic events, fiscal, monetary and exchange control programmes and changes in interest and exchange rates. Commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, the participation of speculators and government regulation and intervention. These circumstances could also adversely affect prices of the relevant commodity. Therefore, commodity prices may be more volatile than other asset classes.

Commodity Futures: The price of a futures contract on a commodity will generally be at a premium or at a discount to the spot price of the underlying commodity. Accordingly, products linked to commodity futures contracts may provide a different return than products linked to the relevant physical commodity.

Index Rebalancing: Each Index is rebalanced and the weight assigned to each Sub-Index is adjusted with effect from each Rebalancing Day and remains fixed until the next Rebalancing Day. Therefore, any sudden changes (positive or negative) to a Sub-Index and the trend in respect of the performance of each Sub-Index in between Rebalancing Days will not be taken into consideration in calculating the Index Level until the next Rebalancing Day.

Index Administrator's Powers: The Index Administrator has a number of discretions in relation to an Index, which always have to be exercised in good faith and in a commercially reasonable manner. Nevertheless the exercise of these discretions may have a significant effect on Financial Products. In particular:

- If a Disruption Event occurs, the Index Administrator may make such adjustments and/or determinations in relation to the Index as it may determine, in its sole and absolute discretion, appropriate to facilitate the calculation and publication of the Index Level or postpone or cancel and permanently cease to calculate an Index. A Disruption Event may occur, amongst other things, as a result of the failure of trading to commence, or the permanent discontinuation of trading in any relevant futures contract.
- If market, regulatory, judicial, financial, fiscal or other circumstances arise that would necessitate or make desirable a modification or change to this Index Description, the Index Administrator may make such modifications or changes.

General risks

Multiple roles of Deutsche Bank Entities: Conflicts of interest may exist between the Index Owner, initial Index Administrator and Deutsche Bank AG, London Branch and its affiliates (each a **Deutsche Bank Entity**).

A Deutsche Bank Entity may also act as the issuer of, or an obligor under, a Financial Product and as a dealer, calculation agent or hedge provider in relation to a Financial Product. Various conflicts of interest might exist or arise as a result of these different roles as well as from the overall activities of Deutsche Bank Entities. Deutsche Bank AG has a regulatory obligation to take reasonable steps to manage such conflicts fairly. Such reasonable steps include information walls being maintained between the personnel of Deutsche Bank Entities involved in different roles. However, as with any set of systems and controls there is a risk that such information walls might not be effective in all cases.

No disclosure of information: Deutsche Bank Entities may be in possession at any time of information in relation to the Index which may not be available to Financial Product Investors. There is no obligation on any Deutsche Bank Entity to disclose to Financial Product Investors any such information.

Fees: Deutsche Bank Entities shall be entitled to receive fees or other payments and exercise all rights, including rights of termination or resignation, which they may have, even though this may have a detrimental effect on the Index and Financial Products.

Hedging Arrangements: The Index is calculated as a "notional" index. This means that the Index reflects the performance of notional commodity futures contracts as further outlined and detailed in each Sub-Index, but there is no requirement for the Index Administrator to enter into commodity futures contracts in relation to such commodity futures contracts in order to calculate the Index. Deutsche Bank Entities may enter into commodity futures contracts in order to meet obligations in respect of Financial Products or for any other purpose, but Deutsche Bank Entities are not required to do this. If they do, Deutsche Bank Entities will have certain rights pursuant to such futures contracts and will pursue actions and take steps that they deem appropriate to protect their own interests.

Political and Economic Factors: Commodity futures may be influenced by a number of circumstances, including but not limited to political events, general economic conditions, government intervention, changes in balances of payments and trade, domestic and international rates of inflation, international trade restrictions and currency devaluations. Any such circumstance (or a combination of them) may cause unexpected volatility or illiquidity in the commodity futures markets. This may have an adverse effect on Index Levels which may in turn have an adverse effect on the performance of Financial Products.

Future Regulatory Change in respect of commodity futures: Legal and regulatory changes could adversely affect commodity futures. In addition, many governmental agencies and regulatory organisations are authorised to take extraordinary actions in the event of market emergencies. The effect of any future legal or regulatory change on commodity futures is not possible to predict, but could be substantial and adverse.

Future Regulatory Change in respect of indices: Legal and regulatory changes could adversely affect indices including the Index or any Sub-Index. The effect of any future legal or regulatory change on indices may not be possible to predict, but could be substantial and adverse.

3. DEFINITIONS

Affiliate means, in respect of the Index Administrator, any entity controlled, directly or indirectly, by the Index Administrator, any entity that controls, directly or indirectly, the Index Administrator or any entity directly or indirectly under common control with the Index Administrator. For this purpose, **control** of any entity or person means ownership of a majority of the voting power of the entity or person.

Annual Eligible Commodities has the meaning given to such term in Section 4(h) (*Annual Review*).

Annual Review has the meaning given to such term in Section 4(h)(i) (*Annual Review*).

Average Quarterly Futures (AQF) Price means, in respect of an Index Commodity and an Index Selection Day, an amount calculated by the Index Administrator as the quotient of:

- (i) the sum of:
 - (a) the Price of the futures contract identified by Contract Month in Annex 1 hereto corresponding to the calendar month in which such Index Selection Day falls and the Index Commodity, using the table headed "Nearby Futures Contracts", as determined by the Index Administrator;
 - (b) the Price of the futures contract identified by Contract Month in Annex 1 hereto corresponding to the calendar month in which such Index Selection Day falls and the Index Commodity, using the table headed "One Month Forward Futures Contracts", as determined by the Index Administrator; and
 - (c) the Price of the futures contract identified by Contract Month in Annex 1 hereto corresponding to the calendar month in which such Index Selection Day falls and the Index Commodity, using the table headed "Two Month Forward Futures Contracts", as determined by the Index Administrator,
- (as numerator); and

(ii) 3.00 (as denominator).

Expressed as a formula:

$$AQF_i(s) = (F_i(s,1) + F_i(s,2) + F_i(S,3)) / 3$$

Where:

AQF_i(s)	means, in respect of an Index Selection Day and an Index Commodity, the Average Quarterly Futures (AQF) Price in respect of the Index Commodity in respect of such Index Selection Day;
F_i(s,1)	means, in respect of an Index Selection Day and an Index Commodity, the Price of the nearby futures contract identified by Contract Month in Annex 1 hereto corresponding to the calendar month in which such Index Selection Day falls and the Index Commodity, using the table headed "Nearby Futures Contracts", as determined by the Index Administrator;
F_i(s,2)	means, in respect of an Index Selection Day and an Index Commodity, the Price of the one month forward futures contract identified by Contract Month in Annex 1 hereto corresponding to the calendar month in which such Index Selection Day falls and the Index Commodity, using the table headed "One Month Forward Futures Contracts", as determined by the Index Administrator; and
F_i(s,3)	means, in respect of an Index Selection Day and an Index Commodity, the Price of the two month forward futures contract identified by Contract Month in Annex 1 hereto corresponding to the calendar month in which such Index Selection Day falls and the Index Commodity, using the table headed "Two Month Forward Futures Contracts", as determined by the Index Administrator.

Base Weight means, in respect of:

- (i) WTI Crude Oil Subindex, 14.00 per cent. (expressed as 0.14);
- (ii) Brent Crude Oil Subindex, 15.00 per cent. (expressed as 0.15);
- (iii) Heating Oil Subindex, 18.00 per cent. (expressed as 0.18);
- (iv) Natural Gas Subindex, 17.00 per cent (expressed as 0.17);
- (v) RBOB Gasoline Subindex, 17.00 per cent. (expressed as 0.17); and
- (vi) Gas Oil Subindex, 19.00 per cent. (expressed as 0.19).

BCOM Methodology means the Bloomberg Commodity Index Methodology published by UBS Securities LLC together with Bloomberg Finance L.P. dated February 2017 as may be amended, supplemented, replaced and/or restated from time to time.

Bloomberg means Bloomberg L.P. or any successor thereto.

Bloomberg Analyst Survey means, a prediction of commodity prices by analysts designated by Bloomberg.

Bloomberg Ticker means, in respect of:

- (i) CL, ENRFCL "X" <Index>;

- (ii) LCO, *ENRFCO* "X" <Index>;
- (iii) HO, *ENRFHO* "X" <Index>;
- (iv) NG, *ENRFNG* "X" <Index>;
- (v) RB, *ENRFXB* "X" <Index>; and
- (vi) LGO, *ENRFQS* "X" <Index>;

in each case, as determined by the Index Administrator where "X" has the meaning given below in this Section 3 (*Definitions*).

Brent Crude Oil Subindex means the Bloomberg Brent Crude Oil Subindex as published on Bloomberg page *.BCOMCO* <Index> or any Successor Source thereto.

Contract Month means, in respect of a Futures Contract, the contract month by which such Futures Contract is identified, as set out in Annex 1 hereto, as determined by the Index Administrator, where:

- (i) F means January;
- (ii) G means February;
- (iii) H means March;
- (iv) J means April;
- (v) K means May;
- (vi) M means June;
- (vii) N means July;
- (viii) Q means August;
- (ix) U means September;
- (x) V means October;
- (xi) X means November; and
- (xii) Z means December,

and, in each case, (a) a "+" following such letter shall mean the relevant month in the following calendar year; and (b) a "++" following such letter shall mean the relevant month in two following calendar years.

DBIQ Website means <http://www.index.db.com>.

Eligible Index Commodity has the meaning given to such term in Section 4(h)(ii) (*Monthly Review*).

Final Weight has the meaning given to such term in Section 4(c) (*Calculating the Final Weight*).

Force Majeure Event means, in respect of the Index, an event or circumstance (including, without limitation, a systems failure, fire, building evacuation, natural or man-made disaster, act of God, armed conflict, act of terrorism, riot or labour disruption or any similar intervening circumstance) which is beyond the reasonable control of the Index Administrator and affects the Index, a Sub-Index, the Related Index Commodity in respect of such Sub-Index or an exchange instrument in respect of such Sub-Index or affects the ability of the Index Administrator to calculate or determine the Index.

Forecast Price means, on an Index Selection Day, in respect of an Eligible Index Commodity, the final forecast price of such Eligible Index Commodity in respect of such Index Selection Day as determined by the Index Administrator on such Index Selection Day by reference to the final Bloomberg Analyst Survey arithmetic mean as published with Bloomberg field "BN_Survey_Average" in respect of such Eligible Index Commodity in respect of such Index Selection Day which is published on the Bloomberg screen page under the Bloomberg Ticker in respect of such Eligible Index Commodity or any Successor Source, *provided that*, if such page is not available for any reason at such time on such Index

Selection Day, then the forecast price in respect of such Eligible Index Commodity in respect of such Index Selection Day shall be the Rolled Forecast Price in respect of such Eligible Index Commodity in respect of such Index Selection Day, as determined by the Index Administrator.

Futures Contract means, in respect of an Index Selection Day and an Index Commodity, the futures contract identified by Contract Month in Annex 1 hereto corresponding to the calendar month in which such Index Selection Day falls and the Index Commodity, using (i) the table headed "Nearby Futures Contracts" where such futures contract is a nearby futures contract; (ii) the table headed "One Month Forward Futures Contracts" where such futures contract is a one month forward futures contract; and (iii) the table headed "Two Month Forward Futures Contracts" where such futures contract is a two month forward futures contract.

Gas Oil Subindex means the Bloomberg Gas Oil Subindex as published on Bloomberg page *BCOMGO6* <Index> or any Successor Source thereto.

Heating Oil Subindex means the Bloomberg Heating Oil Subindex as published on Bloomberg page *.BCOMHO6* <Index> or any Successor Source thereto.

Index has the meaning given to such term on page 2 of this Index Description.

Index Administrator has the meaning given to such term on page 2 of this Index Description.

Index Business Day means:

- (i) prior to 1 January 2010, a day (other than a Saturday or Sunday) on which commercial banks and foreign exchange markets settle payments and are open for general business in New York City; and
- (ii) from and including 1 January 2010, a day (other than a Saturday or Sunday) which is not a holiday in respect of Commodities in the CME Group Chicago Trading Floor Holiday Schedule for the relevant year as published on the CME Group website or any Successor Source thereto.

Index Commencement Date means 3 January 2008.

Index Commodity means, each of:

- (i) West Texas Intermediate light sweet crude oil ("**CL**");
- (ii) Brent Crude Oil ("**LCO**");
- (iii) NY Harbor ULSD ("**HO**");
- (iv) Henry Hub Natural Gas ("**NG**");
- (v) RBOB Gasoline ("**RB**"); and
- (vi) ICE Low Sulphur Gasoil ("**LGO**").

Index Currency means USD.

Index Description has the meaning given to such term on page 2 of this Index Description.

Index Level means, in respect of an Index Business Day, an amount, expressed in the Index Currency, being the closing level of the Index in respect of such Index Business Day, as determined by the Index Administrator in accordance with Section 4(b) (*Index Calculation on each Index Business Day*).

Index Selection Day means the first Index Business Day of each month.

Index Valuation Time means the time at which or in respect of which the Index Administrator calculates and publishes the official closing level of the Index.

Initial Annual Eligible Commodities has the meaning given to such term in Section 4(h)(i) (*Annual Review*).

Initial Index Level means 97.488242.

Initial Notional Holding means, in respect of:

- (i) WTI Crude Oil Subindex, -0.038473;
- (ii) Brent Crude Oil Subindex, 0.029434;
- (iii) Heating Oil Subindex, zero;
- (iv) Natural Gas Subindex, 0.170935;
- (v) RBOB Gasoline Subindex, zero; and
- (vi) Gas Oil Subindex, 0.041780.

Intermediate Weight has the meaning given to such term in Section 4(d) (*Calculating the Intermediate Weights*).

Monthly Review has the meaning given to such term in Section 4(h)(i) (*Monthly Review*).

Natural Gas Subindex means the Bloomberg Natural Gas Subindex as published on Bloomberg page *.BCOMNG6 <Index>* or any Successor Source thereto.

Notional Holding means, in respect of a Sub-Index and an Index Business Day:

- (v) if such Index Business Day is not a Rebalancing Day, the Notional Holding in respect of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day (or, if such immediately preceding Index Business Day falls on the Index Commencement Date, the Initial Notional Holding in respect of such Sub-Index); and
- (vi) if such Index Business Day falls on a Rebalancing Day, an amount determined by the Index Administrator as the product of:
 - (g) the Final Weight in respect of the Index Selection Day immediately preceding such Rebalancing Day and such Sub-Index; and
 - (h) the quotient of:
 - (3) the Index Level in respect of such Index Business Day (as numerator); and
 - (4) the Sub-Index Level in respect of such Sub-Index in respect of such Index Business Day (as denominator).

Expressed as formula:

$$U(t, i) = w(s, i) * \frac{IL(t)}{ILO(t, i)}$$

Where:

- IL(t)** means, in respect of an Index Business Day, the Index Level in respect of such Index Business Day;
- ILO(t, j)** means, in respect of a Sub-Index and an Index Business Day, the Sub-Index Level in respect of such Sub-Index and such Index Business Day;
- U(t, j)** means, in respect of a Sub-Index and an Index Business Day, the Notional Holding in respect of such Sub-Index and such Index Business Day; and
- w(s, j)** means, in respect of an Index Business Day and a Sub-Index, the Final Weight in respect of the Index Selection Day immediately preceding such Rebalancing Day and such Sub-Index.

Price means, in respect of an Index Business Day and a Futures Contract, the official settlement price of such Futures Contract in respect of such Index Business Day as published by the Relevant Exchange in respect of such Futures Contract, as determined by the Index Administrator. If such official settlement price is not published by the Relevant Exchange on such Index Business Day, the Price in respect of such Futures Contract in

respect of such Index Business Day shall be determined by the Index Administrator in good faith and a commercially reasonable manner.

Processes means the processes and controls set out in Section 8 (*Input Data Management*) of the Overview (or any successor publication and/or section of such publication that addresses the input data management policy of the Index Administrator).

Rebalancing Day means the second Index Business Day of each month from (but excluding) the Index Commencement Date.

Related Index Commodity means, in respect of a Sub-Index:

- (i) where the Sub-Index is the WTI Crude Oil Subindex, CL;
- (ii) where the Sub-Index is the Brent Crude Oil Subindex, LCO;
- (iii) where the Sub-Index is the Heating Oil Subindex, HO;
- (iv) where the Sub-Index is the Natural Gas Subindex, NG;
- (v) where the Sub-Index is the RBOB Gasoline Subindex, RB; and
- (vi) where the Sub-Index is the Gas Oil Subindex, LGO.

Relevant Exchange means, in respect of:

- (i) the WTI Crude Oil Subindex, the New York Mercantile Exchange;
- (ii) the Brent Crude Oil Subindex, Intercontinental Exchange;
- (iii) the Heating Oil Subindex, the New York Mercantile Exchange;
- (iv) the Natural Gas Subindex, the New York Mercantile Exchange;
- (v) the RBOB Gasoline Subindex, the New York Mercantile Exchange; and
- (vi) the Gas Oil Subindex; Intercontinental Exchange.

RBOB Gasoline Subindex means the Bloomberg Unleaded Gasoline Subindex as published on Bloomberg page *.BCOMRB6 <Index>* or any Successor Source thereto.

Rolled Forecast Price means, in respect of an Index Selection Day and an Eligible Index Commodity, the Forecast Price of the Eligible Index Commodity Index in respect of the immediately preceding day (other than a Saturday or Sunday) on which a Forecast Price was published, as determined by the Index Administrator.

Spread Signal means has the meaning given to such term in Section 4(g) (*Calculating the Spread Signal*).

Sub-Index means, each of:

- (i) the WTI Crude Oil Subindex;
- (ii) the Brent Crude Oil Subindex;
- (iii) the Heating Oil Subindex;
- (iv) the Natural Gas Subindex;
- (v) the RBOB Gasoline Subindex; and
- (vi) the Gas Oil Subindex.

Sub-Index Level means, in respect of each Sub-Index and an Index Business Day, the official closing level of such Sub-Index in respect of such Index Business Day as calculated and published by the relevant index sponsor of such Sub-Index as determined by the Index Administrator.

Successor Source means, in relation to any display page, other published source, information vendor or provider:

- (i) the successor display page, other published source, information vendor or provider that has been officially designated by the sponsor of the original page or source; or

- (ii) if the sponsor of the original page or source has not officially designated a successor display page, other published source, service or provider (as the case may be), the successor display page, other published source, service or provider, if any, designated by the relevant information vendor or provider (if different from such sponsor).

USD means United States dollars.

WTI Crude Oil Subindex means the Bloomberg WTI Crude Oil Subindex as published on Bloomberg page *.BCOMCL <Index* or any Successor Source thereto.

X means, in respect of an Index Selection Day and an Index Commodity, the quarter for which the Forecast Price or Rolled Forecast Price, as applicable, is considered in respect of the Relevant Bloomberg Analyst Survey in respect of the Index Commodity in respect of such Index Selection Day as specified in respect of such Index Commodity in the table entitled "Schedule for variable 'X'" at Annex 2 hereto as determined by the Index Administrator and, in each case, a "+" following such quarter shall mean the relevant quarter in the calendar year following such Index Selection Day.

Z-score has the meaning given to such term in Section 4(f) (*Calculating the Z-score*).

4. INDEX CALCULATION

(a) Index Calculation on the Index Commencement Date

The Index is deemed to have been established on the Index Commencement Date.

The Index Level in respect of the Index Commencement Date was equal to the Initial Index Level.

The Index has been calculated back to the Index Commencement Date.

(b) Index Calculation on each Index Business Day

The Index Level on each Index Business Day from (but excluding) the Index Commencement Date shall be an amount (in the Index Currency) calculated by the Index Administrator as the sum of:

- (i) the Index Level in respect of the Index Business Day immediately preceding such Index Business Day (or, if such immediately preceding Index Business Day falls on the Index Commencement Date, the Initial Index Level); and
- (ii) the aggregate in respect of each Sub-Index of the product of:
- (a)
 - (1) the Sub-Index Level in respect of such Sub-Index and such Index Business Day; minus
 - (2) the Sub-Index Level in respect of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day; and
 - (b) the Notional Holding in respect of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day (or, if such immediately preceding Index Business Day falls on the Index Commencement Date, the Initial Notional Holding in respect of such Sub-Index).

Expressed as a formula:

$$IL(t) = IL(t - 1) + \sum_{i=1}^6 (ILo(t, i) - ILo(t - 1, i)) * U(t - 1, i)$$

Where:

IL(t) means, in respect of an Index Business Day, the Index Level in respect of such Index Business Day;

IL(t-1) means, in respect of an Index Business Day, the Index Level in respect of the Index Business Day immediately preceding such Index Business Day (or, if

such immediately preceding Index Business Day falls on the Index Commencement Date, the Initial Index Level);

$IL\alpha(t,i)$ means, in respect of an Index Business Day and a Sub-Index, the Sub-Index Level in respect of such Sub-Index in respect of such Index Business Day;

$IL\alpha(t-1,i)$ means, in respect of an Index Business Day and a Sub-Index, the Sub-Index Level in respect of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day; and

$U(t-1,i)$ means, in respect of an Index Business Day and a Sub-Index, the Notional Holding of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day (or, if such immediately preceding Index Business Day falls on the Index Commencement Date, the Initial Notional Holding in respect of such Sub-Index).

(c) Calculating the Final Weight

On each Index Selection Day, the Index Administrator shall calculate the Final Weight in respect of a Sub-Index in respect of which the Eligible Index Commodity is the Related Index Commodity as an amount equal to:

- (i) if the aggregate of the absolute value in respect of the Intermediate Weights in respect of the Sub-Index in respect of all Eligible Index Commodities in respect of such Index Selection Day is equal to zero, then, in respect of each Sub-Index in respect of each Index Commodity, zero; or
- (ii) if the aggregate of the absolute value in respect of the Intermediate Weights in respect of the Sub-Index in respect of the Eligible Index Commodities in respect of such Index Selection Day is not equal to zero, the quotient of:
 - (a) the Intermediate Weight in respect of the Sub-Index in respect of which the Eligible Index Commodity is the Related Index Commodity (as numerator); and
 - (b) the aggregate of the absolute value in respect of the Intermediate Weights in respect of each Eligible Index Commodity in respect of such Index Selection Day (as denominator),

Any Index Commodity which is not an Eligible Index Commodity, as determined by the Index Administrator is assigned a Final Weight $w(s,i)$ of zero,

expressed as a formula:

$$w(s,i) = \frac{w_I(s,i)}{\sum_i abs(w_I(s,i))}$$

Where:

$w(s,i)$ means, in respect of an Index Selection Day, a Sub-Index and an Index Commodity, the Final Weight in respect of such Sub-Index in respect of such Index Selection Day; and

$w_I(s,i)$ means, in respect of an Index Selection Day, a Sub-Index and an Eligible Index Commodity, the Intermediate Weight in respect of such Sub-Index in respect of such Eligible Index Commodity in respect of such Index Selection Day.

(d) Calculating the Intermediate Weights

On each Index Selection Day, the Index Administrator shall allocate Intermediate Weights in respect of each Sub-Index in respect of which the Eligible Index Commodity is the Related Index Commodity in accordance with the following:

- (i) if there are six Eligible Index Commodities as determined by the Index Administrator, then:
 - (a) each of the Sub-Indices in respect of the top three ranked Eligible Index Commodities, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the positive value of the Base Weight in respect of such Sub-Index; and
 - (b) each of the Sub-Indices in respect of the bottom three ranked Eligible Index Commodities, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the negative value of the Base Weight in respect of such Sub-Index;
- (ii) if there are five Eligible Index Commodities as determined by the Index Administrator, then:
 - (a) each of the Sub-Indices in respect of the top two ranked Eligible Index Commodities, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the positive value of the Base Weight in respect of such Sub-Index;
 - (b) each of the Sub-Indices in respect of the bottom two ranked Eligible Index Commodities, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the negative value of the Base Weight in respect of such Sub-Index; and
 - (c) the Sub-Index in respect of the Eligible Index Commodity ranked third, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to zero;
- (iii) if there are four Eligible Index Commodities as determined by the Index Administrator, then:
 - (a) each of the Sub-Indices in respect of the top two ranked Eligible Index Commodities, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the positive value of the Base Weight in respect of such Sub-Index; and
 - (b) each of the Sub-Indices in respect of the bottom two ranked Eligible Index Commodities, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the negative value of the Base Weight in respect of such Sub-Index;
- (iv) if there are three Eligible Index Commodities as determined by the Index Administrator, then:
 - (a) the Sub-Index in respect of the top ranked Eligible Index Commodity, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the positive value of the Base Weight in respect of such Sub-Index;
 - (b) the Sub-Index in respect of the bottom ranked Eligible Index Commodity, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the negative value of the Base Weight in respect of such Sub-Index; and

- (c) the Sub-Index in respect of the Eligible Index Commodity ranked second, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to zero;
- (v) if there are two Eligible Index Commodities as determined by the Index Administrator, then:
 - (a) the Sub-Index in respect of the top ranked Eligible Index Commodity, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the positive value of the Base Weight in respect of such Sub-Index; and
 - (b) the Sub-Index in respect of the bottom ranked Eligible Index Commodity, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the negative value of the Base Weight in respect of such Sub-Index; and
- (vi) if there is one Eligible Index Commodity or no Eligible Index Commodities as determined by the Index Administrator, then, a Forecast Price Event shall have occurred for the purposes of Section 6(a)(viii) below.

(e) Assigning the Ranking

On each Index Selection Day the Index Administrator shall rank each Eligible Index Commodity in accordance with the Z-score in respect of such Index Commodity in respect of such Index Selection Day (rounded to eighteen decimal places with 0.000000000000000005 rounded upwards) with the Index Commodity with the greatest Z-score being ranked one and each remaining Eligible Index Commodity being ranked in descending order in accordance with the Z-score in respect of each such Eligible Index Commodity, as determined by the Index Administrator, provided that, if two or more Index Commodities have the same Z-score, as determined by the Index Administrator, such Index Commodities shall be ranked in accordance with the following ranking order, as determined by the Index Administrator:

- (i) CL;
- (ii) LCO;
- (iii) NG;
- (iv) LGO;
- (v) RB; and
- (vi) HO.

(f) Calculating the Z-score

On each Index Selection Day, the Index Administrator shall calculate the Z-score in respect of each Eligible Index Commodity in respect of such Index Selection Day as an amount equal to the quotient of:

- (i) (a) the Spread Signal in respect of such Eligible Index Commodity in respect of such Index Selection Day; minus
 - (b) the aggregate in respect of such Eligible Index Commodity in respect of each Index Selection Day from and including such Index Selection Day to and including the Index Selection Day which is the eleventh Index Selection Day immediately preceding such Index Selection Day, of the quotient of:
 - (1) the Spread Signal in respect of the Eligible Index Commodity in respect of the Index Selection Day (as numerator); and
 - (2) 12 (as denominator); and
- (ii) in respect of such Eligible Index Commodity in respect of each Index Selection Day from and including such Index Selection Day to and including the Index Selection Day which is the tenth Index Selection Day immediately preceding such Index Selection Day, the standard deviation of:

- (a) the Spread Signal in respect of such Eligible Index Commodity in respect of such Index Selection Day; minus
- (b) the Spread Signal in respect of such Eligible Index Commodity in respect of the Index Business Day immediately preceding such Index Selection Day.

Expressed as a formula:

$$Z_i(s) = \frac{SS_i(s) - \frac{1}{s-10} \sum_{t=s}^{s-11} SS_i(t) / 12}{STDEV(SS_i(t) - SS_i(t-1))_{t=s}^{s-10}}$$

Where:

SS_i(s) means the Spread Signal in respect of such Eligible Index Commodity in respect of such Index Selection Days;

SS_i(t) means in respect of an Index Selection Day t and an Eligible Index Commodity, the Spread Signal in respect of such Eligible Index Commodity in respect of such Index Selection Day t;

SS_i(t-1) means in respect of an Index Selection Day and an Eligible Index Commodity, the Spread Signal in respect of such Eligible Index Commodity in respect of the Index Selection Day immediately preceding such Index Selection Day;

Z_i(s) means, in respect of an Eligible Index Commodity and an Index Selection Day, the Z-score in respect of such Eligible Index Commodity in respect of such Index Selection Day; and

STDEV(SS_i(t) - SS_i(t-1))_{t=s}^{s-10} means the standard deviation in respect of such Eligible Index Commodity in respect of each Index Selection Day, from and including such Index Selection Day to and including the Index Selection Day which is the tenth Index Selection Day immediately preceding such Index Selection Day, as calculated by the Index Administrator in accordance with the following formula:

$$STDEV(SS_i(t) - SS_i(t-1))_{t=s}^{s-10} = \sqrt{\frac{\sum_{i=s}^{s-10} (SS_i(t) - SS_i(t-1))^2 - \frac{1}{11} \left(\sum_{i=s}^{s-10} (SS_i(t) - SS_i(t-1)) \right)^2}{10}}$$

(g) Calculating the Spread Signal

On each Index Selection Day the Index Administrator shall calculate the Signal Spread in respect of each Eligible Index Commodity as an amount equal to:

- (i) the quotient of:
 - (a) the Forecast Price in respect of such Eligible Index Commodity in respect of such Index Selection Day (as numerator); and
 - (b) the Average Quarterly Futures (AQF) Price in respect of such Eligible Index Commodity in respect of such Index Selection Day (as denominator); minus
- (ii) 1.00.

Expressed as a formula:

$$SS_i(s) = (Forecast_i(s) / AQF_i(s)) - 1$$

Where:

- AQF_i(s)** means, in respect of an Index Selection Day and an Eligible Index Commodity, the Average Quarterly Futures (AQF) Price in respect of such Eligible Index Commodity in respect of such Index Selection Day;
- Forecast_i(s)** means, in respect of an Index Selection Day and an Eligible Index Commodity, the Forecast Price in respect of such Eligible Index Commodity in respect of such Index Selection Day; and
- SS_i(s)** means, in respect of an Index Selection Day and an Eligible Index Commodity, the Spread Signal in respect of such Eligible Index Commodity in respect of such Index Selection Day.

(h) Determination of Eligible Index Commodities

In order to determine the Eligible Index Commodities (the “**Eligible Index Commodities**”) in respect of an Index Selection Day, the Index Administrator shall undertake to conduct Annual Reviews and Monthly Reviews in respect of the Index Commodities in accordance with the Annual Review and Monthly Review sections below, as applicable.

(i) Annual Review

In respect of each Index Selection Day falling in December, the Index Administrator shall, on the fifth Index Business Day immediately succeeding such Index Selection Day, determine the Initial Annual Eligible Commodities in respect of the Index in respect of the immediately following calendar year (the “**Annual Review**”) where “**Initial Annual Eligible Commodities**” means, in respect of an Index Selection Day falling in December, an Index Commodity in which the number of analysts contributing Rolled Forecast Prices as of the Index Selection Days in at least six months of the calendar year in which such Index Selection Day falls is greater than or equal to five, as determined by the Index Administrator.

If the number of such Initial Annual Eligible Commodities is less than four the Index Administrator shall include such other Index Commodities as necessary so that there are four such Index Commodities in accordance with the following ranking order (including for the avoidance of doubt, any that are missing so that, for example, if only three Index Commodities being CL, NG and LGO were included in the Initial Annual Eligible Commodities, LCO would be included in the Initial Annual Eligible Commodities) as determined by the Index Administrator for:

- (a) CL;
- (b) LCO;
- (c) NG;
- (d) LGO;
- (e) RB; and
- (f) HO,

and such Index Commodities shall comprise the Annual Eligible Commodities (the “**Annual Eligible Commodities**”).

(ii) Monthly Review:

On each Index Selection Day, the Index Administrator shall undertake to review each Annual Eligible Commodity in respect of such Index Selection Day to determine whether there has been a minimum of three analysts contributing to the mean forecast price in respect of such Annual Eligible Commodity in respect of the immediately preceding Index Selection Day (the “**Three Analyst Requirement**”) and such review the “**Monthly Review**”). The Three Analyst

Requirement will be deemed satisfied in respect of an Index Selection Day and an Annual Eligible Commodity where an update has occurred in respect of the "last_update_dt" Bloomberg field in respect of the Bloomberg Tickers in respect of each Annual Eligible Commodity, as determined by the Index Administrator. If the Three Analyst Requirement in respect of such Index Selection Day is not satisfied then such Annual Eligible Commodity shall not to be an Eligible Index Commodity in respect of such Index Selection Day.

(i) Miscellaneous

The Index Level in respect of each Index Business Day shall be calculated to six decimal places with 0.0000005 being rounded upwards (such level being the **Calculated Index Level** in respect of such Index Business Day) and published to four decimal places with 0.00005 being rounded upwards, as set out in the section headed "Index Publication" below. The Index Administrator shall make available the Calculated Index Level in respect of each Index Business Day (including, for the avoidance of doubt, if requested, any historical Calculated Index Levels) on application to DBIQ at the Index Administrator's principal office in London for the time being at Winchester House, 1 Great Winchester Street, London EC2N 2DB.

The methodology described in this Section 4 (*Index Calculation*) is subject to the provisions set out in Section 6 (*Disruption Events*) and Section 7 (*Adjustment Provisions*).

5. Index Publication

(a) Availability of Index Levels and Adjustments

The Index Administrator will make available (a) the Index Level in respect of the Index in respect of each Index Business Day as soon as reasonably practicable after the Index Valuation Time on such Index Business Day and (b) details of any adjustments made to the Index, in each case, on application to DBIQ at the Index Administrator's principal office in London for the time being at Winchester House, 1 Great Winchester Street, London EC2N 2DB.

In addition, the Index Level and details of any changes to any Relevant Exchange and consequential changes as a result thereof will be available on the DBIQ Website (or any successor sources that the Index Administrator shall elect from time to time).

(b) Corrections and/or Recalculations

In the event that any price or level published on any date which is utilised for any calculation or determination in respect of the Index is subsequently corrected and/or recalculated in accordance with its terms or description (as the case may be), or the Index Administrator identifies an error or omission in any of its calculations or determinations in respect of the Index, the Index Administrator may, in its sole discretion adjust or correct any relevant terms, calculations or determinations in respect of the Index to take into account such correction(s), recalculation(s), error(s) or omission(s) (as the case may be) but is not obliged to do so.

(c) Miscellaneous

Any publication described in this Section 5 (*Index Publication*) may be restricted by means determined as appropriate for such purpose by the Index Administrator in its sole and absolute discretion including, but not limited to, password protection on the DBIQ Website restricting access to a limited set of persons in accordance with arrangements agreed between the Index Administrator and such persons.

The Index Administrator may, at any time and without notice, change with respect to the Index the place of publication of the Index Level.

The Index Administrator may, at any time and without notice, change the frequency of publication of the Index Level.

The Index Administrator accepts no legal liability to any person for publishing or not continuing to publish for any period of time any Index Level at any particular place or any particular time.

In the event of any ambiguity in, or dispute about the meaning of, any of the provisions of this Index Description, the Index Administrator shall, in its sole and absolute discretion, construe

the relevant provision(s) in order to determine the correct interpretation thereof, and the decision of the Index Administrator shall be final.

6. DISRUPTION EVENTS

(a) General

Disruption Event means, in respect of the Index and an Index Business Day, an event that would require the Index Administrator to calculate the Index on an alternative basis were such event to occur or exist on such day, all as determined by the Index Administrator in its sole and absolute discretion.

Without limitation, each of the following may be a Disruption Event if so determined by the Index Administrator in its sole and absolute discretion:

- (i) the Index Administrator determines that a Sub-Index Level in respect of a Sub-Index is not published within the scheduled or usual timeframe for publication in respect of an Index Business Day;
- (ii) the relevant Relevant Exchange fails to calculate and announce the Price in respect of a Futures Contract in respect of a Sub-Index, invested in such Sub-Index as per the contract schedule given in the BCOM Methodology on the relevant Index Business Day;
- (iii) the relevant index sponsor (howsoever described) in respect of Sub-Index, fails to calculate and announce the relevant level in respect of the relevant Sub-Index on the relevant Index Business Day;
- (iv) trading in the relevant futures contract or options in respect of such futures contract, in each case, in respect of a relevant Sub-Index is subject to material suspension or material limitation or the Relevant Exchange or relevant index sponsor (howsoever described) in respect of a Sub-Index, in respect of such futures contract or options in respect of such futures contract is not open for trading for any reason (including a scheduled closure);
- (v) the permanent discontinuation of trading in the relevant futures contract or options in respect of such futures contract, in each case, in respect of a relevant Sub-Index;
- (iv) the permanent discontinuation of publication of the relevant Sub-Index;
- (v) any event in connection with which the Index Administrator is (or would be) unable to calculate the relevant Index level after using commercially reasonable efforts;
- (vi) in respect of a relevant Related Index Commodity and the Relevant Exchange in respect of such Related Index Commodity, a suspension or limitation imposed on trading by such Relevant Exchange or otherwise, including, without limitation, where such suspension or limitation is imposed by reason of movements in Price reaching or exceeding limits permitted by such exchange, as determined by the Index Administrator (a "**Limit Event**").
- (vii) Price Source Disruption:
 - (a) the relevant price source in respect of relevant futures contract or underlying commodity is temporarily or permanently discontinued, unavailable or not announced or published thereby preventing or restricting the availability of the information necessary for determining the Index; or
 - (b) following the application of the Processes in relation to any data obtained from the relevant price source in respect of relevant futures contract or underlying commodity, the Index Administrator determines in good faith and a commercially reasonable manner that such data does not accurately and reliably represent the interest purported to be measured by that data ; or
- (viii) Bloomberg fails to publish the relevant Forecast Price of any Eligible Index Commodity or the occurrence of either of the events specified in Section 4(d)(vi) above (each a "**Forecast Price Event**").

(b) Consequences of Limit Event Disruption

If a Limit Event in respect of a relevant futures contract in respect of a relevant Sub-Index occurs on any Index Business Day, the Index Administrator may make the following adjustments and/or determinations in relation to the calculation of the relevant Index level in respect of such Index Business Days:

- (i) the Index Level will be calculated using published levels of the relevant future prices and or the relevant Sub-Index on such Index Business Days; and/or;
- (ii) if an Index Rebalancing Day has occurred with respect to the Index during such Limit Event and if at least one of the disrupted futures contract is invested in the relevant Sub-Index, following the end of the Limit Event the relevant Sub-Index Level will be recalculated using the Price immediately following the Limit Event of the relevant futures contract in respect of the relevant Sub-Index. Index Levels and corresponding Notional Holdings in the relevant Sub-Index from (and including) the Index Business Day immediately following such a Limit Event will be based on the recalculated levels of the relevant Sub-Index.

(c) Consequences of Forecast Price Event Disruption

If a Forecast Price Event in respect of an Eligible Index Commodity occurs on any Index Business Day, the Index Administrator may make the following adjustments and/or determinations in relation to the calculation of the relevant Index level in respect of such Index Business Days:

- (i) the Index Level will be calculated using the Forecast Price of the Eligible Index Commodity in respect of the immediately preceding Index Business Day on which a Forecast Price was published, as determined by the Index Administrator; provided that where any such Forecast Price Event occurs and continues for a period of thirty (30) consecutive Index Business Days, then the Index Administrator may:
 - (a) calculate and publish the Index Level relating to each Index Business Day falling in or after such period having regard to the then prevailing market conditions, the last reported price, value, rate or level of any instrument relating to the Index and such other factor(s) and condition(s) that the Index Administrator considers relevant for the purpose of determining such Index Levels including, but not limited to, any modifications that the Index Administrator determines to be appropriate in relation to reconstitution relating to the Index; and/or
 - (b) permanently cease to calculate and publish the relevant Index Level as of the Index Business Day following the last Index Business Day for which the Index Administrator calculated and published the relevant Index Level in accordance with sub-section (i) above (if any) and, in each case, as applicable, such Index shall terminate; and/or
- (ii) if a Forecast Price Event occurs with respect to Forecast Price of any commodity, the Index Administrator, in its sole and absolute discretion, shall make any such appropriate adjustments to the universe of Index Commodities.

(d) Consequences of Disruption Events that are not Limit Events or Forecast Price Events

If a Disruption Event in respect of the Index or a Sub-Index occurs or subsists on an Index Business Day, that in the determination of the Index Administrator prevents or otherwise affects its determinations with respect to the Index Level or Sub-Index Level, as applicable, or any other relevant value that requires determination or calculation by the Index Administrator in relation to such Index Business Day, then:

- (i) first, the Index Administrator may make such adjustments and/or determinations in relation to the Index (including, but not limited to, this Index Description) and any relevant value as it may determine, in its sole and absolute discretion, appropriate to facilitate the calculation and publication of the Index Level in respect of such Index Business Day;

- (ii) secondly, if the Index Administrator determines that any such adjustment or determination referred to in sub-section (i) above cannot be made on such Index Business Day, then the Index Administrator may defer calculation and publication of the Index Level until the next Index Business Day on which the Index Administrator determines, in its sole and absolute discretion, that no Disruption Event exists in respect of the Index provided that where any such deferral of calculation and publication continues for a period of ten consecutive Index Business Days, then the Index Administrator may:
 - (a) calculate and publish the Index Level relating to each Index Business Day falling in or after such period having regard to the then prevailing market conditions, the last reported price, value, rate or level of any instrument relating to the Index and such other factor(s) and condition(s) that the Index Administrator considers relevant for the purpose of determining such Index Levels including, but not limited to, any modifications that the Index Administrator determines to be appropriate in relation to reconstitution relating to the Index; and/or
 - (b) permanently cease to calculate and publish the relevant Index Level as of the later of (x) the date when such Disruption Event commenced or (y) the Index Business Day following the last Index Business Day for which the Index Administrator calculated and published the relevant Index Level in accordance with sub-section (i) above (if any) and, in each case, as applicable, such Index shall terminate.

(e) Force Majeure Event

If a Force Majeure Event occurs on an Index Business Day, the Index Administrator may, in its sole and absolute discretion:

- (i) make such determinations and/or adjustments to the terms contained in this Index Description as it considers appropriate to determine the relevant Index Level in respect of such Index Business Day; and/or
- (ii) defer publication of the relevant Index Level in respect of such Index Business Day until the next Index Business Day on which it determines that no Force Majeure Event exists; and/or
- (iii) permanently cancel publication of the relevant Index Level.

(f) Hedging Disruption Event

If the Index Administrator determines that it and/or any of its Affiliates would be unable, after using commercially reasonable efforts, to: (a) acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction(s) or asset(s) it deems necessary to hedge its position in relation to any securities issue, financial instrument or other relevant financial transaction relating to or calculated by reference to an Index; or (b) realise, recover or remit the proceeds of any such transaction(s) or asset(s) has occurred or exists on an Index Business Day, the Index Administrator may, in its sole and absolute discretion:

- (i) make such determinations and/or adjustments to the terms contained in this Index Description as it considers appropriate to determine the relevant Index Level in respect of such Index Business Day; and/or
- (ii) defer publication of the relevant Index Level in respect of such Index Business Day until the next Index Business Day on which it determines that no Hedging Disruption Event exists; and/or
- (iii) permanently cancel publication of the relevant Index Level.

(g) Overview

Any such adjustments and/or determinations or decisions to permanently cease to calculate and publish an Index Level in respect of the Index pursuant to sub-Sections 6(b), (c), (d), (e) or (f) shall be made by the Index Administrator as far as reasonably practicable in accordance with Section 10 (*Changes to and Retiring a Benchmark*) of the Overview.

7. ADJUSTMENT PROVISIONS

Change in methodology

In calculating and determining the value of the Index, the Index Administrator will, subject as provided below, employ the methodology described herein and its application of such methodology shall be conclusive and binding. While the Index Administrator currently employs the above described methodology to calculate the Index, no assurance can be given that market, regulatory, judicial, financial, fiscal or other circumstances (including, but not limited to, any changes to or any suspension or termination of any constituent of the Index or any other events affecting transactions on the same or similar terms to any described herein) will not arise that would, in the view of the Index Administrator, necessitate or make desirable a modification of or change to such methodology.

Accordingly:

- (i) The Index Administrator shall be entitled to make such modifications and/or changes as it deems appropriate, including (without limitation):
 - (a) to correct any manifest error or proven error contained in the methodology described herein; and/or
 - (b) to cure, correct or supplement any defective provision contained in the methodology described herein; and/or
 - (c) if market, regulatory, juridical, financial, fiscal or other circumstances arise, and such circumstances would, in the determination of the Index Administrator, necessitate or make desirable such a modification or change of the methodology described herein (including, but without limitation, a change in the frequency of calculation of any Index Level) in order for the Index to continue being calculated and determined notwithstanding the relevant circumstances. In deciding what is necessary the Index Administrator will consider and/or take into account what the Index Administrator determines to be the intended strategy of the Index;
- (ii) Further, and without limitation to the above provisions, the Index Administrator shall be entitled to make such modifications and/or changes as it deems appropriate:
 - (a) to preserve the intended strategy of the Index, where such modification and/or change is of a formal, minor or technical nature; and/or
 - (b) if market, regulatory, juridical, financial, fiscal or other circumstances arise, and in the determination of the Index Administrator, such modifications and/or changes would assist in maintaining the intended strategy of the Index and/or would ensure that the Index can continue to be calculated and determined by the Index Administrator in light of such circumstances.

In making such modifications however the Index Administrator will:

- (i) ensure that such modifications or changes pursuant to (i) or (ii) above will result in a methodology that is consistent in its intended commercial purpose with the methodology described in this Index Description; and
- (ii) limit any such modification or change to the terms of the Index and/or method of calculating the Index Level.

The Index Administrator may, in its discretion, at any time and without notice, terminate the calculation and publication of the Index pursuant to Section 10.2 (*Benchmark Retirement*) of the Overview.

The Overview sets out the process for making changes to its benchmarks as a general matter and the internal oversight and approval process that DBIQ will go through. It also sets out DBIQ's procedures for consulting on and notifying changes. Any such modification or change in methodology described in this Description shall be made in accordance with Section 10.1 (*Change to a Benchmark*) of the Overview.

8. CONFLICT OF INTEREST

Conflicts of interest may exist or arise between the Index Administrator and Deutsche Bank entities acting in other capacities, including as Administrator for the Index, as counterparty to a transaction or as contributor of forecasts that feed into the calculation of the index. Each relevant Deutsche Bank entity will pursue actions and take steps that it deems appropriate to protect its own interests without regard to the consequences for investors in respect of any investment or instrument linked or relating to the Index or otherwise.

Deutsche Bank entities shall be entitled to receive fees or other payments pursuant to investments or instruments linked or relating to the Index or otherwise and to exercise all rights, including rights of termination or resignations, which they may have, even though doing so may have a detrimental effect on investors in any investment or instrument linked or relating to the Index

Annex 1

Nearby Futures Contracts

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Index Commodity												
LCO	G+	G+	K+	K+	K+	Q+	Q+	Q+	X+	X+	X+	G++
LGO	N	N	N	V	V	V	F+	F+	F+	J+	J+	J+
HO	Q	Q	Q	X	X	X	G+	G+	G+	K+	K+	K+
RB	N	N	N	V	V	V	F+	F+	F+	J+	J+	J+
NG	N	N	N	V	V	V	F+	F+	F+	J+	J+	J+
CL	G+	G+	G+	K+	K+	K+	Q+	Q+	Q+	X+	X+	X+

One Month Forward Futures Contracts

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Index Commodity												
LCO	H+	H+	M+	M+	M+	U+	U+	U+	Z+	Z+	Z+	H++
LGO	Q	Q	Q	X	X	X	G+	G+	G+	K+	K+	K+
HO	U	U	U	Z	Z	Z	H+	H+	H+	M+	M+	M+
RB	Q	Q	Q	X	X	X	G+	G+	G+	K+	K+	K+
NG	Q	Q	Q	X	X	X	G+	G+	G+	K+	K+	K+
CL	H+	H+	H+	M+	M+	M+	U+	U+	U+	Z+	Z+	Z+

Two Month Forward Futures Contracts

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Index Commodity												
LCO	J+	J+	N+	N+	N+	V+	V+	V+	F++	F++	F++	J++
LGO	U	U	U	Z	Z	Z	H+	H+	H+	M+	M+	M+
HO	V	V	V	F+	F+	F+	J+	J+	J+	N+	N+	N+
RB	U	U	U	Z	Z	Z	H+	H+	H+	M+	M+	M+
NG	U	U	U	Z	Z	Z	H+	H+	H+	M+	M+	M+
CL	J+	J+	J+	N+	N+	N+	V+	V+	V+	F++	F++	F++

Annex 2

Month Index Commodity	<u>Schedule for variable "X"</u>											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
LCO	Q1+	Q1+	Q1+	Q2+	Q2+	Q2+	Q3+	Q3+	Q3+	Q4+	Q4+	Q4+
LGO	Q3	Q3	Q3	Q4	Q4	Q4	Q1+	Q1+	Q1+	Q2+	Q2+	Q2+
HO	Q3	Q3	Q3	Q4	Q4	Q4	Q1+	Q1+	Q1+	Q2+	Q2+	Q2+
RB	Q3	Q3	Q3	Q4	Q4	Q4	Q1+	Q1+	Q1+	Q2+	Q2+	Q2+
NG	Q3	Q3	Q3	Q4	Q4	Q4	Q1+	Q1+	Q1+	Q2+	Q2+	Q2+
CL	Q1+	Q1+	Q1+	Q2+	Q2+	Q2+	Q3+	Q3+	Q3+	Q4+	Q4+	Q4+

Annex 2
Description of the Deutsche Precious Metals Fundamental Fair Value USD ER Index

Deutsche Bank



**Description of the Deutsche Bank Precious Metals Fundamental Fair Value USD ER
Index™**

Date: 12 June 2018

Version: 2

In the event of any inconsistency between the English language version of the text below and that which may be translated into any other language, the English language version shall prevail. Terms used herein have the meaning given to them in Section 3 (*Definitions*).

All determinations of the Index Administrator described herein shall be made according to the terms set out herein and, save for manifest error, shall be final and binding on all parties.

The Index Administrator is not obliged to enter into, or promote, transactions or investments that are linked to the Index.

Subject as required by law, the Index Administrator is under no obligation to maintain or calculate the Index and may cancel or cease to calculate the Index at any time without notice.

The Index Administrator does not assume any obligation or duty to any party and under no circumstances does the Index Administrator assume any relationship of agency or trust or of a fiduciary nature for or with any party. Any calculations or determinations in respect of the Index or any part thereof shall be made by the Index Administrator acting reasonably and in good faith and shall (save in the case of manifest error) be final, conclusive and binding. The term "manifest error" as used herein shall mean an error that is plain and obvious and can be identified from the results of the calculation or determination itself without: (i) recourse to any underlying data; or (ii) any application or re-application of any formulae.

The Index Administrator may delegate and/or transfer any of its obligations and/or functions to one or more third parties as it deems appropriate from time to time.

The Index Administrator makes no express or implied representations or warranties as to (a) the advisability of purchasing or assuming any risk in connection with any transaction which references or is otherwise linked to this Index, (b) the levels at which the Index stands at any particular time on any particular date, (c) the results to be obtained by any party from the use of the Index or any data included in it for the purposes of issuing securities or carrying out any financial transaction or (d) any other matter. Calculations may be based on information obtained from various publicly available sources. The Index Administrator has relied on these sources and has not independently verified the information extracted from these sources and accepts no responsibility or liability in respect thereof. If there is a calculation error the Index Administrator may restate the Index Level.

Without limiting any of the foregoing, in no event shall the Index Administrator have any liability (whether in negligence or otherwise) to any person in connection with such person's unauthorised use of the Index. "Unauthorised use" shall be construed as any use of the Index except where such use is pursuant to a transaction between a party and Deutsche Bank AG in respect of the Index.

Without limiting any of the foregoing, where use of the Index by a party is pursuant to a transaction between that party and Deutsche Bank AG, in no event shall the Index Administrator have any liability to any person except where such liability arises from the Index Administrator's wilful default, negligence resulting from a breach of material obligations only, or gross negligence in all other respects.

Nothing herein shall be taken to exclude any liability for fraud on the part of the Index Administrator.

Without prejudice to the foregoing, in no event shall the Index Administrator have any liability for any indirect, special, punitive or consequential damages (provided that any such damage is not reasonably foreseeable) even if notified of the possibility of such damages.

Conflicts of Interest

Conflicts of interest may exist or arise between the Index Administrator and Deutsche Bank entities acting in other capacities, including as Administrator for the Index or as counterparty to a transaction or as contributor of forecasts that feed into the

calculation of the index. Each relevant Deutsche Bank entity will pursue actions and take steps that it deems appropriate to protect its own interests without regard to the consequences for investors in respect of any investment or instrument linked or relating to the Index or otherwise.

Deutsche Bank entities shall be entitled to receive fees or other payments pursuant to investments or instruments linked or relating to the Index or otherwise and to exercise all rights, including rights of termination or resignations, which they may have, even though doing so may have a detrimental effect on investors in any investment or instrument linked or relating to the Index.

Trading and other transactions by Deutsche Bank AG or its affiliates

Deutsche Bank AG and/or its affiliates may hedge its obligations under any relevant instruments or financial products linked to the Index by purchasing or selling securities and other assets, or listed or over-the-counter options, futures, swaps or other derivative financial instruments underlying or linked to the Index. Although they are not expected to, any of these hedging activities may adversely affect the value of such assets, and therefore the Index Level or the value of any relevant instruments or financial products linked to the returns from these hedging activities while the level of the Index and/or relevant instruments or financial products linked to the Index declines.

Deutsche Bank AG and/or its affiliates may also engage in trading in securities and other assets, or listed or over-the-counter options, futures, swaps or other derivative financial instruments underlying or linked to the Index on a regular basis as part of their general broker-dealer and other businesses, for proprietary accounts, for other accounts under management or to facilitate transactions for customers. Any of these activities could adversely affect the value of such assets, and therefore the Index Level or the value of any relevant instruments or financial products linked to the Index. With respect to any of these activities, neither Deutsche Bank AG nor any of its affiliates has any obligation to take the level of the Index into consideration at any time.

Bloomberg Disclaimer

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customers, in connection with the administration, marketing or trading of the Product(s). Notwithstanding the foregoing, UBS AG, UBS Securities and their respective subsidiaries and affiliates may independently issue and/or sponsor financial products unrelated to the Products currently being issued by Licensee, but which may be similar to and competitive with the Products. In addition, UBS AG, UBS Securities and their subsidiaries and affiliates actively trade commodities, commodity indexes and commodity futures, as well as swaps, options and derivatives which are linked to the performance of such commodities, commodity indexes and commodity futures. It is possible that this trading activity will affect the value of the Bloomberg Commodity Index and Products.

This document is referred to as the **Index Description** and consists of the following Sections:

Section:	Page
1. Introduction to the Index	3
2. Index Risk Factors	4
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4. Index Calculation	10
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6. Disruption Events	15
7. Adjustment Provisions	18

The Deutsche Bank Precious Metals Fundamental Fair Value USD ER Index (the **Index**) is a Deutsche Bank AG proprietary index. The Index is the intellectual property of Deutsche Bank AG (**Deutsche Bank AG** or the **Index Owner**, which expression shall include any successor in such capacity). The Index Owner owns the copyright and all other intellectual property rights in the Index and this Index Description. Any use of these intellectual property rights must be with the prior written consent of the Index Owner.

The Index will be governed by the Index Administrator (as defined below). The initial Index Administrator shall be Deutsche Bank AG operating through Deutsche Bank Index Quant (**DBIQ**), a research unit within Deutsche Bank AG via its internal processes and the **Index Administrator** shall mean Deutsche Bank AG acting in such capacity or any successor thereto. The Index Administrator controls the creation and operation of the Index administrative process, including all stages and processes involved in the production and dissemination of the Index. Notwithstanding that the Index relies on information from third party sources, the Index Administrator has primary responsibility for all aspects of the Index administration and determination process.

The Index Administrator has implemented and maintains the DBIQ User Guidance and Administrator Handbook Overview (the **Overview**), which sets out a summary of the policies, procedures and controls implemented by the management of the Index Administrator to promote sound business practices for the lifecycle management of the Index Owner's proprietary benchmarks by the Index Administrator. The Overview also includes the Index Administrator's policy related to quality of benchmarks and input data management. Additional issues related to governance, controls, benchmark classification and risk controls, restatement and calculation error management, periodic reviews and conflicts of interest are also addressed. The Overview does not form part of this Index Description or of any document into which this Index Description may be incorporated.

1. INTRODUCTION TO THE INDEX

This section summarises a number of features of the Index. This section should be read as a summary introduction to the Index Description but is no substitute for reviewing the Index Description in full. Capitalised terms not otherwise defined shall have the meanings given in Section 3 (Definitions).

The Index to which this Index Description relates is owned by the Index Owner and is administered by the Index Administrator. Certain key features of the Index are as follows:

- The Index tracks a rules-based strategy notionally investing in commodity sub-indices by taking a nominal long or short position based on the relative undervaluation or overvaluation of the futures' prices.
- The Index Level will, subject as provided below, be calculated in respect of each Index Business Day by the Index Administrator and may be used in connection with one or more financial products (each a **Financial Product**) relating to the Index. The Financial Products may be issued or entered into by Deutsche Bank AG, London Branch or other financial product providers. Each investor in relation to Financial Products is referred to as a **Financial Product Investor**.
- Although the Index Administrator will obtain information for inclusion in or for use in the calculation of the Index from sources which the Index Administrator considers reliable, the Index Administrator will not independently verify such information and does not guarantee the accuracy and/or the completeness of the Index or any data included in the Index. The Index Administrator shall not be liable (whether in negligence or otherwise) to any person for any error in the Index and the Index Administrator is under no obligation to advise any person of any error therein.
- All determinations referred to below will be made by the Index Administrator by reference to such factors as it deems appropriate and such determinations will, save for manifest error, be binding on all parties.
- The Index is "notional" in nature. This means that the Index Administrator is not obliged to enter into transactions in respect of each commodity future in order to calculate the Index.
- The Index contains Disruption Event provisions which apply when events require the Index Administrator to calculate the Index on an alternative basis were such event to occur or exist on such day, as described in Section 6 (*Disruption Events*) below. If a Disruption Event occurs, the Index Administrator may make such adjustments and/or determinations in relation to the Index as it may determine, in its sole and absolute discretion, appropriate to facilitate the calculation and publication of the Index Level or, if such adjustment or calculation cannot be made, defer calculation and publication of the Index Level and, in some cases, permanently cease to calculate the Index. These events may have an adverse effect on Financial Product Investors. Index Levels which are calculated following any such delay may give different economic results in relation to the Financial Products than the Index Levels which would have prevailed but for such delay. If the Index is cancelled or adjusted, this may lead to the calculation agent in respect of a Financial Product taking action under provisions of the Financial Product which may have an adverse effect on Financial Product Investors.
- The Index contains Adjustment Event provisions which entitle the Index Administrator to make such modifications and/or changes in its reasonable discretion deems appropriate, as described in Section 7 (*Adjustment Provisions*) below. If market, regulatory, judicial, financial, fiscal or other circumstances arise that would, in the determination of the Index Administrator, necessitate or make desirable a modification or change to this Index Description in order for the Index to continue to be calculated and determined notwithstanding the relevant circumstances, the Index Administrator may make such modifications or changes.
- This Section 1 (*Introduction to the Indices*) is subject to and qualified by the remainder of this Index Description.
- The Index Level will be expressed in the Index Currency.

2. INDEX RISK FACTORS

The risk factors set out in this Section 2 (*Index Risk Factors*) are not a comprehensive list of all risks that might have an adverse effect on the value of the Index. When considering an investment in a Financial Product, prospective Financial Product

Investors should review carefully the whole of the Index Description and form their own decisions as to risks associated with the Index Administrator and the Index.

Risks relating to the Index

Volatility of Commodities: Trading in commodities is speculative and may be extremely volatile. Commodity prices are affected by a variety of factors that are unpredictable including, for example, changes in supply and demand relationships, weather patterns and extreme weather conditions, environmental disasters, governmental programmes and policies, national and international political, military, terrorist and economic events, fiscal, monetary and exchange control programmes and changes in interest and exchange rates. Commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, the participation of speculators and government regulation and intervention. These circumstances could also adversely affect prices of the relevant commodity. Therefore, commodity prices may be more volatile than other asset classes.

Commodity Futures: The price of a futures contract on a commodity will generally be at a premium or at a discount to the spot price of the underlying commodity. Accordingly, products linked to commodity futures contracts may provide a different return than products linked to the relevant physical commodity.

Index Rebalancing: Each Index is rebalanced and the weight assigned to each Sub-Index is adjusted with effect from each Rebalancing Day and remains fixed until the next Rebalancing Day. Therefore, any sudden changes (positive or negative) to a Sub-Index and the trend in respect of the performance of each Sub-Index in between Rebalancing Days will not be taken into consideration in calculating the Index Level until the next Rebalancing Day.

Index Administrator's Powers: The Index Administrator has a number of discretions in relation to an Index, which always have to be exercised in good faith and in a commercially reasonable manner. Nevertheless the exercise of these discretions may have a significant effect on Financial Products. In particular:

- If a Disruption Event occurs, the Index Administrator may make such adjustments and/or determinations in relation to the Index as it may determine, in its sole and absolute discretion, appropriate to facilitate the calculation and publication of the Index Level or postpone or cancel and permanently cease to calculate an Index. A Disruption Event may occur, amongst other things, as a result of the failure of trading to commence, or the permanent discontinuation of trading in any relevant futures contract.
- If market, regulatory, judicial, financial, fiscal or other circumstances arise that would necessitate or make desirable a modification or change to this Index Description, the Index Administrator may make such modifications or changes.

General risks

Multiple roles of Deutsche Bank Entities: Conflicts of interest may exist between the Index Owner, initial Index Administrator and Deutsche Bank AG, London Branch and its affiliates (each a **Deutsche Bank Entity**).

A Deutsche Bank Entity may also act as the issuer of, or an obligor under, a Financial Product and as a dealer, calculation agent or hedge provider in relation to a Financial Product. Various conflicts of interest might exist or arise as a result of these different roles as well as from the overall activities of Deutsche Bank Entities. Deutsche Bank AG has a regulatory obligation to take reasonable steps to manage such conflicts fairly. Such reasonable steps include information walls being maintained between the personnel of Deutsche Bank Entities involved in different roles. However, as with any set of systems and controls there is a risk that such information walls might not be effective in all cases.

No disclosure of information: Deutsche Bank Entities may be in possession at any time of information in relation to the Index which may not be available to Financial Product Investors. There is no obligation on any Deutsche Bank Entity to disclose to Financial Product Investors any such information.

Fees: Deutsche Bank Entities shall be entitled to receive fees or other payments and exercise all rights, including rights of termination or resignation, which they may have, even though this may have a detrimental effect on the Index and Financial Products.

Hedging Arrangements: The Index is calculated as a "notional" index. This means that the Index reflects the performance of notional commodity futures contracts as further outlined and detailed in each Sub-Index, but there is no requirement for the Index Administrator to enter into commodity futures contracts in relation to such commodity futures contracts in order to calculate the Index. Deutsche Bank Entities may enter into commodity futures contracts in order to meet obligations in respect of Financial Products or for any other purpose, but Deutsche Bank Entities are not required to do this. If they do, Deutsche Bank Entities will have certain rights pursuant to such futures contracts and will pursue actions and take steps that they deem appropriate to protect their own interests.

Political and Economic Factors: Commodity futures may be influenced by a number of circumstances, including but not limited to political events, general economic conditions, government intervention, changes in balances of payments and trade, domestic and international rates of inflation, international trade restrictions and currency devaluations. Any such circumstance (or a combination of them) may cause unexpected volatility or illiquidity in the commodity futures markets. This may have an adverse effect on Index Levels which may in turn have an adverse effect on the performance of Financial Products.

Future Regulatory Change in respect of commodity futures: Legal and regulatory changes could adversely affect commodity futures. In addition, many governmental agencies and regulatory organisations are authorised to take extraordinary actions in the event of market emergencies. The effect of any future legal or regulatory change on commodity futures is not possible to predict, but could be substantial and adverse.

Future Regulatory Change in respect of indices: Legal and regulatory changes could adversely affect indices including the Index or any Sub-Index. The effect of any future legal or regulatory change on indices may not be possible to predict, but could be substantial and adverse.

3. DEFINITIONS

Affiliate means, in respect of the Index Administrator, any entity controlled, directly or indirectly, by the Index Administrator, any entity that controls, directly or indirectly, the Index Administrator or any entity directly or indirectly under common control with the Index Administrator. For this purpose, **control** of any entity or person means ownership of a majority of the voting power of the entity or person.

Annual Eligible Commodities means each Index Commodity.

Average Quarterly Futures (AQF) Price means, in respect of an Index Commodity and an Index Selection Day, the Price of the futures contract identified by Contract Month in Annex 1 hereto corresponding to the calendar month in which such Index Selection Day falls and the Index Commodity, using the table headed "Nearby Futures Contracts", as determined by the Index Administrator.

Expressed as a formula:

$$AQF_i(s) = F_i(s,1)$$

Where:

$AQF_i(s)$	means, in respect of an Index Selection Day and an Index Commodity, the Average Quarterly Futures (AQF) Price in respect of the Index Commodity in respect of such Index Selection Day; and
$F_i(s,1)$	means, in respect of an Index Selection Day and an Index Commodity, the Price of the nearby futures contract identified by Contract Month in Annex 1 hereto corresponding to the calendar month in which such Index Selection Day falls

and the Index Commodity, using the table headed "Nearby Futures Contracts", as determined by the Index Administrator.

Base Weight means, in respect of:

- (i) Gold Subindex, 64.00 per cent. (expressed as 0.64); and
- (ii) Silver Subindex, 36.00 per cent. (expressed as 0.36).

BCOM Methodology means the Bloomberg Commodity Index Methodology published by UBS Securities LLC together with Bloomberg Finance L.P. dated February 2017 as may be amended, supplemented, replaced and/or restated from time to time.

Bloomberg means Bloomberg L.P. or any successor thereto.

Bloomberg Analyst Survey means, a prediction of commodity prices by analysts designated by Bloomberg.

Bloomberg Ticker means, in respect of:

- (i) GC, *METFGD "X" <Index>*; and
- (ii) SI, *METFSV "X" <Index>*,

in each case, as determined by the Index Administrator where "X" has the meaning given below in this Section 3 (*Definitions*).

Contract Month means, in respect of a Futures Contract, the contract month by which such Futures Contract is identified, as set out in Annex 1 hereto, as determined by the Index Administrator, where:

- (i) F means January;
- (ii) G means February;
- (iii) H means March;
- (iv) J means April;
- (v) K means May;
- (vi) M means June;
- (vii) N means July;
- (viii) Q means August;
- (ix) U means September;
- (x) V means October;
- (xi) X means November; and
- (xii) Z means December,

and, in each case a "+" following such letter shall mean the relevant month in the following calendar year.

DBIQ Website means <http://www.index.db.com>.

Eligible Index Commodity has the meaning given to such term in Section 4(h) (*Determination of Eligible Index Commodities*).

Final Weight has the meaning given to such term in Section 4(c) (*Calculating the Final Weight*).

Force Majeure Event means, in respect of the Index, an event or circumstance (including, without limitation, a systems failure, fire, building evacuation, natural or man-made disaster, act of God, armed conflict, act of terrorism, riot or labour disruption or any similar intervening circumstance) which is beyond the reasonable control of the Index Administrator and affects the Index, a Sub-Index, the Related Index Commodity in respect of such Sub-Index or an exchange instrument in respect of such Sub-Index or affects the ability of the Index Administrator to calculate or determine the Index.

Forecast Price means, on an Index Selection Day, in respect of an Eligible Index Commodity, the final forecast price of such Eligible Index Commodity in respect of such Index Selection Day as determined by the Index Administrator on such Index Selection Day by reference to the final Bloomberg Analyst Survey arithmetic mean as published with Bloomberg field "BN_Survey_Average" in respect of such Eligible Index Commodity in respect of such Index Selection Day which is published on the Bloomberg screen page under the Bloomberg Ticker in respect of such Eligible Index Commodity or any Successor Source, *provided that*, if such page is not available for any reason at such time on such Index Selection Day, then the forecast price in respect of such Eligible Index Commodity in respect of such Index Selection Day shall be the Rolled Forecast Price in respect of such Eligible Index Commodity in respect of such Index Selection Day, as determined by the Index Administrator.

Futures Contract means, in respect of an Index Selection Day and an Index Commodity, the futures contract identified by Contract Month in Annex 1 hereto corresponding to the calendar month in which such Index Selection Day falls and the Index Commodity, using the table headed "Nearby Futures Contracts" where such futures contract is a nearby futures contract.

Gold Subindex means the Bloomberg Gold Subindex as published on Bloomberg page .BCOMGC <Index> or any Successor Source thereto.

Index has the meaning given to such term on page 2 of this Index Description.

Index Administrator has the meaning given to such term on page 2 of this Index Description.

Index Business Day means:

- (i) prior to 1 January 2010, a day (other than a Saturday or Sunday) on which commercial banks and foreign exchange markets settle payments and are open for general business in New York City; and
- (ii) from and including 1 January 2010, a day (other than a Saturday or Sunday) which is not a holiday in respect of Commodities in the CME Group Chicago Trading Floor Holiday Schedule for the relevant year as published on the CME Group website or any Successor Source thereto.

Index Commencement Date means 3 January 2008.

Index Commodity means, each of:

- (i) Gold ("GC"); and
- (ii) Silver ("SI").

Index Currency means USD.

Index Description has the meaning given to such term on page 2 of this Index Description.

Index Level means, in respect of an Index Business Day, an amount, expressed in the Index Currency, being the closing level of the Index in respect of such Index Business Day, as determined by the Index Administrator in accordance with Section 4(b) (*Index Calculation on each Index Business Day*).

Index Selection Day means the first Index Business Day of each month.

Index Valuation Time means the time at which or in respect of which the Index Administrator calculates and publishes the official closing level of the Index.

Initial Index Level means 100.

Initial Notional Holding means, in respect of:

- (i) Gold Subindex, -0.548651; and
- (ii) Silver Subindex, 0.198736.

Intermediate Weight has the meaning given to such term in Section 4(d) (*Calculating the Intermediate Weights*).

Monthly Review has the meaning given to such term in Section 4(h)(i) (*Monthly Review*).

Notional Holding means, in respect of a Sub-Index and an Index Business Day:

- (vii) if such Index Business Day is not a Rebalancing Day, the Notional Holding in respect of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day (or, if such immediately preceding Index Business Day falls on the Index Commencement Date, the Initial Notional Holding in respect of such Sub-Index); and
- (viii) if such Index Business Day falls on a Rebalancing Day, an amount determined by the Index Administrator as the product of:
 - (i) the Final Weight in respect of the Index Selection Day immediately preceding such Rebalancing Day and such Sub-Index; and
 - (j) the quotient of:
 - (5) the Index Level in respect of such Index Business Day (as numerator); and
 - (6) the Sub-Index Level in respect of such Sub-Index in respect of such Index Business Day (as denominator).

Expressed as formula:

$$U(t, i) = w(s, i) * \frac{IL(t)}{ILO(t, i)}$$

Where:

- IL(t)** means, in respect of an Index Business Day, the Index Level in respect of such Index Business Day;
- ILO(t, i)** means, in respect of a Sub-Index and an Index Business Day, the Sub-Index Level in respect of such Sub-Index and such Index Business Day;
- U(t, i)** means, in respect of a Sub-Index and an Index Business Day, the Notional Holding in respect of such Sub-Index and such Index Business Day; and
- w(s, i)** means, in respect of an Index Business Day and a Sub-Index, the Final Weight in respect of the Index Selection Day immediately preceding such Rebalancing Day and such Sub-Index.

Price means, in respect of an Index Business Day and a Futures Contract, the official settlement price of such Futures Contract in respect of such Index Business Day as published by the Relevant Exchange in respect of such Futures Contract, as determined by the Index Administrator. If such official settlement price is not published by the Relevant Exchange on such Index Business Day, the Price in respect of such Futures Contract in respect of such Index Business Day shall be determined by the Index Administrator in good faith and a commercially reasonable manner.

Processes means the processes and controls set out in Section 8 (*Input Data Management*) of the Overview (or any successor publication and/or section of such publication that addresses the input data management policy of the Index Administrator).

Rebalancing Day means the second Index Business Day of each month from (but excluding) the Index Commencement Date.

Related Index Commodity means, in respect of a Sub-Index:

- (i) where the Sub-Index is the Gold Subindex, GC; and
- (ii) where the Sub-Index is the Silver Subindex, SI.

Relevant Exchange means, in respect of:

- (i) the Gold Subindex, the Commodity Exchange, Inc. CME Group; and
- (ii) the Silver Subindex, the Commodity Exchange, Inc. CME Group.

Rolled Forecast Price means, in respect of an Index Selection Day and an Eligible Index Commodity, the Forecast Price of the Eligible Index Commodity Index in respect of the immediately preceding day (other than a Saturday or Sunday) on which a Forecast Price was published, as determined by the Index Administrator.

Silver Subindex means the Bloomberg Silver Subindex as published on Bloomberg page *.BCOMSI <Index>* or any Successor Source thereto.

Spread Signal means has the meaning given to such term in Section 4(g) (*Calculating the Spread Signal*).

Sub-Index means, each of:

- (i) the Gold Subindex; and
- (ii) the Silver Subindex.

Sub-Index Level means, in respect of each Sub-Index and an Index Business Day, the official closing level of such Sub-Index in respect of such Index Business Day as calculated and published by the relevant index sponsor of such Sub-Index as determined by the Index Administrator.

Successor Source means, in relation to any display page, other published source, information vendor or provider:

- (i) the successor display page, other published course, information vendor or provider that has been officially designated by the sponsor of the original page or source; or
- (ii) if the sponsor of the original page or source has not officially designated a successor display page, other published source, service or provider (as the case may be), the successor display page, other published source, service or provider, if any, designated by the relevant information vendor or provider (if different from such sponsor).

USD means United States dollars.

X means, in respect of an Index Selection Day and an Index Commodity, the quarter for which the Forecast Price or Rolled Forecast Price, as applicable, is considered in respect of the Relevant Bloomberg Analyst Survey in respect of the Index Commodity in respect of such Index Selection Day as specified in respect of such Index Commodity in the table entitled "Schedule for variable 'X'" at Annex 2 hereto as determined by the Index Administrator and, in each case, a "+" following such quarter shall mean the relevant quarter in the calendar year following such Index Selection Day.

Z-score has the meaning given to such term in Section 4(f) (*Calculating the Z-score*).

4. INDEX CALCULATION

(a) Index Calculation on the Index Commencement Date

The Index is deemed to have been established on the Index Commencement Date.

The Index Level in respect of the Index Commencement Date was equal to the Initial Index Level.

The Index has been calculated back to the Index Commencement Date.

(b) Index Calculation on each Index Business Day

The Index Level on each Index Business Day from (but excluding) the Index Commencement Date shall be an amount (in the Index Currency) calculated by the Index Administrator as the sum of:

- (i) the Index Level in respect of the Index Business Day immediately preceding such Index Business Day (or, if such immediately preceding Index Business Day falls on the Index Commencement Date, the Initial Index Level); and
- (ii) the aggregate in respect of each Sub-Index of the product of:
 - (a) (1) the Sub-Index Level in respect of such Sub-Index and such Index Business Day; minus

- (2) the Sub-Index Level in respect of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day; and
- (b) the Notional Holding in respect of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day (or, if such immediately preceding Index Business Day falls on the Index Commencement Date, the Initial Notional Holding in respect of such Sub-Index).

Expressed as a formula:

$$IL(t) = IL(t - 1) + \sum_{i=1}^2 (ILO(t, i) - ILO(t - 1, i)) * U(t - 1, i)$$

Where:

- IL(t)*** means, in respect of an Index Business Day, the Index Level in respect of such Index Business Day;
- IL(t-1)*** means, in respect of an Index Business Day, the Index Level in respect of the Index Business Day immediately preceding such Index Business Day (or, if such immediately preceding Index Business Day falls on the Index Commencement Date, the Initial Index Level);
- ILO(t,i)*** means, in respect of an Index Business Day and a Sub-Index, the Sub-Index Level in respect of such Sub-Index in respect of such Index Business Day;
- ILO(t-1,i)*** means, in respect of an Index Business Day and a Sub-Index, the Sub-Index Level in respect of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day; and
- U(t-1,i)*** means, in respect of an Index Business Day and a Sub-Index, the Notional Holding of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day (or, if such immediately preceding Index Business Day falls on the Index Commencement Date, the Initial Notional Holding in respect of such Sub-Index).

(c) Calculating the Final Weight

On each Index Selection Day, the Index Administrator shall calculate the Final Weight in respect of a Sub-Index in respect of which the Eligible Index Commodity is the Related Index Commodity as an amount equal to:

- (i) if the aggregate of the absolute value in respect of the Intermediate Weights in respect of the Sub-Index in respect of all Eligible Index Commodities in respect of such Index Selection Day is equal to zero, then, in respect of each Sub-Index in respect of each Index Commodity, zero; or
- (ii) if the aggregate of the absolute value in respect of the Intermediate Weights in respect of the Sub-Index in respect of the Eligible Index Commodities in respect of such Index Selection Day is not equal to zero, the quotient of:
 - (a) the Intermediate Weight in respect of the Sub-Index in respect of which the Eligible Index Commodity is the Related Index Commodity (as numerator); and
 - (b) the aggregate of the absolute value in respect of the Intermediate Weights in respect of each Eligible Index Commodity in respect of such Index Selection Day (as denominator),

Any Index Commodity which is not an Eligible Index Commodity, as determined by the Index Administrator is assigned a Final Weight $w(s,i)$ of zero,

expressed as a formula:

$$w(s,i) = \frac{w_I(s,i)}{\sum_i abs(w_I(s,i))}$$

Where:

$w(s,i)$ means, in respect of an Index Selection Day, a Sub-Index and an Index Commodity, the Final Weight in respect of such Sub-Index in respect of such Index Selection Day; and

$w_I(s,i)$ means, in respect of an Index Selection Day, a Sub-Index and an Eligible Index Commodity, the Intermediate Weight in respect of such Sub-Index in respect of such Eligible Index Commodity in respect of such Index Selection Day.

(d) Calculating the Intermediate Weights

On each Index Selection Day, the Index Administrator shall allocate Intermediate Weights in respect of each Sub-Index in respect of which the Eligible Index Commodity is the Related Index Commodity in accordance with the following:

- (i) if there are two Eligible Index Commodities as determined by the Index Administrator, then:
 - (a) the Sub-Index in respect of the top ranked Eligible Index Commodity, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the positive value of the Base Weight in respect of such Sub-Index; and
 - (b) the Sub-Index in respect of the bottom ranked Eligible Index Commodity, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the negative value of the Base Weight in respect of such Sub-Index; and
- (ii) if there is one Eligible Index Commodity or no Eligible Index Commodities as determined by the Index Administrator, then, a Forecast Price Event shall have occurred for the purposes of Section 6(a)(viii) below.

(e) Assigning the Ranking

On each Index Selection Day the Index Administrator shall rank each Eligible Index Commodity in accordance with the Z-score in respect of such Index Commodity in respect of such Index Selection Day (rounded to eighteen decimal places with 0.000000000000000005 rounded upwards) with the Index Commodity with the greatest Z-score being ranked one and each remaining Eligible Index Commodity being ranked in descending order in accordance with the Z-score in respect of each such Eligible Index Commodity, as determined by the Index Administrator, provided that, if two or more Index Commodities have the same Z-score, as determined by the Index Administrator, such Index Commodities shall be ranked in accordance with the following ranking order, as determined by the Index Administrator:

- (i) GC; and
- (ii) SI.

(f) Calculating the Z-score

On each Index Selection Day, the Index Administrator shall calculate the Z-score in respect of each Eligible Index Commodity in respect of such Index Selection Day as an amount equal to the quotient of:

- (i) (a) the Spread Signal in respect of such Eligible Index Commodity in respect of such Index Selection Day; minus
- (b) the aggregate in respect of such Eligible Index Commodity in respect of each Index Selection Day from and including such Index Selection Day to and including the Index Selection Day which is the eleventh Index Selection Day immediately preceding such Index Selection Day, of the quotient of:
 - (1) the Spread Signal in respect of the Eligible Index Commodity in respect of the Index Selection Day (as numerator); and
 - (2) 12 (as denominator); and
- (ii) in respect of such Eligible Index Commodity in respect of each Index Selection Day from and including such Index Selection Day to and including the Index Selection Day which is the tenth Index Selection Day immediately preceding such Index Selection Day, the standard deviation of:
 - (a) the Spread Signal in respect of such Eligible Index Commodity in respect of such Index Selection Day; minus
 - (b) the Spread Signal in respect of such Eligible Index Commodity in respect of the Index Business Day immediately preceding such Index Selection Day.

Expressed as a formula:

$$Z_i(s) = \frac{SS_i(s) - \frac{1}{s-10} \sum_{t=s}^{s-11} SS_i(t) / 12}{STDEV(SS_i(t) - SS_i(t-1))_{t=s}^{s-10}}$$

Where:

SS_i(s) means the Spread Signal in respect of such Eligible Index Commodity in respect of such Index Selection Days;

SS_i(t) means in respect of an Index Selection Day t and an Eligible Index Commodity, the Spread Signal in respect of such Eligible Index Commodity in respect of such Index Selection Day t;

SS_i(t-1) means in respect of an Index Selection Day and an Eligible Index Commodity, the Spread Signal in respect of such Eligible Index Commodity in respect of the Index Selection Day immediately preceding such Index Selection Day;

Z_i(s) means, in respect of an Eligible Index Commodity and an Index Selection Day, the Z-score in respect of such Eligible Index Commodity in respect of such Index Selection Day; and

STDEV ()_{t = s}^{s - 10} means the standard deviation in respect of such Eligible Index Commodity in respect of each Index Selection Day, from and including such Index Selection Day to and including the Index Selection Day which is the tenth Index Selection Day immediately preceding such Index Selection Day, as calculated by the Index Administrator in accordance with the following formula:

$$STDEV_{t=s}^{s-10}(SS_i(t) - SS_i(t-1)) = \sqrt{\frac{\sum_{i=s}^{s-10} (SS_i(t) - SS_i(t-1))^2}{11} - \frac{1}{11} \left(\sum_{i=s}^{s-10} (SS_i(t) - SS_i(t-1)) \right)^2 / 10}$$

(g) Calculating the Spread Signal

On each Index Selection Day the Index Administrator shall calculate the Signal Spread in respect of each Eligible Index Commodity as an amount equal to:

- (i) the quotient of:
 - (a) the Forecast Price in respect of such Eligible Index Commodity in respect of such Index Selection Day (as numerator); and
 - (b) the Average Quarterly Futures (AQF) Price in respect of such Eligible Index Commodity in respect of such Index Selection Day (as denominator); minus
- (ii) 1.00.

Expressed as a formula:

$$SS_i(s) = (Forecast_i(s) / AQF_i(s)) - 1$$

Where:

- AQF_i(s)** means, in respect of an Index Selection Day and an Eligible Index Commodity, the Average Quarterly Futures (AQF) Price in respect of such Eligible Index Commodity in respect of such Index Selection Day;
- Forecast_i(s)** means, in respect of an Index Selection Day and an Eligible Index Commodity, the Forecast Price in respect of such Eligible Index Commodity in respect of such Index Selection Day; and
- SS_i(s)** means, in respect of an Index Selection Day and an Eligible Index Commodity, the Spread Signal in respect of such Eligible Index Commodity in respect of such Index Selection Day.

(h) Determination of Eligible Index Commodities

In order to determine the Eligible Index Commodities (the “**Eligible Index Commodities**”) in respect of an Index Selection Day, the Index Administrator shall undertake to conduct Monthly Reviews in respect of the Index Commodities.

On each Index Selection Day, the Index Administrator shall undertake to review each Annual Eligible Commodity in respect of such Index Selection Day to determine whether there has been a minimum of three analysts contributing to the mean forecast price in respect of such Annual Eligible Commodity in respect of the immediately preceding Index Selection Day (the “**Three Analyst Requirement**” and such review the “**Monthly Review**”). The Three Analyst Requirement will be deemed satisfied in respect of an Index Selection Day and an Annual Eligible Commodity where an update has occurred in respect of the “last_update_dt” Bloomberg field in respect of the Bloomberg Tickers in respect of each Annual Eligible Commodity, as determined by the Index Administrator. If the Three Analyst Requirement in respect of such Index Selection Day is not satisfied then such Annual Eligible Commodity shall not to be an Eligible Index Commodity in respect of such Index Selection Day.

(i) Miscellaneous

The Index Level in respect of each Index Business Day shall be calculated to six decimal places with 0.0000005 being rounded upwards (such level being the **Calculated Index Level** in respect of such Index Business Day) and published to four decimal places with 0.00005 being rounded upwards, as set out in the section headed "Index Publication" below. The Index Administrator shall make available the Calculated Index Level in respect of each Index Business Day (including, for the avoidance of doubt, if requested, any historical Calculated

Index Levels) on application to DBIQ at the Index Administrator's principal office in London for the time being at Winchester House, 1 Great Winchester Street, London EC2N 2DB.

The methodology described in this Section 4 (*Index Calculation*) is subject to the provisions set out in Section 6 (*Disruption Events*) and Section 7 (*Adjustment Provisions*).

5. Index Publication

(a) Availability of Index Levels and Adjustments

The Index Administrator will make available (a) the Index Level in respect of the Index in respect of each Index Business Day as soon as reasonably practicable after the Index Valuation Time on such Index Business Day and (b) details of any adjustments made to the Index, in each case, on application to DBIQ at the Index Administrator's principal office in London for the time being at Winchester House, 1 Great Winchester Street, London EC2N 2DB.

In addition, the Index Level and details of any changes to any Relevant Exchange and consequential changes as a result thereof will be available on the DBIQ Website (or any successor sources that the Index Administrator shall elect from time to time).

(b) Corrections and/or Recalculations

In the event that any price or level published on any date which is utilised for any calculation or determination in respect of the Index is subsequently corrected and/or recalculated in accordance with its terms or description (as the case may be), or the Index Administrator identifies an error or omission in any of its calculations or determinations in respect of the Index, the Index Administrator may, in its sole discretion adjust or correct any relevant terms, calculations or determinations in respect of the Index to take into account such correction(s), recalculation(s), error(s) or omission(s) (as the case may be) but is not obliged to do so.

(c) Miscellaneous

Any publication described in this Section 5 (*Index Publication*) may be restricted by means determined as appropriate for such purpose by the Index Administrator in its sole and absolute discretion including, but not limited to, password protection on the DBIQ Website restricting access to a limited set of persons in accordance with arrangements agreed between the Index Administrator and such persons.

The Index Administrator may, at any time and without notice, change with respect to the Index the place of publication of the Index Level.

The Index Administrator may, at any time and without notice, change the frequency of publication of the Index Level.

The Index Administrator accepts no legal liability to any person for publishing or not continuing to publish for any period of time any Index Level at any particular place or any particular time.

In the event of any ambiguity in, or dispute about the meaning of, any of the provisions of this Index Description, the Index Administrator shall, in its sole and absolute discretion, construe the relevant provision(s) in order to determine the correct interpretation thereof, and the decision of the Index Administrator shall be final.

6. DISRUPTION EVENTS

(a) General

Disruption Event means, in respect of the Index and an Index Business Day, an event that would require the Index Administrator to calculate the Index on an alternative basis were such event to occur or exist on such day, all as determined by the Index Administrator in its sole and absolute discretion.

Without limitation, each of the following may be a Disruption Event if so determined by the Index Administrator in its sole and absolute discretion:

- (i) the Index Administrator determines that a Sub-Index Level in respect of a Sub-Index is not published within the scheduled or usual timeframe for publication in respect of an Index Business Day;

- (ii) the relevant Relevant Exchange fails to calculate and announce the Price in respect of a Futures Contract in respect of a Sub-Index, invested in such Sub-Index as per the contract schedule given in the BCOM Methodology on the relevant Index Business Day;
- (iii) the relevant index sponsor (howsoever described) in respect of Sub-Index, fails to calculate and announce the relevant level in respect of the relevant Sub-Index on the relevant Index Business Day;
- (iv) trading in the relevant futures contract or options in respect of such futures contract, in each case, in respect of a relevant Sub-Index is subject to material suspension or material limitation or the Relevant Exchange or relevant index sponsor (howsoever described) in respect of a Sub-Index, in respect of such futures contract or options in respect of such futures contract is not open for trading for any reason (including a scheduled closure);
- (v) the permanent discontinuation of trading in the relevant futures contract or options in respect of such futures contract, in each case, in respect of a relevant Sub-Index;
- (iv) the permanent discontinuation of publication of the relevant Sub-Index;
- (v) any event in connection with which the Index Administrator is (or would be) unable to calculate the relevant Index level after using commercially reasonable efforts;
- (vi) in respect of a relevant Related Index Commodity and the Relevant Exchange in respect of such Related Index Commodity, a suspension or limitation imposed on trading by such Relevant Exchange or otherwise, including, without limitation, where such suspension or limitation is imposed by reason of movements in Price reaching or exceeding limits permitted by such exchange, as determined by the Index Administrator (a "**Limit Event**").
- (vii) Price Source Disruption:
 - (a) the relevant price source in respect of relevant futures contract or underlying commodity is temporarily or permanently discontinued, unavailable or not announced or published thereby preventing or restricting the availability of the information necessary for determining the Index; or
 - (b) following the application of the Processes in relation to any data obtained from the relevant price source in respect of relevant futures contract or underlying commodity, the Index Administrator determines in good faith and a commercially reasonable manner that such data does not accurately and reliably represent the interest purported to be measured by that data ; or
- (viii) Bloomberg fails to publish the relevant Forecast Price of any Eligible Index Commodity or the occurrence of either of the events specified in Section 4(d)(ii) above (each a "**Forecast Price Event**").

(b) Consequences of Limit Event Disruption

If a Limit Event in respect of a relevant futures contract in respect of a relevant Sub-Index occurs on any Index Business Day, the Index Administrator may make the following adjustments and/or determinations in relation to the calculation of the relevant Index level in respect of such Index Business Days:

- (i) the Index Level will be calculated using published levels of the relevant future prices and or the relevant Sub-Index on such Index Business Days; and/or;
- (ii) if an Index Rebalancing Day has occurred with respect to the Index during such Limit Event and if at least one of the disrupted futures contract is invested in the relevant Sub-Index, following the end of the Limit Event the relevant Sub-Index Level will be recalculated using the Price immediately following the Limit Event of the relevant futures contract in respect of the relevant Sub-Index. Index Levels and corresponding Notional Holdings in the relevant Sub-Index from (and including) the Index Business Day immediately following such a Limit Event will be based on the recalculated levels of the relevant Sub-Index.

(c) Consequences of Forecast Price Event Disruption

If a Forecast Price Event in respect of an Eligible Index Commodity occurs on any Index Business Day, the Index Administrator may make the following adjustments and/or determinations in relation to the calculation of the relevant Index level in respect of such Index Business Days:

- (i) the Index Level will be calculated using the Forecast Price of the Eligible Index Commodity in respect of the immediately preceding Index Business Day on which a Forecast Price was published, as determined by the Index Administrator; provided that where any such Forecast Price Event occurs and continues for a period of thirty (30) consecutive Index Business Days, then the Index Administrator may:
 - (a) calculate and publish the Index Level relating to each Index Business Day falling in or after such period having regard to the then prevailing market conditions, the last reported price, value, rate or level of any instrument relating to the Index and such other factor(s) and condition(s) that the Index Administrator considers relevant for the purpose of determining such Index Levels including, but not limited to, any modifications that the Index Administrator determines to be appropriate in relation to reconstitution relating to the Index; and/or
 - (b) permanently cease to calculate and publish the relevant Index Level as of the Index Business Day following the last Index Business Day for which the Index Administrator calculated and published the relevant Index Level in accordance with sub-section (i) above (if any) and, in each case, as applicable, such Index shall terminate; and/or
- (ii) if a Forecast Price Event occurs with respect to Forecast Price of any commodity, the Index Administrator, in its sole and absolute discretion, shall make any such appropriate adjustments to the universe of Index Commodities.

(d) Consequences of Disruption Events that are not Limit Events or Forecast Price Events

If a Disruption Event in respect of the Index or a Sub-Index occurs or subsists on an Index Business Day, that in the determination of the Index Administrator prevents or otherwise affects its determinations with respect to the Index Level or Sub-Index Level, as applicable, or any other relevant value that requires determination or calculation by the Index Administrator in relation to such Index Business Day, then:

- (i) first, the Index Administrator may make such adjustments and/or determinations in relation to the Index (including, but not limited to, this Index Description) and any relevant value as it may determine, in its sole and absolute discretion, appropriate to facilitate the calculation and publication of the Index Level in respect of such Index Business Day;
- (ii) secondly, if the Index Administrator determines that any such adjustment or determination referred to in sub-section (i) above cannot be made on such Index Business Day, then the Index Administrator may defer calculation and publication of the Index Level until the next Index Business Day on which the Index Administrator determines, in its sole and absolute discretion, that no Disruption Event exists in respect of the Index provided that where any such deferral of calculation and publication continues for a period of ten consecutive Index Business Days, then the Index Administrator may:
 - (a) calculate and publish the Index Level relating to each Index Business Day falling in or after such period having regard to the then prevailing market conditions, the last reported price, value, rate or level of any instrument relating to the Index and such other factor(s) and condition(s) that the Index Administrator considers relevant for the purpose of determining such Index Levels including, but not limited to, any modifications that the Index Administrator determines to be appropriate in relation to reconstitution relating to the Index; and/or

- (b) permanently cease to calculate and publish the relevant Index Level as of the later of (x) the date when such Disruption Event commenced or (y) the Index Business Day following the last Index Business Day for which the Index Administrator calculated and published the relevant Index Level in accordance with sub-section (i) above (if any) and, in each case, as applicable, such Index shall terminate.

(e) Force Majeure Event

If a Force Majeure Event occurs on an Index Business Day, the Index Administrator may, in its sole and absolute discretion:

- (i) make such determinations and/or adjustments to the terms contained in this Index Description as it considers appropriate to determine the relevant Index Level in respect of such Index Business Day; and/or
- (ii) defer publication of the relevant Index Level in respect of such Index Business Day until the next Index Business Day on which it determines that no Force Majeure Event exists; and/or
- (iii) permanently cancel publication of the relevant Index Level.

(f) Hedging Disruption Event

If the Index Administrator determines that it and/or any of its Affiliates would be unable, after using commercially reasonable efforts, to: (a) acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction(s) or asset(s) it deems necessary to hedge its position in relation to any securities issue, financial instrument or other relevant financial transaction relating to or calculated by reference to an Index; or (b) realise, recover or remit the proceeds of any such transaction(s) or asset(s) has occurred or exists on an Index Business Day, the Index Administrator may, in its sole and absolute discretion:

- (i) make such determinations and/or adjustments to the terms contained in this Index Description as it considers appropriate to determine the relevant Index Level in respect of such Index Business Day; and/or
- (ii) defer publication of the relevant Index Level in respect of such Index Business Day until the next Index Business Day on which it determines that no Hedging Disruption Event exists; and/or
- (iii) permanently cancel publication of the relevant Index Level.

(g) Overview

Any such adjustments and/or determinations or decisions to permanently cease to calculate and publish an Index Level in respect of the Index pursuant to sub-Sections 6(b), (c), (d), (e) or (f) shall be made by the Index Administrator as far as reasonably practicable in accordance with Section 10 (*Changes to and Retiring a Benchmark*) of the Overview.

7. ADJUSTMENT PROVISIONS

Change in methodology

In calculating and determining the value of the Index, the Index Administrator will, subject as provided below, employ the methodology described herein and its application of such methodology shall be conclusive and binding. While the Index Administrator currently employs the above described methodology to calculate the Index, no assurance can be given that market, regulatory, judicial, financial, fiscal or other circumstances (including, but not limited to, any changes to or any suspension or termination of any constituent of the Index or any other events affecting transactions on the same or similar terms to any described herein) will not arise that would, in the view of the Index Administrator, necessitate or make desirable a modification of or change to such methodology.

Accordingly:

- (i) The Index Administrator shall be entitled to make such modifications and/or changes as it deems appropriate, including (without limitation):

- (a) to correct any manifest error or proven error contained in the methodology described herein; and/or
 - (b) to cure, correct or supplement any defective provision contained in the methodology described herein; and/or
 - (c) if market, regulatory, juridical, financial, fiscal or other circumstances arise, and such circumstances would, in the determination of the Index Administrator, necessitate or make desirable such a modification or change of the methodology described herein (including, but without limitation, a change in the frequency of calculation of any Index Level) in order for the Index to continue being calculated and determined notwithstanding the relevant circumstances. In deciding what is necessary the Index Administrator will consider and/or take into account what the Index Administrator determines to be the intended strategy of the Index;
- (ii) Further, and without limitation to the above provisions, the Index Administrator shall be entitled to make such modifications and/or changes as it deems appropriate:
- (a) to preserve the intended strategy of the Index, where such modification and/or change is of a formal, minor or technical nature; and/or
 - (b) if market, regulatory, juridical, financial, fiscal or other circumstances arise, and in the determination of the Index Administrator, such modifications and/or changes would assist in maintaining the intended strategy of the Index and/or would ensure that the Index can continue to be calculated and determined by the Index Administrator in light of such circumstances.

In making such modifications however the Index Administrator will:

- (i) ensure that such modifications or changes pursuant to (i) or (ii) above will result in a methodology that is consistent in its intended commercial purpose with the methodology described in this Index Description; and
- (ii) limit any such modification or change to the terms of the Index and/or method of calculating the Index Level.

The Index Administrator may, in its discretion, at any time and without notice, terminate the calculation and publication of the Index pursuant to Section 10.2 (*Benchmark Retirement*) of the Overview.

The Overview sets out the process for making changes to its benchmarks as a general matter and the internal oversight and approval process that DBIQ will go through. It also sets out DBIQ's procedures for consulting on and notifying changes. Any such modification or change in methodology described in this Description shall be made in accordance with Section 10.1 (*Change to a Benchmark*) of the Overview.

8. CONFLICT OF INTEREST

Conflicts of interest may exist or arise between the Index Administrator and Deutsche Bank entities acting in other capacities, including as Administrator for the Index, as counterparty to a transaction or as contributor of forecasts that feed into the calculation of the index. Each relevant Deutsche Bank entity will pursue actions and take steps that it deems appropriate to protect its own interests without regard to the consequences for investors in respect of any investment or instrument linked or relating to the Index or otherwise.

Deutsche Bank entities shall be entitled to receive fees or other payments pursuant to investments or instruments linked or relating to the Index or otherwise and to exercise all rights, including rights of termination or resignations, which they may have, even though doing so may have a detrimental effect on investors in any investment or instrument linked or relating to the Index

Annex 1

	<u>Nearby Futures Contracts</u>											
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Index Commodity												
GC	G+	G+	G+	J+	J+	J+	Q+	Q+	Q+	Z+	Z+	Z+
SI	H+	H+	H+	K+	K+	K+	N+	N+	N+	Z+	Z+	Z+

Annex 2

Month Index Commodity	<u>Schedule for variable "X"</u>											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
GC	Q1+	Q1+	Q1+	Q2+	Q2+	Q2+	Q3+	Q3+	Q3+	Q4+	Q4+	Q4+
SI	Q1+	Q1+	Q1+	Q2+	Q2+	Q2+	Q3+	Q3+	Q3+	Q4+	Q4+	Q4+

Annex 3
Description of the Deutsche Industrial Metals Fundamental Fair Value USD ER Index

Deutsche Bank



**Description of the Deutsche Bank Industrial Metals Fundamental Fair Value USD ER
Index™**

Date: 12 June 2018

Version: 2

In the event of any inconsistency between the English language version of the text below and that which may be translated into any other language, the English language version shall prevail. Terms used herein have the meaning given to them in Section 3 (*Definitions*).

All determinations of the Index Administrator described herein shall be made according to the terms set out herein and, save for manifest error, shall be final and binding on all parties.

The Index Administrator is not obliged to enter into, or promote, transactions or investments that are linked to the Index.

Subject as required by law, the Index Administrator is under no obligation to maintain or calculate the Index and may cancel or cease to calculate the Index at any time without notice.

The Index Administrator does not assume any obligation or duty to any party and under no circumstances does the Index Administrator assume any relationship of agency or trust or of a fiduciary nature for or with any party. Any calculations or determinations in respect of the Index or any part thereof shall be made by the Index Administrator acting reasonably and in good faith and shall (save in the case of manifest error) be final, conclusive and binding. The term "manifest error" as used herein shall mean an error that is plain and obvious and can be identified from the results of the calculation or determination itself without: (i) recourse to any underlying data; or (ii) any application or re-application of any formulae.

The Index Administrator may delegate and/or transfer any of its obligations and/or functions to one or more third parties as it deems appropriate from time to time.

The Index Administrator makes no express or implied representations or warranties as to (a) the advisability of purchasing or assuming any risk in connection with any transaction which references or is otherwise linked to this Index, (b) the levels at which the Index stands at any particular time on any particular date, (c) the results to be obtained by any party from the use of the Index or any data included in it for the purposes of issuing securities or carrying out any financial transaction or (d) any other matter. Calculations may be based on information obtained from various publicly available sources. The Index Administrator has relied on these sources and has not independently verified the information extracted from these sources and accepts no responsibility or liability in respect thereof. If there is a calculation error the Index Administrator may restate the Index Level.

Without limiting any of the foregoing, in no event shall the Index Administrator have any liability (whether in negligence or otherwise) to any person in connection with such person's unauthorised use of the Index. "Unauthorised use" shall be construed as any use of the Index except where such use is pursuant to a transaction between a party and Deutsche Bank AG in respect of the Index.

Without limiting any of the foregoing, where use of the Index by a party is pursuant to a transaction between that party and Deutsche Bank AG, in no event shall the Index Administrator have any liability to any person except where such liability arises from the Index Administrator's wilful default, negligence resulting from a breach of material obligations only, or gross negligence in all other respects.

Nothing herein shall be taken to exclude any liability for fraud on the part of the Index Administrator.

Without prejudice to the foregoing, in no event shall the Index Administrator have any liability for any indirect, special, punitive or consequential damages (provided that any such damage is not reasonably foreseeable) even if notified of the possibility of such damages.

Conflicts of Interest

Conflicts of interest may exist or arise between the Index Administrator and Deutsche Bank entities acting in other capacities, including as Administrator for the Index or as counterparty to a transaction or as contributor of forecasts that feed into the

calculation of the index. Each relevant Deutsche Bank entity will pursue actions and take steps that it deems appropriate to protect its own interests without regard to the consequences for investors in respect of any investment or instrument linked or relating to the Index or otherwise.

Deutsche Bank entities shall be entitled to receive fees or other payments pursuant to investments or instruments linked or relating to the Index or otherwise and to exercise all rights, including rights of termination or resignations, which they may have, even though doing so may have a detrimental effect on investors in any investment or instrument linked or relating to the Index.

Trading and other transactions by Deutsche Bank AG or its affiliates

Deutsche Bank AG and/or its affiliates may hedge its obligations under any relevant instruments or financial products linked to the Index by purchasing or selling securities and other assets, or listed or over-the-counter options, futures, swaps or other derivative financial instruments underlying or linked to the Index. Although they are not expected to, any of these hedging activities may adversely affect the value of such assets, and therefore the Index Level or the value of any relevant instruments or financial products linked to the returns from these hedging activities while the level of the Index and/or relevant instruments or financial products linked to the Index declines.

Deutsche Bank AG and/or its affiliates may also engage in trading in securities and other assets, or listed or over-the-counter options, futures, swaps or other derivative financial instruments underlying or linked to the Index on a regular basis as part of their general broker-dealer and other businesses, for proprietary accounts, for other accounts under management or to facilitate transactions for customers. Any of these activities could adversely affect the value of such assets, and therefore the Index Level or the value of any relevant instruments or financial products linked to the Index. With respect to any of these activities, neither Deutsche Bank AG nor any of its affiliates has any obligation to take the level of the Index into consideration at any time.

Bloomberg Disclaimer

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Without limiting the generality of the foregoing, please be advised that any investment strategies or financial products (collectively, “Products”) referenced in this document are not sponsored, endorsed, sold or promoted by Bloomberg, UBS AG, UBS Securities LLC (“UBS Securities”) or any of their subsidiaries or affiliates. None of Bloomberg, UBS AG, UBS Securities or any of their subsidiaries or affiliates makes any representation or warranty, express or implied, to the owners of or counterparties to the Product(s) or any member of the public regarding the advisability of investing in securities or commodities generally or in the Product(s) particularly. The only relationship of Bloomberg, UBS AG, UBS Securities or any of their subsidiaries or affiliates to the Licensee is the licensing of certain trademarks, trade names and service marks and of the Bloomberg Commodity Index, which is determined, composed and calculated by Bloomberg in conjunction with UBS Securities without regard to Deutsche Bank or the Product(s). Bloomberg and UBS Securities have no obligation to take the needs of Deutsche Bank or the owners of the Product(s) into consideration in determining, composing or calculating Bloomberg Commodity Index. None of Bloomberg, UBS AG, UBS Securities or any of their respective subsidiaries or affiliates is responsible for or has participated in the determination of the timing of, prices at, or quantities of the Product(s) to be issued or in the determination or calculation of the equation by which the Product(s) are to be converted into cash. None of Bloomberg, UBS AG, UBS Securities or any of their subsidiaries or affiliates shall have any obligation or liability, including, without limitation, to Products

customers, in connection with the administration, marketing or trading of the Product(s). Notwithstanding the foregoing, UBS AG, UBS Securities and their respective subsidiaries and affiliates may independently issue and/or sponsor financial products unrelated to the Products currently being issued by Licensee, but which may be similar to and competitive with the Products. In addition, UBS AG, UBS Securities and their subsidiaries and affiliates actively trade commodities, commodity indexes and commodity futures, as well as swaps, options and derivatives which are linked to the performance of such commodities, commodity indexes and commodity futures. It is possible that this trading activity will affect the value of the Bloomberg Commodity Index and Products.

This document is referred to as the **Index Description** and consists of the following Sections:

Section:	Page
1. Introduction to the Index	3
2. Index Risk Factors	4
3. Definitions	6
4. Index Calculation	12
5. Index Publication	17
6. Disruption Events	18
7. Adjustment Provisions	21

The Deutsche Bank Industrial Metals Fundamental Fair Value USD ER Index (the **Index**) is a Deutsche Bank AG proprietary index. The Index is the intellectual property of Deutsche Bank AG (**Deutsche Bank AG** or the **Index Owner**, which expression shall include any successor in such capacity). The Index Owner owns the copyright and all other intellectual property rights in the Index and this Index Description. Any use of these intellectual property rights must be with the prior written consent of the Index Owner.

The Index will be governed by the Index Administrator (as defined below). The initial Index Administrator shall be Deutsche Bank AG operating through Deutsche Bank Index Quant (**DBIQ**), a research unit within Deutsche Bank AG via its internal processes and the **Index Administrator** shall mean Deutsche Bank AG acting in such capacity or any successor thereto. The Index Administrator controls the creation and operation of the Index administrative process, including all stages and processes involved in the production and dissemination of the Index. Notwithstanding that the Index relies on information from third party sources, the Index Administrator has primary responsibility for all aspects of the Index administration and determination process.

The Index Administrator has implemented and maintains the DBIQ User Guidance and Administrator Handbook Overview (the **Overview**), which sets out a summary of the policies, procedures and controls implemented by the management of the Index Administrator to promote sound business practices for the lifecycle management of the Index Owner's proprietary benchmarks by the Index Administrator. The Overview also includes the Index Administrator's policy related to quality of benchmarks and input data management. Additional issues related to governance, controls, benchmark classification and risk controls, restatement and calculation error management, periodic reviews and conflicts of interest are also addressed. The Overview does not form part of this Index Description or of any document into which this Index Description may be incorporated.

1. INTRODUCTION TO THE INDEX

This section summarises a number of features of the Index. This section should be read as a summary introduction to the Index Description but is no substitute for reviewing the Index Description in full. Capitalised terms not otherwise defined shall have the meanings given in Section 3 (Definitions).

The Index to which this Index Description relates is owned by the Index Owner and is administered by the Index Administrator. Certain key features of the Index are as follows:

- The Index tracks a rules-based strategy notionally investing in commodity sub-indices by taking a nominal long or short position based on the relative undervaluation or overvaluation of the futures' prices.
- The Index Level will, subject as provided below, be calculated in respect of each Index Business Day by the Index Administrator and may be used in connection with one or more financial products (each a **Financial Product**) relating to the Index. The Financial Products may be issued or entered into by Deutsche Bank AG, London Branch or other financial product providers. Each investor in relation to Financial Products is referred to as a **Financial Product Investor**.
- Although the Index Administrator will obtain information for inclusion in or for use in the calculation of the Index from sources which the Index Administrator considers reliable, the Index Administrator will not independently verify such information and does not guarantee the accuracy and/or the completeness of the Index or any data included in the Index. The Index Administrator shall not be liable (whether in negligence or otherwise) to any person for any error in the Index and the Index Administrator is under no obligation to advise any person of any error therein.
- All determinations referred to below will be made by the Index Administrator by reference to such factors as it deems appropriate and such determinations will, save for manifest error, be binding on all parties.
- The Index is "notional" in nature. This means that the Index Administrator is not obliged to enter into transactions in respect of each commodity future in order to calculate the Index.
- The Index contains Disruption Event provisions which apply when events require the Index Administrator to calculate the Index on an alternative basis were such event to occur or exist on such day, as described in Section 6 (*Disruption Events*) below. If a Disruption Event occurs, the Index Administrator may make such adjustments and/or determinations in relation to the Index as it may determine, in its sole and absolute discretion, appropriate to facilitate the calculation and publication of the Index Level or, if such adjustment or calculation cannot be made, defer calculation and publication of the Index Level and, in some cases, permanently cease to calculate the Index. These events may have an adverse effect on Financial Product Investors. Index Levels which are calculated following any such delay may give different economic results in relation to the Financial Products than the Index Levels which would have prevailed but for such delay. If the Index is cancelled or adjusted, this may lead to the calculation agent in respect of a Financial Product taking action under provisions of the Financial Product which may have an adverse effect on Financial Product Investors.
- The Index contains Adjustment Event provisions which entitle the Index Administrator to make such modifications and/or changes in its reasonable discretion deems appropriate, as described in Section 7 (*Adjustment Provisions*) below. If market, regulatory, judicial, financial, fiscal or other circumstances arise that would, in the determination of the Index Administrator, necessitate or make desirable a modification or change to this Index Description in order for the Index to continue to be calculated and determined notwithstanding the relevant circumstances, the Index Administrator may make such modifications or changes.
- This Section 1 (*Introduction to the Indices*) is subject to and qualified by the remainder of this Index Description.
- The Index Level will be expressed in the Index Currency.

2. INDEX RISK FACTORS

The risk factors set out in this Section 2 (*Index Risk Factors*) are not a comprehensive list of all risks that might have an adverse effect on the value of the Index. When considering an investment in a Financial Product, prospective Financial Product

Investors should review carefully the whole of the Index Description and form their own decisions as to risks associated with the Index Administrator and the Index.

Risks relating to the Index

Volatility of Commodities: Trading in commodities is speculative and may be extremely volatile. Commodity prices are affected by a variety of factors that are unpredictable including, for example, changes in supply and demand relationships, weather patterns and extreme weather conditions, environmental disasters, governmental programmes and policies, national and international political, military, terrorist and economic events, fiscal, monetary and exchange control programmes and changes in interest and exchange rates. Commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, the participation of speculators and government regulation and intervention. These circumstances could also adversely affect prices of the relevant commodity. Therefore, commodity prices may be more volatile than other asset classes.

Commodity Futures: The price of a futures contract on a commodity will generally be at a premium or at a discount to the spot price of the underlying commodity. Accordingly, products linked to commodity futures contracts may provide a different return than products linked to the relevant physical commodity.

Index Rebalancing: Each Index is rebalanced and the weight assigned to each Sub-Index is adjusted with effect from each Rebalancing Day and remains fixed until the next Rebalancing Day. Therefore, any sudden changes (positive or negative) to a Sub-Index and the trend in respect of the performance of each Sub-Index in between Rebalancing Days will not be taken into consideration in calculating the Index Level until the next Rebalancing Day.

Index Administrator's Powers: The Index Administrator has a number of discretions in relation to an Index, which always have to be exercised in good faith and in a commercially reasonable manner. Nevertheless the exercise of these discretions may have a significant effect on Financial Products. In particular:

- If a Disruption Event occurs, the Index Administrator may make such adjustments and/or determinations in relation to the Index as it may determine, in its sole and absolute discretion, appropriate to facilitate the calculation and publication of the Index Level or postpone or cancel and permanently cease to calculate an Index. A Disruption Event may occur, amongst other things, as a result of the failure of trading to commence, or the permanent discontinuation of trading in any relevant futures contract.
- If market, regulatory, judicial, financial, fiscal or other circumstances arise that would necessitate or make desirable a modification or change to this Index Description, the Index Administrator may make such modifications or changes.

General risks

Multiple roles of Deutsche Bank Entities: Conflicts of interest may exist between the Index Owner, initial Index Administrator and Deutsche Bank AG, London Branch and its affiliates (each a **Deutsche Bank Entity**).

A Deutsche Bank Entity may also act as the issuer of, or an obligor under, a Financial Product and as a dealer, calculation agent or hedge provider in relation to a Financial Product. Various conflicts of interest might exist or arise as a result of these different roles as well as from the overall activities of Deutsche Bank Entities. Deutsche Bank AG has a regulatory obligation to take reasonable steps to manage such conflicts fairly. Such reasonable steps include information walls being maintained between the personnel of Deutsche Bank Entities involved in different roles. However, as with any set of systems and controls there is a risk that such information walls might not be effective in all cases.

No disclosure of information: Deutsche Bank Entities may be in possession at any time of information in relation to the Index which may not be available to Financial Product Investors. There is no obligation on any Deutsche Bank Entity to disclose to Financial Product Investors any such information.

Fees: Deutsche Bank Entities shall be entitled to receive fees or other payments and exercise all rights, including rights of termination or resignation, which they may have, even though this may have a detrimental effect on the Index and Financial Products.

Hedging Arrangements: The Index is calculated as a "notional" index. This means that the Index reflects the performance of notional commodity futures contracts as further outlined and detailed in each Sub-Index, but there is no requirement for the Index Administrator to enter into commodity futures contracts in relation to such commodity futures contracts in order to calculate the Index. Deutsche Bank Entities may enter into commodity futures contracts in order to meet obligations in respect of Financial Products or for any other purpose, but Deutsche Bank Entities are not required to do this. If they do, Deutsche Bank Entities will have certain rights pursuant to such futures contracts and will pursue actions and take steps that they deem appropriate to protect their own interests.

Political and Economic Factors: Commodity futures may be influenced by a number of circumstances, including but not limited to political events, general economic conditions, government intervention, changes in balances of payments and trade, domestic and international rates of inflation, international trade restrictions and currency devaluations. Any such circumstance (or a combination of them) may cause unexpected volatility or illiquidity in the commodity futures markets. This may have an adverse effect on Index Levels which may in turn have an adverse effect on the performance of Financial Products.

Future Regulatory Change in respect of commodity futures: Legal and regulatory changes could adversely affect commodity futures. In addition, many governmental agencies and regulatory organisations are authorised to take extraordinary actions in the event of market emergencies. The effect of any future legal or regulatory change on commodity futures is not possible to predict, but could be substantial and adverse.

Future Regulatory Change in respect of indices: Legal and regulatory changes could adversely affect indices including the Index or any Sub-Index. The effect of any future legal or regulatory change on indices may not be possible to predict, but could be substantial and adverse.

3. DEFINITIONS

Affiliate means, in respect of the Index Administrator, any entity controlled, directly or indirectly, by the Index Administrator, any entity that controls, directly or indirectly, the Index Administrator or any entity directly or indirectly under common control with the Index Administrator. For this purpose, **control** of any entity or person means ownership of a majority of the voting power of the entity or person.

Aluminium Subindex means the Bloomberg Aluminium Subindex as published on Bloomberg page *.BCOMAL <Index>* or any Successor Source thereto.

Annual Eligible Commodities has the meaning given to such term in Section 4(h) (*Annual Review*).

Annual Review has the meaning given to such term in Section 4(h)(i) (*Annual Review*).

Average Quarterly Futures (AQF) Price means, in respect of an Index Commodity and an Index Selection Day, an amount calculated by the Index Administrator as the quotient of:

- (i) the sum of:
 - (a) the Price of the futures contract identified by Contract Month in Annex 1 hereto corresponding to the calendar month in which such Index Selection Day falls and the Index Commodity, using the table headed "Nearby Futures Contracts", as determined by the Index Administrator;
 - (b) the Price of the futures contract identified by Contract Month in Annex 1 hereto corresponding to the calendar month in which such Index Selection Day falls and the Index Commodity, using the table headed "One Month Forward Futures Contracts", as determined by the Index Administrator; and
 - (c) the Price of the futures contract identified by Contract Month in Annex 1 hereto corresponding to the calendar month in which such Index Selection Day falls

and the Index Commodity, using the table headed “Two Month Forward Futures Contracts”, as determined by the Index Administrator,

(as numerator); and

(ii) 3.00 (as denominator).

Expressed as a formula:

$$AQF_i(s) = (F_i(s,1) + F_i(s,2) + F_i(S,3))/3$$

Where:

AQF_i(s)	means, in respect of an Index Selection Day and an Index Commodity, the Average Quarterly Futures (AQF) Price in respect of the Index Commodity in respect of such Index Selection Day;
F_i(s,1)	means, in respect of an Index Selection Day and an Index Commodity, the Price of the nearby futures contract identified by Contract Month in Annex 1 hereto corresponding to the calendar month in which such Index Selection Day falls and the Index Commodity, using the table headed “Nearby Futures Contracts”, as determined by the Index Administrator;
F_i(s,2)	means, in respect of an Index Selection Day and an Index Commodity, the Price of the one month forward futures contract identified by Contract Month in Annex 1 hereto corresponding to the calendar month in which such Index Selection Day falls and the Index Commodity, using the table headed “One Month Forward Futures Contracts”, as determined by the Index Administrator; and
F_i(s,3)	means, in respect of an Index Selection Day and an Index Commodity, the Price of the two month forward futures contract identified by Contract Month in Annex 1 hereto corresponding to the calendar month in which such Index Selection Day falls and the Index Commodity, using the table headed “Two Month Forward Futures Contracts”, as determined by the Index Administrator.

Base Weight means, in respect of:

- (i) Copper Subindex, 21.00 per cent. (expressed as 0.21);
- (ii) Aluminium Subindex, 26.00 per cent. (expressed as 0.26);
- (iii) Nickel Subindex, 16.00 per cent. (expressed as 0.16);
- (iv) Zinc Subindex, 19.00 per cent (expressed as 0.19); and
- (v) Lead Subindex, 18.00 per cent. (expressed as 0.18).

BCOM Methodology means the Bloomberg Commodity Index Methodology published by UBS Securities LLC together with Bloomberg Finance L.P. dated February 2017 as may be amended, supplemented, replaced and/or restated from time to time.

Bloomberg means Bloomberg L.P. or any successor thereto.

Bloomberg Analyst Survey means, a prediction of commodity prices by analysts designated by Bloomberg.

Bloomberg Ticker means, in respect of:

- (i) MCU, *METF3 "X" <Index>*;
- (ii) MAL, *METF3 "X" <Index>*;
- (iii) MNI, *METF3 "X" <Index>*;
- (iv) MZN, *METF3 "X" <Index>*; and
- (v) MPB, *METF3 "X" <Index>*,

in each case, as determined by the Index Administrator where "X" has the meaning given below in this Section 3 (*Definitions*).

Contract Month means, in respect of a Futures Contract, the contract month by which such Futures Contract is identified, as set out in Annex 1 hereto, as determined by the Index Administrator, where:

- (i) F means January;
- (ii) G means February;
- (iii) H means March;
- (iv) J means April;
- (v) K means May;
- (vi) M means June;
- (vii) N means July;
- (viii) Q means August;
- (ix) U means September;
- (x) V means October;
- (xi) X means November; and
- (xii) Z means December,

and, in each case, a "+" following such letter shall mean the relevant month in the following calendar year.

Copper Subindex means the Bloomberg Copper Subindex as published on Bloomberg page *.BCOMHG <Index>* or any Successor Source thereto.

DBIQ Website means <http://www.index.db.com>.

Eligible Index Commodity has the meaning given to such term in Section 4(h)(ii) (*Monthly Review*).

Final Weight has the meaning given to such term in Section 4(c) (*Calculating the Final Weight*).

Force Majeure Event means, in respect of the Index, an event or circumstance (including, without limitation, a systems failure, fire, building evacuation, natural or man-made disaster, act of God, armed conflict, act of terrorism, riot or labour disruption or any similar intervening circumstance) which is beyond the reasonable control of the Index Administrator and affects the Index, a Sub-Index, the Related Index Commodity in respect of such Sub-Index or an exchange instrument in respect of such Sub-Index or affects the ability of the Index Administrator to calculate or determine the Index.

Forecast Price means, on an Index Selection Day, in respect of an Eligible Index Commodity, the final forecast price of such Eligible Index Commodity in respect of such Index Selection Day as determined by the Index Administrator on such Index Selection Day by reference to the final Bloomberg Analyst Survey arithmetic mean as published with Bloomberg field "BN_Survey_Average" in respect of such Eligible Index Commodity in respect of such Index Selection Day which is published on the Bloomberg screen page under the Bloomberg Ticker in respect of such Eligible Index Commodity or any Successor Source, *provided that*, if such page is not available for any reason at such time on such Index

Selection Day, then the forecast price in respect of such Eligible Index Commodity in respect of such Index Selection Day shall be the Rolled Forecast Price in respect of such Eligible Index Commodity in respect of such Index Selection Day, as determined by the Index Administrator.

Futures Contract means, in respect of an Index Selection Day and an Index Commodity, the futures contract identified by Contract Month in Annex 1 hereto corresponding to the calendar month in which such Index Selection Day falls and the Index Commodity, using (i) the table headed "Nearby Futures Contracts" where such futures contract is a nearby futures contract; (ii) the table headed "One Month Forward Futures Contracts" where such futures contract is a one month forward futures contract; and (iii) the table headed "Two Month Forward Futures Contracts" where such futures contract is a two month forward futures contract.

Index has the meaning given to such term on page 2 of this Index Description.

Index Administrator has the meaning given to such term on page 2 of this Index Description.

Index Business Day means:

- (i) prior to 1 January 2010, a day (other than a Saturday or Sunday) on which commercial banks and foreign exchange markets settle payments and are open for general business in New York City; and
- (ii) from and including 1 January 2010, a day (other than a Saturday or Sunday) which is not a holiday in respect of Commodities in the CME Group Chicago Trading Floor Holiday Schedule for the relevant year as published on the CME Group website or any Successor Source thereto.

Index Commencement Date means 3 January 2008.

Index Commodity means, each of:

- (i) Copper Grade A ("**MCU**")
- (ii) High grade primary aluminium ("**MAL**");
- (iii) Primary Nickel ("**MNI**");
- (iv) Special High Grade Zinc ("**MZN**"); and
- (v) Standard Lead ("**MPB**").

Index Currency means USD.

Index Description has the meaning given to such term on page 2 of this Index Description.

Index Level means, in respect of an Index Business Day, an amount, expressed in the Index Currency, being the closing level of the Index in respect of such Index Business Day, as determined by the Index Administrator in accordance with Section 4(b) (*Index Calculation on each Index Business Day*).

Index Selection Day means the first Index Business Day of each month.

Index Valuation Time means the time at which or in respect of which the Index Administrator calculates and publishes the official closing level of the Index.

Initial Annual Eligible Commodities has the meaning given to such term in Section 4(h)(i) (*Annual Review*).

Initial Index Level means 107.459399.

Initial Notional Holding means, in respect of:

- (i) Copper Subindex, zero;
- (ii) Aluminium Subindex, -0.456386;
- (iii) Nickel Subindex, 0.058138;
- (iv) Zinc Subindex, 0.214684; and
- (v) Lead Subindex, -0.075314.

Intermediate Weight has the meaning given to such term in Section 4(d) (*Calculating the Intermediate Weights*).

Lead Subindex means the Bloomberg Lead Subindex as published on Bloomberg page *.BCOMP* <Index> or any Successor Source thereto.

Monthly Review has the meaning given to such term in Section 4(h)(i) (*Monthly Review*).

Nickel Subindex means the Bloomberg Nickel Subindex as published on Bloomberg page *.BCOMNI* <Index> or any Successor Source thereto.

Notional Holding means, in respect of a Sub-Index and an Index Business Day:

- (ix) if such Index Business Day is not a Rebalancing Day, the Notional Holding in respect of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day (or, if such immediately preceding Index Business Day falls on the Index Commencement Date, the Initial Notional Holding in respect of such Sub-Index); and
- (x) if such Index Business Day falls on a Rebalancing Day, an amount determined by the Index Administrator as the product of:
 - (k) the Final Weight in respect of the Index Selection Day immediately preceding such Rebalancing Day and such Sub-Index; and
 - (l) the quotient of:
 - (7) the Index Level in respect of such Index Business Day (as numerator); and
 - (8) the Sub-Index Level in respect of such Sub-Index in respect of such Index Business Day (as denominator).

Expressed as formula:

$$U(t, i) = w(s, i) * \frac{IL(t)}{ILo(t, i)}$$

Where:

IL(t)	means, in respect of an Index Business Day, the Index Level in respect of such Index Business Day;
ILo(t, i)	means, in respect of a Sub-Index and an Index Business Day, the Sub-Index Level in respect of such Sub-Index and such Index Business Day;
U(t, i)	means, in respect of a Sub-Index and an Index Business Day, the Notional Holding in respect of such Sub-Index and such Index Business Day; and
w(s, i)	means, in respect of an Index Business Day and a Sub-Index, the Final Weight in respect of the Index Selection Day immediately preceding such Rebalancing Day and such Sub-Index.

Price means, in respect of an Index Business Day and a Futures Contract, the official settlement price of such Futures Contract in respect of such Index Business Day as published by the Relevant Exchange in respect of such Futures Contract, as determined by the Index Administrator. If such official settlement price is not published by the Relevant Exchange on such Index Business Day, the Price in respect of such Futures Contract in respect of such Index Business Day shall be determined by the Index Administrator in good faith and a commercially reasonable manner.

Processes means the processes and controls set out in Section 8 (*Input Data Management*) of the Overview (or any successor publication and/or section of such publication that addresses the input data management policy of the Index Administrator).

Rebalancing Day means the second Index Business Day of each month from (but excluding) the Index Commencement Date.

Related Index Commodity means, in respect of a Sub-Index:

- (i) where the Sub-Index is the Copper Subindex, MCU;
- (ii) where the Sub-Index is the Aluminium Subindex, MAL;
- (iii) where the Sub-Index is the Nickel Subindex, MNI;
- (iv) where the Sub-Index is the Zinc Subindex, MZN; and
- (v) where the Sub-Index is the Lead Subindex, MPB.

Relevant Exchange means, in respect of:

- (i) the Copper Subindex, the London Metal Exchange;
- (ii) the Aluminium Subindex, the London Metal Exchange;
- (iii) the Nickel Subindex, the London Metal Exchange;
- (iv) the Zinc Subindex, the London Metal Exchange; and
- (v) the Lead Subindex, the London Metal Exchange.

Rolled Forecast Price means, in respect of an Index Selection Day and an Eligible Index Commodity, the Forecast Price of the Eligible Index Commodity in respect of the immediately preceding day (other than a Saturday or Sunday) on which a Forecast Price was published, as determined by the Index Administrator.

Spread Signal means has the meaning given to such term in Section 4(g) (*Calculating the Spread Signal*).

Sub-Index means, each of:

- (i) the Copper Subindex;
- (ii) the Aluminium Subindex;
- (iii) the Nickel Subindex;
- (iv) the Zinc Subindex; and
- (v) the Lead Subindex.

Sub-Index Level means, in respect of each Sub-Index and an Index Business Day, the official closing level of such Sub-Index in respect of such Index Business Day as calculated and published by the relevant index sponsor of such Sub-Index as determined by the Index Administrator.

Successor Source means, in relation to any display page, other published source, information vendor or provider:

- (i) the successor display page, other published source, information vendor or provider that has been officially designated by the sponsor of the original page or source; or
- (ii) if the sponsor of the original page or source has not officially designated a successor display page, other published source, service or provider (as the case may be), the successor display page, other published source, service or provider, if any, designated by the relevant information vendor or provider (if different from such sponsor).

USD means United States dollars.

X means, in respect of an Index Selection Day and an Index Commodity, the quarter for which the Forecast Price or Rolled Forecast Price, as applicable, is considered in respect of the Relevant Bloomberg Analyst Survey in respect of the Index Commodity in respect of such Index Selection Day as specified in respect of such Index Commodity in the table entitled "Schedule for variable 'X'" at Annex 2 hereto as determined by the Index Administrator and, in each case, a "+" following such quarter shall mean the relevant quarter in the calendar year following such Index Selection Day.

Z-score has the meaning given to such term in Section 4(f) (*Calculating the Z-score*).

Zinc Subindex means the Bloomberg Zinc Subindex as published on Bloomberg page *.BCOMZS <Index>* or any Successor Source thereto.

4. INDEX CALCULATION

(a) Index Calculation on the Index Commencement Date

The Index is deemed to have been established on the Index Commencement Date.

The Index Level in respect of the Index Commencement Date was equal to the Initial Index Level.

The Index has been calculated back to the Index Commencement Date.

(b) Index Calculation on each Index Business Day

The Index Level on each Index Business Day from (but excluding) the Index Commencement Date shall be an amount (in the Index Currency) calculated by the Index Administrator as the sum of:

- (i) the Index Level in respect of the Index Business Day immediately preceding such Index Business Day (or, if such immediately preceding Index Business Day falls on the Index Commencement Date, the Initial Index Level); and
- (ii) the aggregate in respect of each Sub-Index of the product of:
 - (a) (1) the Sub-Index Level in respect of such Sub-Index and such Index Business Day; minus
 - (2) the Sub-Index Level in respect of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day; and
 - (b) the Notional Holding in respect of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day (or, if such immediately preceding Index Business Day falls on the Index Commencement Date, the Initial Notional Holding in respect of such Sub-Index).

Expressed as a formula:

$$IL(t) = IL(t - 1) + \sum_{i=1}^5 (ILO(t, i) - ILO(t - 1, i)) * U(t - 1, i)$$

Where:

IL(t) means, in respect of an Index Business Day, the Index Level in respect of such Index Business Day;

IL(t-1) means, in respect of an Index Business Day, the Index Level in respect of the Index Business Day immediately preceding such Index Business Day (or, if such immediately preceding Index Business Day falls on the Index Commencement Date, the Initial Index Level);

ILO(t,i) means, in respect of an Index Business Day and a Sub-Index, the Sub-Index Level in respect of such Sub-Index in respect of such Index Business Day;

ILO(t-1,i) means, in respect of an Index Business Day and a Sub-Index, the Sub-Index Level in respect of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day; and

U(t-1,i) means, in respect of an Index Business Day and a Sub-Index, the Notional Holding of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day (or, if such

immediately preceding Index Business Day falls on the Index Commencement Date, the Initial Notional Holding in respect of such Sub-Index).

(c) Calculating the Final Weight

On each Index Selection Day, the Index Administrator shall calculate the Final Weight in respect of a Sub-Index in respect of which the Eligible Index Commodity is the Related Index Commodity as an amount equal to:

- (i) if the aggregate of the absolute value in respect of the Intermediate Weights in respect of the Sub-Index in respect of all Eligible Index Commodities in respect of such Index Selection Day is equal to zero, then, in respect of each Sub-Index in respect of each Index Commodity, zero; or
- (ii) if the aggregate of the absolute value in respect of the Intermediate Weights in respect of the Sub-Index in respect of the Eligible Index Commodities in respect of such Index Selection Day is not equal to zero, the quotient of:
 - (a) the Intermediate Weight in respect of the Sub-Index in respect of which the Eligible Index Commodity is the Related Index Commodity (as numerator); and
 - (b) the aggregate of the absolute value in respect of the Intermediate Weights in respect of each Eligible Index Commodity in respect of such Index Selection Day (as denominator),

Any Index Commodity which is not an Eligible Index Commodity, as determined by the Index Administrator is assigned a Final Weight $w(s,i)$ of zero,

expressed as a formula:

$$w(s,i) = \frac{w_I(s,i)}{\sum_i abs(w_I(s,i))}$$

Where:

$w(s,i)$ means, in respect of an Index Selection Day, a Sub-Index and an Index Commodity, the Final Weight in respect of such Sub-Index in respect of such Index Selection Day; and

$w_I(s,i)$ means, in respect of an Index Selection Day, a Sub-Index and an Eligible Index Commodity, the Intermediate Weight in respect of such Sub-Index in respect of such Eligible Index Commodity in respect of such Index Selection Day.

(d) Calculating the Intermediate Weights

On each Index Selection Day, the Index Administrator shall allocate Intermediate Weights in respect of each Sub-Index in respect of which the Eligible Index Commodity is the Related Index Commodity in accordance with the following:

- (i) if there are five Eligible Index Commodities as determined by the Index Administrator, then:
 - (a) each of the Sub-Indices in respect of the top two ranked Eligible Index Commodities, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the positive value of the Base Weight in respect of such Sub-Index;
 - (b) each of the Sub-Indices in respect of the bottom two ranked Eligible Index Commodities, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate

Weight equal to the negative value of the Base Weight in respect of such Sub-Index; and

- (c) the Sub-Index in respect of the Eligible Index Commodity ranked third, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to zero;
- (ii) if there are four Eligible Index Commodities as determined by the Index Administrator, then:
 - (a) each of the Sub-Indices in respect of the top two ranked Eligible Index Commodities, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the positive value of the Base Weight in respect of such Sub-Index; and
 - (b) each of the Sub-Indices in respect of the bottom two ranked Eligible Index Commodities, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the negative value of the Base Weight in respect of such Sub-Index;
- (iii) if there are three Eligible Index Commodities as determined by the Index Administrator, then:
 - (a) the Sub-Index in respect of the top ranked Eligible Index Commodity, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the positive value of the Base Weight in respect of such Sub-Index;
 - (b) the Sub-Index in respect of the bottom ranked Eligible Index Commodity, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the negative value of the Base Weight in respect of such Sub-Index; and
 - (c) the Sub-Index in respect of the Eligible Index Commodity ranked second, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to zero;
- (iv) if there are two Eligible Index Commodities as determined by the Index Administrator, then:
 - (a) the Sub-Index in respect of the top ranked Eligible Index Commodity, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the positive value of the Base Weight in respect of such Sub-Index; and
 - (b) the Sub-Index in respect of the bottom ranked Eligible Index Commodity, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the negative value of the Base Weight in respect of such Sub-Index; and
- (v) if there is one Eligible Index Commodity or no Eligible Index Commodities as determined by the Index Administrator, then, a Forecast Price Event shall have occurred for the purposes of Section 6(a)(viii) below.

(e) Assigning the Ranking

On each Index Selection Day the Index Administrator shall rank each Eligible Index Commodity in accordance with the Z-score in respect of such Index Commodity in respect of such Index Selection Day (rounded to eighteen decimal places with 0.000000000000000005 rounded upwards) with the Index Commodity with the greatest Z-score being ranked one and each remaining Eligible Index Commodity being ranked in descending order in accordance with the Z-score in respect of each such Eligible Index Commodity, as determined by the Index Administrator, provided that, if two or more Index Commodities have the same Z-score, as determined by the Index Administrator, such Index

Commodities shall be ranked in accordance with the following ranking order, as determined by the Index Administrator:

- (i) MCU;
- (ii) MAL;
- (iii) MNI;
- (iv) MZN; and
- (v) MPB.

(f) Calculating the Z-score

On each Index Selection Day, the Index Administrator shall calculate the Z-score in respect of each Eligible Index Commodity in respect of such Index Selection Day as an amount equal to the quotient of:

- (i) (a) the Spread Signal in respect of such Eligible Index Commodity in respect of such Index Selection Day; minus
 - (b) the aggregate in respect of such Eligible Index Commodity in respect of each Index Selection Day from and including such Index Selection Day to and including the Index Selection Day which is the eleventh Index Selection Day immediately preceding such Index Selection Day, of the quotient of:
 - (1) the Spread Signal in respect of the Eligible Index Commodity in respect of the Index Selection Day (as numerator); and
 - (2) 12 (as denominator); and
- (ii) in respect of such Eligible Index Commodity in respect of each Index Selection Day from and including such Index Selection Day to and including the Index Selection Day which is the tenth Index Selection Day immediately preceding such Index Selection Day, the standard deviation of:
 - (a) the Spread Signal in respect of such Eligible Index Commodity in respect of such Index Selection Day; minus
 - (b) the Spread Signal in respect of such Eligible Index Commodity in respect of the Index Business Day immediately preceding such Index Selection Day.

Expressed as a formula:

$$Z_i(s) = \frac{SS_i(s) - \bar{a} \sum_{t=s}^{s-11} SS_i(t) / 12}{STDEV \sum_{t=s} (SS_i(t) - SS_i(t-1))}$$

Where:

- SS_i(s)** means the Spread Signal in respect of such Eligible Index Commodity in respect of such Index Selection Days;
- SS_i(t)** means in respect of an Index Selection Day t and an Eligible Index Commodity, the Spread Signal in respect of such Eligible Index Commodity in respect of such Index Selection Day t;
- SS_i(t-1)** means in respect of an Index Selection Day and an Eligible Index Commodity, the Spread Signal in respect of such Eligible Index Commodity in respect of the Index Selection Day immediately preceding such Index Selection Day;
- Z_i(s)** means, in respect of an Eligible Index Commodity and

an Index Selection Day, the Z-score in respect of such Eligible Index Commodity in respect of such Index Selection Day; and

$$STDEV \left(\frac{SS_i(t) - SS_i(t-1)}{s-10} \right)$$

means the standard deviation in respect of such Eligible Index Commodity in respect of each Index Selection Day, from and including such Index Selection Day to and including the Index Selection Day which is the tenth Index Selection Day immediately preceding such Index Selection Day, as calculated by the Index Administrator in accordance with the following formula:

$$STDEV(SS_i(t) - SS_i(t-1)) = \sqrt{\frac{\sum_{i=s}^{s-10} (SS_i(t) - SS_i(t-1))^2}{10}}$$

(g) Calculating the Spread Signal

On each Index Selection Day the Index Administrator shall calculate the Signal Spread in respect of each Eligible Index Commodity as an amount equal to:

- (i) the quotient of:
 - (a) the Forecast Price in respect of such Eligible Index Commodity in respect of such Index Selection Day (as numerator); and
 - (b) the Average Quarterly Futures (AQF) Price in respect of such Eligible Index Commodity in respect of such Index Selection Day (as denominator); minus
- (ii) 1.00.

Expressed as a formula:

$$SS_i(s) = (Forecast_i(s) / AQF_i(s)) - 1$$

Where:

- AQF_i(s)** means, in respect of an Index Selection Day and an Eligible Index Commodity, the Average Quarterly Futures (AQF) Price in respect of such Eligible Index Commodity in respect of such Index Selection Day;
- Forecast_i(s)** means, in respect of an Index Selection Day and an Eligible Index Commodity, the Forecast Price in respect of such Eligible Index Commodity in respect of such Index Selection Day; and
- SS_i(s)** means, in respect of an Index Selection Day and an Eligible Index Commodity, the Spread Signal in respect of such Eligible Index Commodity in respect of such Index Selection Day.

(h) Determination of Eligible Index Commodities

In order to determine the Eligible Index Commodities (the “**Eligible Index Commodities**”) in respect of an Index Selection Day, the Index Administrator shall undertake to conduct Annual Reviews and Monthly Reviews in respect of the Index Commodities in accordance with the Annual Review and Monthly Review sections below, as applicable.

- (i) Annual Review

In respect of each Index Selection Day falling in December, the Index Administrator shall, on the fifth Index Business Day immediately succeeding such Index Selection Day, determine the Initial Annual Eligible Commodities in respect of the Index in respect of the immediately following calendar year (the “**Annual Review**”) where “**Initial Annual Eligible Commodities**” means, in respect of an Index Selection Day falling in December, an Index

Commodity in which the number of analysts contributing Rolled Forecast Prices as of the Index Selection Days in at least six months of the calendar year in which such Index Selection Day falls is greater than or equal to five, as determined by the Index Administrator.

If the number of such Initial Annual Eligible Commodities is less than four the Index Administrator shall include such other Index Commodities as necessary so that there are four such Index Commodities in accordance with the following ranking order (including for the avoidance of doubt, any that are missing so that, for example, if only three Index Commodities being MCU, MNI and MZN were included in the Initial Annual Eligible Commodities, MAL would be included in the Initial Annual Eligible Commodities) as determined by the Index Administrator for:

- (a) MCU;
- (b) MAL;
- (c) MNI;
- (d) MZN; and
- (e) MPB,

and such Index Commodities shall comprise the Annual Eligible Commodities (the “**Annual Eligible Commodities**”).

(ii) Monthly Review:

On each Index Selection Day, the Index Administrator shall undertake to review each Annual Eligible Commodity in respect of such Index Selection Day to determine whether there has been a minimum of three analysts contributing to the mean forecast price in respect of such Annual Eligible Commodity in respect of the immediately preceding Index Selection Day (the “**Three Analyst Requirement**” and such review the “**Monthly Review**”). The Three Analyst Requirement will be deemed satisfied in respect of an Index Selection Day and an Annual Eligible Commodity where an update has occurred in respect of the “last_update_dt” Bloomberg field in respect of the Bloomberg Tickers in respect of each Annual Eligible Commodity, as determined by the Index Administrator. If the Three Analyst Requirement in respect of such Index Selection Day is not satisfied then such Annual Eligible Commodity shall not to be an Eligible Index Commodity in respect of such Index Selection Day.

(i) **Miscellaneous**

The Index Level in respect of each Index Business Day shall be calculated to six decimal places with 0.0000005 being rounded upwards (such level being the **Calculated Index Level** in respect of such Index Business Day) and published to four decimal places with 0.00005 being rounded upwards, as set out in the section headed "Index Publication" below. The Index Administrator shall make available the Calculated Index Level in respect of each Index Business Day (including, for the avoidance of doubt, if requested, any historical Calculated Index Levels) on application to DBIQ at the Index Administrator's principal office in London for the time being at Winchester House, 1 Great Winchester Street, London EC2N 2DB.

The methodology described in this Section 4 (*Index Calculation*) is subject to the provisions set out in Section 6 (*Disruption Events*) and Section 7 (*Adjustment Provisions*).

5. Index Publication

(a) Availability of Index Levels and Adjustments

The Index Administrator will make available (a) the Index Level in respect of the Index in respect of each Index Business Day as soon as reasonably practicable after the Index Valuation Time on such Index Business Day and (b) details of any adjustments made to the Index, in each case, on application to DBIQ at the Index Administrator's principal office in London for the time being at Winchester House, 1 Great Winchester Street, London EC2N 2DB.

In addition, the Index Level and details of any changes to any Relevant Exchange and consequential changes as a result thereof will be available on the DBIQ Website (or any successor sources that the Index Administrator shall elect from time to time).

(b) Corrections and/or Recalculations

In the event that any price or level published on any date which is utilised for any calculation or determination in respect of the Index is subsequently corrected and/or recalculated in accordance with its terms or description (as the case may be), or the Index Administrator identifies an error or omission in any of its calculations or determinations in respect of the Index, the Index Administrator may, in its sole discretion adjust or correct any relevant terms, calculations or determinations in respect of the Index to take into account such correction(s), recalculation(s), error(s) or omission(s) (as the case may be) but is not obliged to do so.

(c) Miscellaneous

Any publication described in this Section 5 (*Index Publication*) may be restricted by means determined as appropriate for such purpose by the Index Administrator in its sole and absolute discretion including, but not limited to, password protection on the DBIQ Website restricting access to a limited set of persons in accordance with arrangements agreed between the Index Administrator and such persons.

The Index Administrator may, at any time and without notice, change with respect to the Index the place of publication of the Index Level.

The Index Administrator may, at any time and without notice, change the frequency of publication of the Index Level.

The Index Administrator accepts no legal liability to any person for publishing or not continuing to publish for any period of time any Index Level at any particular place or any particular time.

In the event of any ambiguity in, or dispute about the meaning of, any of the provisions of this Index Description, the Index Administrator shall, in its sole and absolute discretion, construe the relevant provision(s) in order to determine the correct interpretation thereof, and the decision of the Index Administrator shall be final.

6. DISRUPTION EVENTS

(a) General

Disruption Event means, in respect of the Index and an Index Business Day, an event that would require the Index Administrator to calculate the Index on an alternative basis were such event to occur or exist on such day, all as determined by the Index Administrator in its sole and absolute discretion.

Without limitation, each of the following may be a Disruption Event if so determined by the Index Administrator in its sole and absolute discretion:

- (i) the Index Administrator determines that a Sub-Index Level in respect of a Sub-Index is not published within the scheduled or usual timeframe for publication in respect of an Index Business Day;
- (ii) the relevant Relevant Exchange fails to calculate and announce the Price in respect of a Futures Contract in respect of a Sub-Index, invested in such Sub-Index as per the contract schedule given in the BCOM Methodology on the relevant Index Business Day;
- (iii) the relevant index sponsor (howsoever described) in respect of Sub-Index, fails to calculate and announce the relevant level in respect of the relevant Sub-Index on the relevant Index Business Day;
- (iv) trading in the relevant futures contract or options in respect of such futures contract, in each case, in respect of a relevant Sub-Index is subject to material suspension or material limitation or the Relevant Exchange or relevant index sponsor (howsoever described) in respect of a Sub-Index, in respect of such futures contract or options in respect of such futures contract is not open for trading for any reason (including a scheduled closure);

- (v) the permanent discontinuation of trading in the relevant futures contract or options in respect of such futures contract, in each case, in respect of a relevant Sub-Index;
- (iv) the permanent discontinuation of publication of the relevant Sub-Index;
- (v) any event in connection with which the Index Administrator is (or would be) unable to calculate the relevant Index level after using commercially reasonable efforts;
- (vi) in respect of a relevant Related Index Commodity and the Relevant Exchange in respect of such Related Index Commodity, a suspension or limitation imposed on trading by such Relevant Exchange or otherwise, including, without limitation, where such suspension or limitation is imposed by reason of movements in Price reaching or exceeding limits permitted by such exchange, as determined by the Index Administrator (a "**Limit Event**").
- (vii) Price Source Disruption:
 - (a) the relevant price source in respect of relevant futures contract or underlying commodity is temporarily or permanently discontinued, unavailable or not announced or published thereby preventing or restricting the availability of the information necessary for determining the Index; or
 - (b) following the application of the Processes in relation to any data obtained from the relevant price source in respect of relevant futures contract or underlying commodity, the Index Administrator determines in good faith and a commercially reasonable manner that such data does not accurately and reliably represent the interest purported to be measured by that data ; or
- (viii) Bloomberg fails to publish the relevant Forecast Price of any Eligible Index Commodity or the occurrence of either of the events specified in Section 4(d)(v) above (each a "**Forecast Price Event**").

(b) Consequences of Limit Event Disruption

If a Limit Event in respect of a relevant futures contract in respect of a relevant Sub-Index occurs on any Index Business Day, the Index Administrator may make the following adjustments and/or determinations in relation to the calculation of the relevant Index level in respect of such Index Business Days:

- (i) the Index Level will be calculated using published levels of the relevant future prices and or the relevant Sub-Index on such Index Business Days; and/or;
- (ii) if an Index Rebalancing Day has occurred with respect to the Index during such Limit Event and if at least one of the disrupted futures contract is invested in the relevant Sub-Index, following the end of the Limit Event the relevant Sub-Index Level will be recalculated using the Price immediately following the Limit Event of the relevant futures contract in respect of the relevant Sub-Index. Index Levels and corresponding Notional Holdings in the relevant Sub-Index from (and including) the Index Business Day immediately following such a Limit Event will be based on the recalculated levels of the relevant Sub-Index.

(c) Consequences of Forecast Price Event Disruption

If a Forecast Price Event in respect of an Eligible Index Commodity occurs on any Index Business Day, the Index Administrator may make the following adjustments and/or determinations in relation to the calculation of the relevant Index level in respect of such Index Business Days:

- (i) the Index Level will be calculated using the Forecast Price of the Eligible Index Commodity in respect of the immediately preceding Index Business Day on which a Forecast Price was published, as determined by the Index Administrator; provided that where any such Forecast Price Event occurs and continues for a period of thirty (30) consecutive Index Business Days, then the Index Administrator may:
 - (a) calculate and publish the Index Level relating to each Index Business Day falling in or after such period having regard to the then prevailing market conditions, the last reported price, value, rate or level of any instrument

relating to the Index and such other factor(s) and condition(s) that the Index Administrator considers relevant for the purpose of determining such Index Levels including, but not limited to, any modifications that the Index Administrator determines to be appropriate in relation to reconstitution relating to the Index; and/or

- (b) permanently cease to calculate and publish the relevant Index Level as of the Index Business Day following the last Index Business Day for which the Index Administrator calculated and published the relevant Index Level in accordance with sub-section (i) above (if any) and, in each case, as applicable, such Index shall terminate; and/or
- (ii) if a Forecast Price Event occurs with respect to Forecast Price of any commodity, the Index Administrator, in its sole and absolute discretion, shall make any such appropriate adjustments to the universe of Index Commodities.

(d) Consequences of Disruption Events that are not Limit Events or Forecast Price Events

If a Disruption Event in respect of the Index or a Sub-Index occurs or subsists on an Index Business Day, that in the determination of the Index Administrator prevents or otherwise affects its determinations with respect to the Index Level or Sub-Index Level, as applicable, or any other relevant value that requires determination or calculation by the Index Administrator in relation to such Index Business Day, then:

- (i) first, the Index Administrator may make such adjustments and/or determinations in relation to the Index (including, but not limited to, this Index Description) and any relevant value as it may determine, in its sole and absolute discretion, appropriate to facilitate the calculation and publication of the Index Level in respect of such Index Business Day;
- (ii) secondly, if the Index Administrator determines that any such adjustment or determination referred to in sub-section (i) above cannot be made on such Index Business Day, then the Index Administrator may defer calculation and publication of the Index Level until the next Index Business Day on which the Index Administrator determines, in its sole and absolute discretion, that no Disruption Event exists in respect of the Index provided that where any such deferral of calculation and publication continues for a period of ten consecutive Index Business Days, then the Index Administrator may:
 - (a) calculate and publish the Index Level relating to each Index Business Day falling in or after such period having regard to the then prevailing market conditions, the last reported price, value, rate or level of any instrument relating to the Index and such other factor(s) and condition(s) that the Index Administrator considers relevant for the purpose of determining such Index Levels including, but not limited to, any modifications that the Index Administrator determines to be appropriate in relation to reconstitution relating to the Index; and/or
 - (b) permanently cease to calculate and publish the relevant Index Level as of the later of (x) the date when such Disruption Event commenced or (y) the Index Business Day following the last Index Business Day for which the Index Administrator calculated and published the relevant Index Level in accordance with sub-section (i) above (if any) and, in each case, as applicable, such Index shall terminate.

(e) Force Majeure Event

If a Force Majeure Event occurs on an Index Business Day, the Index Administrator may, in its sole and absolute discretion:

- (i) make such determinations and/or adjustments to the terms contained in this Index Description as it considers appropriate to determine the relevant Index Level in respect of such Index Business Day; and/or

- (ii) defer publication of the relevant Index Level in respect of such Index Business Day until the next Index Business Day on which it determines that no Force Majeure Event exists; and/or
- (iii) permanently cancel publication of the relevant Index Level.

(f) Hedging Disruption Event

If the Index Administrator determines that it and/or any of its Affiliates would be unable, after using commercially reasonable efforts, to: (a) acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction(s) or asset(s) it deems necessary to hedge its position in relation to any securities issue, financial instrument or other relevant financial transaction relating to or calculated by reference to an Index; or (b) realise, recover or remit the proceeds of any such transaction(s) or asset(s) has occurred or exists on an Index Business Day, the Index Administrator may, in its sole and absolute discretion:

- (i) make such determinations and/or adjustments to the terms contained in this Index Description as it considers appropriate to determine the relevant Index Level in respect of such Index Business Day; and/or
- (ii) defer publication of the relevant Index Level in respect of such Index Business Day until the next Index Business Day on which it determines that no Hedging Disruption Event exists; and/or
- (iii) permanently cancel publication of the relevant Index Level.

(g) Overview

Any such adjustments and/or determinations or decisions to permanently cease to calculate and publish an Index Level in respect of the Index pursuant to sub-Sections 6(b), (c), (d), (e) or (f) shall be made by the Index Administrator as far as reasonably practicable in accordance with Section 10 (*Changes to and Retiring a Benchmark*) of the Overview.

7. ADJUSTMENT PROVISIONS

Change in methodology

In calculating and determining the value of the Index, the Index Administrator will, subject as provided below, employ the methodology described herein and its application of such methodology shall be conclusive and binding. While the Index Administrator currently employs the above described methodology to calculate the Index, no assurance can be given that market, regulatory, judicial, financial, fiscal or other circumstances (including, but not limited to, any changes to or any suspension or termination of any constituent of the Index or any other events affecting transactions on the same or similar terms to any described herein) will not arise that would, in the view of the Index Administrator, necessitate or make desirable a modification of or change to such methodology.

Accordingly:

- (i) The Index Administrator shall be entitled to make such modifications and/or changes as it deems appropriate, including (without limitation):
 - (a) to correct any manifest error or proven error contained in the methodology described herein; and/or
 - (b) to cure, correct or supplement any defective provision contained in the methodology described herein; and/or
 - (c) if market, regulatory, juridical, financial, fiscal or other circumstances arise, and such circumstances would, in the determination of the Index Administrator, necessitate or make desirable such a modification or change of the methodology described herein (including, but without limitation, a change in the frequency of calculation of any Index Level) in order for the Index to continue being calculated and determined notwithstanding the relevant circumstances. In deciding what is necessary the Index Administrator will consider and/or take into account what the Index Administrator determines to be the intended strategy of the Index;

- (ii) Further, and without limitation to the above provisions, the Index Administrator shall be entitled to make such modifications and/or changes as it deems appropriate:
 - (a) to preserve the intended strategy of the Index, where such modification and/or change is of a formal, minor or technical nature; and/or
 - (b) if market, regulatory, juridical, financial, fiscal or other circumstances arise, and in the determination of the Index Administrator, such modifications and/or changes would assist in maintaining the intended strategy of the Index and/or would ensure that the Index can continue to be calculated and determined by the Index Administrator in light of such circumstances.

In making such modifications however the Index Administrator will:

- (i) ensure that such modifications or changes pursuant to (i) or (ii) above will result in a methodology that is consistent in its intended commercial purpose with the methodology described in this Index Description; and
- (ii) limit any such modification or change to the terms of the Index and/or method of calculating the Index Level.

The Index Administrator may, in its discretion, at any time and without notice, terminate the calculation and publication of the Index pursuant to Section 10.2 (*Benchmark Retirement*) of the Overview.

The Overview sets out the process for making changes to its benchmarks as a general matter and the internal oversight and approval process that DBIQ will go through. It also sets out DBIQ's procedures for consulting on and notifying changes. Any such modification or change in methodology described in this Description shall be made in accordance with Section 10.1 (*Change to a Benchmark*) of the Overview.

8. CONFLICT OF INTEREST

Conflicts of interest may exist or arise between the Index Administrator and Deutsche Bank entities acting in other capacities, including as Administrator for the Index, as counterparty to a transaction or as contributor of forecasts that feed into the calculation of the index. Each relevant Deutsche Bank entity will pursue actions and take steps that it deems appropriate to protect its own interests without regard to the consequences for investors in respect of any investment or instrument linked or relating to the Index or otherwise.

Deutsche Bank entities shall be entitled to receive fees or other payments pursuant to investments or instruments linked or relating to the Index or otherwise and to exercise all rights, including rights of termination or resignations, which they may have, even though doing so may have a detrimental effect on investors in any investment or instrument linked or relating to the Index

Annex 1

Nearby Futures Contracts

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Index Commodity	F+	F+	F+	J+	J+	J+	N+	N+	N+	V+	V+	V+
MAL	F+	F+	F+	J+	J+	J+	N+	N+	N+	V+	V+	V+
MPB	F+	F+	F+	J+	J+	J+	N+	N+	N+	V+	V+	V+
MCU	F+	F+	F+	J+	J+	J+	N+	N+	N+	V+	V+	V+
MNI	F+	F+	F+	J+	J+	J+	N+	N+	N+	V+	V+	V+
MZN	F+	F+	F+	J+	J+	J+	N+	N+	N+	V+	V+	V+

One Month Forward Futures Contracts

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Index Commodity	G+	G+	G+	K+	K+	K+	Q+	Q+	Q+	X+	X+	X+
MAL	G+	G+	G+	K+	K+	K+	Q+	Q+	Q+	X+	X+	X+
MPB	G+	G+	G+	K+	K+	K+	Q+	Q+	Q+	X+	X+	X+
MCU	G+	G+	G+	K+	K+	K+	Q+	Q+	Q+	X+	X+	X+
MNI	G+	G+	G+	K+	K+	K+	Q+	Q+	Q+	X+	X+	X+
MZN	G+	G+	G+	K+	K+	K+	Q+	Q+	Q+	X+	X+	X+

Two Month Forward Futures Contracts

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Index Commodity	H+	H+	H+	M+	M+	M+	U+	U+	U+	Z+	Z+	Z+
MAL	H+	H+	H+	M+	M+	M+	U+	U+	U+	Z+	Z+	Z+
MPB	H+	H+	H+	M+	M+	M+	U+	U+	U+	Z+	Z+	Z+
MCU	H+	H+	H+	M+	M+	M+	U+	U+	U+	Z+	Z+	Z+
MNI	H+	H+	H+	M+	M+	M+	U+	U+	U+	Z+	Z+	Z+
MZN	H+	H+	H+	M+	M+	M+	U+	U+	U+	Z+	Z+	Z+

Annex 2

Month Index Commodity	<u>Schedule for variable "X"</u>											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
MAL	Q1+	Q1+	Q1+	Q2+	Q2+	Q2+	Q3+	Q3+	Q3+	Q4+	Q4+	Q4+
MPB	Q1+	Q1+	Q1+	Q2+	Q2+	Q2+	Q3+	Q3+	Q3+	Q4+	Q4+	Q4+
MCU	Q1+	Q1+	Q1+	Q2+	Q2+	Q2+	Q3+	Q3+	Q3+	Q4+	Q4+	Q4+
MNI	Q1+	Q1+	Q1+	Q2+	Q2+	Q2+	Q3+	Q3+	Q3+	Q4+	Q4+	Q4+
MZN	Q1+	Q1+	Q1+	Q2+	Q2+	Q2+	Q3+	Q3+	Q3+	Q4+	Q4+	Q4+

Annex 4
Description of the Deutsche Agriculture Fundamental Fair Value USD ER Index



Description of the Deutsche Bank Agriculture Fundamental Fair Value USD ER Index™

Date: 12 June 2018

Version: 2

In the event of any inconsistency between the English language version of the text below and that which may be translated into any other language, the English language version shall prevail. Terms used herein have the meaning given to them in Section 3 (*Definitions*).

All determinations of the Index Administrator described herein shall be made according to the terms set out herein and, save for manifest error, shall be final and binding on all parties.

The Index Administrator is not obliged to enter into, or promote, transactions or investments that are linked to the Index.

Subject as required by law, the Index Administrator is under no obligation to maintain or calculate the Index and may cancel or cease to calculate the Index at any time without notice.

The Index Administrator does not assume any obligation or duty to any party and under no circumstances does the Index Administrator assume any relationship of agency or trust or of a fiduciary nature for or with any party. Any calculations or determinations in respect of the Index or any part thereof shall be made by the Index Administrator acting reasonably and in good faith and shall (save in the case of manifest error) be final, conclusive and binding. The term "manifest error" as used herein shall mean an error that is plain and obvious and can be identified from the results of the calculation or determination itself without: (i) recourse to any underlying data; or (ii) any application or re-application of any formulae.

The Index Administrator may delegate and/or transfer any of its obligations and/or functions to one or more third parties as it deems appropriate from time to time.

The Index Administrator makes no express or implied representations or warranties as to (a) the advisability of purchasing or assuming any risk in connection with any transaction which references or is otherwise linked to this Index, (b) the levels at which the Index stands at any particular time on any particular date, (c) the results to be obtained by any party from the use of the Index or any data included in it for the purposes of issuing securities or carrying out any financial transaction or (d) any other matter. Calculations may be based on information obtained from various publicly available sources. The Index Administrator has relied on these sources and has not independently verified the information extracted from these sources and accepts no responsibility or liability in respect thereof. If there is a calculation error the Index Administrator may restate the Index Level.

Without limiting any of the foregoing, in no event shall the Index Administrator have any liability (whether in negligence or otherwise) to any person in connection with such person's unauthorised use of the Index. "Unauthorised use" shall be construed as any use of the Index except where such use is pursuant to a transaction between a party and Deutsche Bank AG in respect of the Index.

Without limiting any of the foregoing, where use of the Index by a party is pursuant to a transaction between that party and Deutsche Bank AG, in no event shall the Index Administrator have any liability to any person except where such liability arises from the Index Administrator's wilful default, negligence resulting from a breach of material obligations only, or gross negligence in all other respects.

Nothing herein shall be taken to exclude any liability for fraud on the part of the Index Administrator.

Without prejudice to the foregoing, in no event shall the Index Administrator have any liability for any indirect, special, punitive or consequential damages (provided that any such damage is not reasonably foreseeable) even if notified of the possibility of such damages.

Conflicts of Interest

Conflicts of interest may exist or arise between the Index Administrator and Deutsche Bank entities acting in other capacities, including as Administrator for the Index or as counterparty to a transaction or as contributor of forecasts that feed into the

calculation of the index. Each relevant Deutsche Bank entity will pursue actions and take steps that it deems appropriate to protect its own interests without regard to the consequences for investors in respect of any investment or instrument linked or relating to the Index or otherwise.

Deutsche Bank entities shall be entitled to receive fees or other payments pursuant to investments or instruments linked or relating to the Index or otherwise and to exercise all rights, including rights of termination or resignations, which they may have, even though doing so may have a detrimental effect on investors in any investment or instrument linked or relating to the Index.

Trading and other transactions by Deutsche Bank AG or its affiliates

Deutsche Bank AG and/or its affiliates may hedge its obligations under any relevant instruments or financial products linked to the Index by purchasing or selling securities and other assets, or listed or over-the-counter options, futures, swaps or other derivative financial instruments underlying or linked to the Index. Although they are not expected to, any of these hedging activities may adversely affect the value of such assets, and therefore the Index Level or the value of any relevant instruments or financial products linked to the returns from these hedging activities while the level of the Index and/or relevant instruments or financial products linked to the Index declines.

Deutsche Bank AG and/or its affiliates may also engage in trading in securities and other assets, or listed or over-the-counter options, futures, swaps or other derivative financial instruments underlying or linked to the Index on a regular basis as part of their general broker-dealer and other businesses, for proprietary accounts, for other accounts under management or to facilitate transactions for customers. Any of these activities could adversely affect the value of such assets, and therefore the Index Level or the value of any relevant instruments or financial products linked to the Index. With respect to any of these activities, neither Deutsche Bank AG nor any of its affiliates has any obligation to take the level of the Index into consideration at any time.

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customers, in connection with the administration, marketing or trading of the Product(s). Notwithstanding the foregoing, UBS AG, UBS Securities and their respective subsidiaries and affiliates may independently issue and/or sponsor financial products unrelated to the Products currently being issued by Licensee, but which may be similar to and competitive with the Products. In addition, UBS AG, UBS Securities and their subsidiaries and affiliates actively trade commodities, commodity indexes and commodity futures, as well as swaps, options and derivatives which are linked to the performance of such commodities, commodity indexes and commodity futures. It is possible that this trading activity will affect the value of the Bloomberg Commodity Index and Products.

This document is referred to as the **Index Description** and consists of the following Sections:

Section:	Page
1. Introduction to the Index	3
2. Index Risk Factors	4
3. Definitions	6
4. Index Calculation	11
5. Index Publication	17
6. Disruption Events	18
7. Adjustment Provisions	21

The Deutsche Bank Agriculture Fundamental Fair Value USD ER Index (the **Index**) is a Deutsche Bank AG proprietary index. The Index is the intellectual property of Deutsche Bank AG (**Deutsche Bank AG** or the **Index Owner**, which expression shall include any successor in such capacity). The Index Owner owns the copyright and all other intellectual property rights in the Index and this Index Description. Any use of these intellectual property rights must be with the prior written consent of the Index Owner.

The Index will be governed by the Index Administrator (as defined below). The initial Index Administrator shall be Deutsche Bank AG operating through Deutsche Bank Index Quant (**DBIQ**), a research unit within Deutsche Bank AG via its internal processes and the **Index Administrator** shall mean Deutsche Bank AG acting in such capacity or any successor thereto. The Index Administrator controls the creation and operation of the Index administrative process, including all stages and processes involved in the production and dissemination of the Index. Notwithstanding that the Index relies on information from third party sources, the Index Administrator has primary responsibility for all aspects of the Index administration and determination process.

The Index Administrator has implemented and maintains the DBIQ User Guidance and Administrator Handbook Overview (the **Overview**), which sets out a summary of the policies, procedures and controls implemented by the management of the Index Administrator to promote sound business practices for the lifecycle management of the Index Owner's proprietary benchmarks by the Index Administrator. The Overview also includes the Index Administrator's policy related to quality of benchmarks and input data management. Additional issues related to governance, controls, benchmark classification and risk controls, restatement and calculation error management, periodic reviews and conflicts of interest are also addressed. The Overview does not form part of this Index Description or of any document into which this Index Description may be incorporated.

1. INTRODUCTION TO THE INDEX

This section summarises a number of features of the Index. This section should be read as a summary introduction to the Index Description but is no substitute for reviewing the Index Description in full. Capitalised terms not otherwise defined shall have the meanings given in Section 3 (Definitions).

The Index to which this Index Description relates is owned by the Index Owner and is administered by the Index Administrator. Certain key features of the Index are as follows:

- The Index tracks a rules-based strategy notionally investing in commodity sub-indices by taking a nominal long or short position based on the relative undervaluation or overvaluation of the futures' prices.
- The Index Level will, subject as provided below, be calculated in respect of each Index Business Day by the Index Administrator and may be used in connection with one or more financial products (each a **Financial Product**) relating to the Index. The Financial Products may be issued or entered into by Deutsche Bank AG, London Branch or other financial product providers. Each investor in relation to Financial Products is referred to as a **Financial Product Investor**.
- Although the Index Administrator will obtain information for inclusion in or for use in the calculation of the Index from sources which the Index Administrator considers reliable, the Index Administrator will not independently verify such information and does not guarantee the accuracy and/or the completeness of the Index or any data included in the Index. The Index Administrator shall not be liable (whether in negligence or otherwise) to any person for any error in the Index and the Index Administrator is under no obligation to advise any person of any error therein.
- All determinations referred to below will be made by the Index Administrator by reference to such factors as it deems appropriate and such determinations will, save for manifest error, be binding on all parties.
- The Index is "notional" in nature. This means that the Index Administrator is not obliged to enter into transactions in respect of each commodity future in order to calculate the Index.
- The Index contains Disruption Event provisions which apply when events require the Index Administrator to calculate the Index on an alternative basis were such event to occur or exist on such day, as described in Section 6 (*Disruption Events*) below. If a Disruption Event occurs, the Index Administrator may make such adjustments and/or determinations in relation to the Index as it may determine, in its sole and absolute discretion, appropriate to facilitate the calculation and publication of the Index Level or, if such adjustment or calculation cannot be made, defer calculation and publication of the Index Level and, in some cases, permanently cease to calculate the Index. These events may have an adverse effect on Financial Product Investors. Index Levels which are calculated following any such delay may give different economic results in relation to the Financial Products than the Index Levels which would have prevailed but for such delay. If the Index is cancelled or adjusted, this may lead to the calculation agent in respect of a Financial Product taking action under provisions of the Financial Product which may have an adverse effect on Financial Product Investors.
- The Index contains Adjustment Event provisions which entitle the Index Administrator to make such modifications and/or changes in its reasonable discretion deems appropriate, as described in Section 7 (*Adjustment Provisions*) below. If market, regulatory, judicial, financial, fiscal or other circumstances arise that would, in the determination of the Index Administrator, necessitate or make desirable a modification or change to this Index Description in order for the Index to continue to be calculated and determined notwithstanding the relevant circumstances, the Index Administrator may make such modifications or changes.
- This Section 1 (*Introduction to the Indices*) is subject to and qualified by the remainder of this Index Description.
- The Index Level will be expressed in the Index Currency.

2. INDEX RISK FACTORS

The risk factors set out in this Section 2 (*Index Risk Factors*) are not a comprehensive list of all risks that might have an adverse effect on the value of the Index. When considering an investment in a Financial Product, prospective Financial Product

Investors should review carefully the whole of the Index Description and form their own decisions as to risks associated with the Index Administrator and the Index.

Risks relating to the Index

Volatility of Commodities: Trading in commodities is speculative and may be extremely volatile. Commodity prices are affected by a variety of factors that are unpredictable including, for example, changes in supply and demand relationships, weather patterns and extreme weather conditions, environmental disasters, governmental programmes and policies, national and international political, military, terrorist and economic events, fiscal, monetary and exchange control programmes and changes in interest and exchange rates. Commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, the participation of speculators and government regulation and intervention. These circumstances could also adversely affect prices of the relevant commodity. Therefore, commodity prices may be more volatile than other asset classes.

Commodity Futures: The price of a futures contract on a commodity will generally be at a premium or at a discount to the spot price of the underlying commodity. Accordingly, products linked to commodity futures contracts may provide a different return than products linked to the relevant physical commodity.

Index Rebalancing: Each Index is rebalanced and the weight assigned to each Sub-Index is adjusted with effect from each Rebalancing Day and remains fixed until the next Rebalancing Day. Therefore, any sudden changes (positive or negative) to a Sub-Index and the trend in respect of the performance of each Sub-Index in between Rebalancing Days will not be taken into consideration in calculating the Index Level until the next Rebalancing Day.

Index Administrator's Powers: The Index Administrator has a number of discretions in relation to an Index, which always have to be exercised in good faith and in a commercially reasonable manner. Nevertheless the exercise of these discretions may have a significant effect on Financial Products. In particular:

- If a Disruption Event occurs, the Index Administrator may make such adjustments and/or determinations in relation to the Index as it may determine, in its sole and absolute discretion, appropriate to facilitate the calculation and publication of the Index Level or postpone or cancel and permanently cease to calculate an Index. A Disruption Event may occur, amongst other things, as a result of the failure of trading to commence, or the permanent discontinuation of trading in any relevant futures contract.
- If market, regulatory, judicial, financial, fiscal or other circumstances arise that would necessitate or make desirable a modification or change to this Index Description, the Index Administrator may make such modifications or changes.

General risks

Multiple roles of Deutsche Bank Entities: Conflicts of interest may exist between the Index Owner, initial Index Administrator and Deutsche Bank AG, London Branch and its affiliates (each a **Deutsche Bank Entity**).

A Deutsche Bank Entity may also act as the issuer of, or an obligor under, a Financial Product and as a dealer, calculation agent or hedge provider in relation to a Financial Product. Various conflicts of interest might exist or arise as a result of these different roles as well as from the overall activities of Deutsche Bank Entities. Deutsche Bank AG has a regulatory obligation to take reasonable steps to manage such conflicts fairly. Such reasonable steps include information walls being maintained between the personnel of Deutsche Bank Entities involved in different roles. However, as with any set of systems and controls there is a risk that such information walls might not be effective in all cases.

No disclosure of information: Deutsche Bank Entities may be in possession at any time of information in relation to the Index which may not be available to Financial Product Investors. There is no obligation on any Deutsche Bank Entity to disclose to Financial Product Investors any such information.

Fees: Deutsche Bank Entities shall be entitled to receive fees or other payments and exercise all rights, including rights of termination or resignation, which they may have, even though this may have a detrimental effect on the Index and Financial Products.

Hedging Arrangements: The Index is calculated as a "notional" index. This means that the Index reflects the performance of notional commodity futures contracts as further outlined and detailed in each Sub-Index, but there is no requirement for the Index Administrator to enter into commodity futures contracts in relation to such commodity futures contracts in order to calculate the Index. Deutsche Bank Entities may enter into commodity futures contracts in order to meet obligations in respect of Financial Products or for any other purpose, but Deutsche Bank Entities are not required to do this. If they do, Deutsche Bank Entities will have certain rights pursuant to such futures contracts and will pursue actions and take steps that they deem appropriate to protect their own interests.

Political and Economic Factors: Commodity futures may be influenced by a number of circumstances, including but not limited to political events, general economic conditions, government intervention, changes in balances of payments and trade, domestic and international rates of inflation, international trade restrictions and currency devaluations. Any such circumstance (or a combination of them) may cause unexpected volatility or illiquidity in the commodity futures markets. This may have an adverse effect on Index Levels which may in turn have an adverse effect on the performance of Financial Products.

Future Regulatory Change in respect of commodity futures: Legal and regulatory changes could adversely affect commodity futures. In addition, many governmental agencies and regulatory organisations are authorised to take extraordinary actions in the event of market emergencies. The effect of any future legal or regulatory change on commodity futures is not possible to predict, but could be substantial and adverse.

Future Regulatory Change in respect of indices: Legal and regulatory changes could adversely affect indices including the Index or any Sub-Index. The effect of any future legal or regulatory change on indices may not be possible to predict, but could be substantial and adverse.

3. DEFINITIONS

Affiliate means, in respect of the Index Administrator, any entity controlled, directly or indirectly, by the Index Administrator, any entity that controls, directly or indirectly, the Index Administrator or any entity directly or indirectly under common control with the Index Administrator. For this purpose, **control** of any entity or person means ownership of a majority of the voting power of the entity or person.

Annual Eligible Commodities has the meaning given to such term in Section 4(h) (*Annual Review*).

Annual Review has the meaning given to such term in Section 4(h)(i) (*Annual Review*).

Average Quarterly Futures (AQF) Price means, in respect of an Index Commodity and an Index Selection Day, the Price of the futures contract identified by Contract Month in Annex 1 hereto corresponding to the calendar month in which such Index Selection Day falls and the Index Commodity, using the table headed "Nearby Futures Contracts", as determined by the Index Administrator.

Expressed as a formula:

$$AQF_i(s) = F_i(s,1)$$

Where:

AQF_i(s) means, in respect of an Index Selection Day and an Index Commodity, the Average Quarterly Futures (AQF) Price in respect of the Index Commodity in respect of such Index Selection Day; and

F_i(s, 1) means, in respect of an Index Selection Day and an Index Commodity, the Price of the nearby

futures contract identified by Contract Month in Annex 1 hereto corresponding to the calendar month in which such Index Selection Day falls and the Index Commodity, using the table headed "Nearby Futures Contracts", as determined by the Index Administrator.

Base Weight means, in respect of:

- (i) Corn Subindex, 18.00 per cent. (expressed as 0.18);
- (ii) Soybeans Subindex, 23.00 per cent. (expressed as 0.23);
- (iii) Soybean Meal Subindex, 20.00 per cent. (expressed as 0.20);
- (iv) Soybean Oil Subindex, 22.00 per cent. (expressed as 0.22); and
- (v) Chicago Wheat Subindex, 17.00 per cent. (expressed as 0.17).

BCOM Methodology means the Bloomberg Commodity Index Methodology published by UBS Securities LLC together with Bloomberg Finance L.P. dated February 2017 as may be amended, supplemented, replaced and/or restated from time to time.

Bloomberg means Bloomberg L.P. or any successor thereto.

Bloomberg Analyst Survey means, a prediction of commodity prices by analysts designated by Bloomberg.

Bloomberg Ticker means, in respect of:

- (i) C, *AGRFCA "X" <Index>*;
- (ii) S, *AGRFSA "X" <Index>*;
- (iii) SM, *AGRFSM "X" <Index>*;
- (iv) BO, *AGRFBO "X" <Index>*, and
- (v) W, *AGRFWA "X" <Index>*,

in each case, as determined by the Index Administrator where "X" has the meaning given below in this Section 3 (*Definitions*).

Chicago Wheat Subindex means the Bloomberg Chicago Wheat Subindex as published on Bloomberg page *.BCOMWH6 <Index>* or any Successor Source thereto.

Contract Month means, in respect of a Futures Contract, the contract month by which such Futures Contract is identified, as set out in Annex 1 hereto, as determined by the Index Administrator, where:

- (i) F means January;
- (ii) G means February;
- (iii) H means March;
- (iv) J means April;
- (v) K means May;
- (vi) M means June;
- (vii) N means July;
- (viii) Q means August;
- (ix) U means September;
- (x) V means October;
- (xi) X means November; and
- (xii) Z means December,

and, in each case a "+" following such letter shall mean the relevant month in the following calendar year.

Corn Subindex means the Bloomberg Corn Subindex as published on Bloomberg page *.BCOMCN6 <Index>* or any Successor Source thereto.

DBIQ Website means <http://www.index.db.com>.

Eligible Index Commodity has the meaning given to such term in Section 4(h)(ii) (*Monthly Review*).

Final Weight has the meaning given to such term in Section 4(c) (*Calculating the Final Weight*).

Force Majeure Event means, in respect of the Index, an event or circumstance (including, without limitation, a systems failure, fire, building evacuation, natural or man-made disaster, act of God, armed conflict, act of terrorism, riot or labour disruption or any similar intervening circumstance) which is beyond the reasonable control of the Index Administrator and affects the Index, a Sub-Index, the Related Index Commodity in respect of such Sub-Index or an exchange instrument in respect of such Sub-Index or affects the ability of the Index Administrator to calculate or determine the Index.

Forecast Price means, on an Index Selection Day, in respect of an Eligible Index Commodity, the final forecast price of such Eligible Index Commodity in respect of such Index Selection Day as determined by the Index Administrator on such Index Selection Day by reference to the final Bloomberg Analyst Survey arithmetic mean as published with Bloomberg field "BN_Survey_Average" in respect of such Eligible Index Commodity in respect of such Index Selection Day which is published on the Bloomberg screen page under the Bloomberg Ticker in respect of such Eligible Index Commodity or any Successor Source, *provided that*, if such page is not available for any reason at such time on such Index Selection Day, then the forecast price in respect of such Eligible Index Commodity in respect of such Index Selection Day shall be the Rolled Forecast Price in respect of such Eligible Index Commodity in respect of such Index Selection Day, as determined by the Index Administrator.

Futures Contract means, in respect of an Index Selection Day and an Index Commodity, the futures contract identified by Contract Month in Annex 1 hereto corresponding to the calendar month in which such Index Selection Day falls and the Index Commodity, using the table headed "Nearby Futures Contracts" where such futures contract is a nearby futures contract.

Index has the meaning given to such term on page 2 of this Index Description.

Index Administrator has the meaning given to such term on page 2 of this Index Description.

Index Business Day means:

- (i) prior to 1 January 2010, a day (other than a Saturday or Sunday) on which commercial banks and foreign exchange markets settle payments and are open for general business in New York City; and
- (ii) from and including 1 January 2010, a day (other than a Saturday or Sunday) which is not a holiday in respect of Commodities in the CME Group Chicago Trading Floor Holiday Schedule for the relevant year as published on the CME Group website or any Successor Source thereto.

Index Commencement Date means 3 January 2008.

Index Commodity means, each of:

- (i) Corn ("**C**");
- (ii) Soybean ("**S**");
- (iii) Soybean Meal ("**SM**");
- (iv) Soybean Oil ("**BO**"); and
- (v) Chicago SRW Wheat ("**W**").

Index Currency means USD.

Index Description has the meaning given to such term on page 2 of this Index Description.

Index Level means, in respect of an Index Business Day, an amount, expressed in the Index Currency, being the closing level of the Index in respect of such Index Business Day, as determined by the Index Administrator in accordance with Section 4(b) (*Index Calculation on each Index Business Day*).

Index Selection Day means the first Index Business Day of each month.

Index Valuation Time means the time at which or in respect of which the Index Administrator calculates and publishes the official closing level of the Index.

Initial Annual Eligible Commodities has the meaning given to such term in Section 4(h)(i) (*Annual Review*).

Initial Index Level means 102.00799.

Initial Notional Holding means, in respect of:

- (i) Corn Subindex, zero;
- (ii) Soybeans Subindex, -0.220569;
- (iii) Soybean Meal Subindex, zero;
- (iv) Soybean Oil Subindex, zero; and
- (v) Chicago Wheat Subindex, 0.172733.

Intermediate Weight has the meaning given to such term in Section 4(d) (*Calculating the Intermediate Weights*).

Monthly Review has the meaning given to such term in Section 4(h)(i) (*Monthly Review*).

Notional Holding means, in respect of a Sub-Index and an Index Business Day:

- (xi) if such Index Business Day is not a Rebalancing Day, the Notional Holding in respect of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day (or, if such immediately preceding Index Business Day falls on the Index Commencement Date, the Initial Notional Holding in respect of such Sub-Index); and
- (xii) if such Index Business Day falls on a Rebalancing Day, an amount determined by the Index Administrator as the product of:
 - (m) the Final Weight in respect of the Index Selection Day immediately preceding such Rebalancing Day and such Sub-Index; and
 - (n) the quotient of:
 - (9) the Index Level in respect of such Index Business Day (as numerator); and
 - (10) the Sub-Index Level in respect of such Sub-Index in respect of such Index Business Day (as denominator).

Expressed as formula:

$$U(t, i) = w(s, i) * \frac{IL(t)}{ILO(t, i)}$$

Where:

IL(t) means, in respect of an Index Business Day, the Index Level in respect of such Index Business Day;

ILO(t, i) means, in respect of a Sub-Index and an Index Business Day, the Sub-Index Level in respect of such Sub-Index and such Index Business Day;

$U(t,j)$ means, in respect of a Sub-Index and an Index Business Day, the Notional Holding in respect of such Sub-Index and such Index Business Day; and

$w(s,i)$ means, in respect of an Index Business Day and a Sub-Index, the Final Weight in respect of the Index Selection Day immediately preceding such Rebalancing Day and such Sub-Index.

Price means, in respect of an Index Business Day and a Futures Contract, the official settlement price of such Futures Contract in respect of such Index Business Day as published by the Relevant Exchange in respect of such Futures Contract, as determined by the Index Administrator. If such official settlement price is not published by the Relevant Exchange on such Index Business Day, the Price in respect of such Futures Contract in respect of such Index Business Day shall be determined by the Index Administrator in good faith and a commercially reasonable manner.

Processes means the processes and controls set out in Section 8 (*Input Data Management*) of the Overview (or any successor publication and/or section of such publication that addresses the input data management policy of the Index Administrator).

Rebalancing Day means the second Index Business Day of each month from (but excluding) the Index Commencement Date.

Related Index Commodity means, in respect of a Sub-Index:

- (i) where the Sub-Index is the Corn Subindex, C;
- (ii) where the Sub-Index is the Soybeans Subindex, S;
- (iii) where the Sub-Index is the Soybean Meal Subindex, SM;
- (iv) where the Sub-Index is the Soybean Oil Subindex, BO; and
- (v) where the Sub-Index is the Chicago Wheat Subindex, W.

Relevant Exchange means, in respect of:

- (i) the Corn Subindex, the Chicago Board of Trade CME Group;
- (ii) the Soybeans Subindex, the Chicago Board of Trade CME Group;
- (ii) the Soybean Meal Subindex, the Chicago Board of Trade CME Group;
- (iv) the Soybean Oil Subindex, the Chicago Board of Trade CME Group; and
- (v) the Chicago Wheat Subindex, the Chicago Board of Trade CME Group.

Rolled Forecast Price means, in respect of an Index Selection Day and an Eligible Index Commodity, the Forecast Price of the Eligible Index Commodity Index in respect of the immediately preceding day (other than a Saturday or Sunday) on which a Forecast Price was published, as determined by the Index Administrator.

Soybean Meal Subindex means the Bloomberg Soybean Meal Subindex as published on Bloomberg page *BCOMSM6* <Index> or any Successor Source thereto.

Soybean Oil Subindex means the Bloomberg Soybean Oil Subindex as published on Bloomberg page *BCOMBO6* <Index> or any Successor Source thereto.

Soybeans Subindex means the Bloomberg Soybeans Subindex as published on Bloomberg page *.BCOMSY6* <Index> or any Successor Source thereto.

Spread Signal means has the meaning given to such term in Section 4(g) (*Calculating the Spread Signal*).

Sub-Index means, each of:

- (i) the Corn Subindex;
- (ii) the Soybeans Subindex;
- (iii) the Soybean Meal Subindex;

- (iv) the Soybean Oil Subindex; and
- (v) the Chicago Wheat Subindex.

Sub-Index Level means, in respect of each Sub-Index and an Index Business Day, the official closing level of such Sub-Index in respect of such Index Business Day as calculated and published by the relevant index sponsor of such Sub-Index as determined by the Index Administrator.

Successor Source means, in relation to any display page, other published source, information vendor or provider:

- (i) the successor display page, other published source, information vendor or provider that has been officially designated by the sponsor of the original page or source; or
- (ii) if the sponsor of the original page or source has not officially designated a successor display page, other published source, service or provider (as the case may be), the successor display page, other published source, service or provider, if any, designated by the relevant information vendor or provider (if different from such sponsor).

USD means United States dollars.

X means, in respect of an Index Selection Day and an Index Commodity, the quarter for which the Forecast Price or Rolled Forecast Price, as applicable, is considered in respect of the Relevant Bloomberg Analyst Survey in respect of the Index Commodity in respect of such Index Selection Day as specified in respect of such Index Commodity in the table entitled "Schedule for variable 'X'" at Annex 2 hereto as determined by the Index Administrator and, in each case, a "+" following such quarter shall mean the relevant quarter in the calendar year following such Index Selection Day.

Z-score has the meaning given to such term in Section 4(f) (*Calculating the Z-score*).

4. INDEX CALCULATION

(a) Index Calculation on the Index Commencement Date

The Index is deemed to have been established on the Index Commencement Date.

The Index Level in respect of the Index Commencement Date was equal to the Initial Index Level.

The Index has been calculated back to the Index Commencement Date.

(b) Index Calculation on each Index Business Day

The Index Level on each Index Business Day from (but excluding) the Index Commencement Date shall be an amount (in the Index Currency) calculated by the Index Administrator as the sum of:

- (i) the Index Level in respect of the Index Business Day immediately preceding such Index Business Day (or, if such immediately preceding Index Business Day falls on the Index Commencement Date, the Initial Index Level); and
- (ii) the aggregate in respect of each Sub-Index of the product of:
 - (a)
 - (1) the Sub-Index Level in respect of such Sub-Index and such Index Business Day; minus
 - (2) the Sub-Index Level in respect of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day; and
 - (b) the Notional Holding in respect of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day (or, if such immediately preceding Index Business Day falls on the Index Commencement Date, the Initial Notional Holding in respect of such Sub-Index).

Expressed as a formula:

$$IL(t) = IL(t - 1) + \sum_{i=1}^5 (ILO(t, i) - ILO(t - 1, i)) * U(t - 1, i)$$

Where:

- IL(t)** means, in respect of an Index Business Day, the Index Level in respect of such Index Business Day;
- IL(t-1)** means, in respect of an Index Business Day, the Index Level in respect of the Index Business Day immediately preceding such Index Business Day (or, if such immediately preceding Index Business Day falls on the Index Commencement Date, the Initial Index Level);
- ILO(t,i)** means, in respect of an Index Business Day and a Sub-Index, the Sub-Index Level in respect of such Sub-Index in respect of such Index Business Day;
- ILO(t-1,i)** means, in respect of an Index Business Day and a Sub-Index, the Sub-Index Level in respect of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day; and
- U(t-1,i)** means, in respect of an Index Business Day and a Sub-Index, the Notional Holding of such Sub-Index in respect of the Index Business Day immediately preceding such Index Business Day (or, if such immediately preceding Index Business Day falls on the Index Commencement Date, the Initial Notional Holding in respect of such Sub-Index).

(c) Calculating the Final Weight

On each Index Selection Day, the Index Administrator shall calculate the Final Weight in respect of a Sub-Index in respect of which the Eligible Index Commodity is the Related Index Commodity as an amount equal to:

- (i) if the aggregate of the absolute value in respect of the Intermediate Weights in respect of the Sub-Index in respect of all Eligible Index Commodities in respect of such Index Selection Day is equal to zero, then, in respect of each Sub-Index in respect of each Index Commodity, zero; or
- (ii) if the aggregate of the absolute value in respect of the Intermediate Weights in respect of the Sub-Index in respect of the Eligible Index Commodities in respect of such Index Selection Day is not equal to zero, the quotient of:
 - (a) the Intermediate Weight in respect of the Sub-Index in respect of which the Eligible Index Commodity is the Related Index Commodity (as numerator); and
 - (b) the aggregate of the absolute value in respect of the Intermediate Weights in respect of each Eligible Index Commodity in respect of such Index Selection Day (as denominator),

Any Index Commodity which is not an Eligible Index Commodity, as determined by the Index Administrator is assigned a Final Weight $w(s,i)$ of zero,

expressed as a formula:

$$w(s,i) = \frac{w_I(s,i)}{\sum_i abs(w_I(s,i))}$$

Where:

$w(s,i)$ means, in respect of an Index Selection Day, a Sub-Index and an Index Commodity, the Final Weight in respect of such Sub-Index in respect of such Index Selection Day; and

$w_i(s,i)$ means, in respect of an Index Selection Day, a Sub-Index and an Eligible Index Commodity, the Intermediate Weight in respect of such Sub-Index in respect of such Eligible Index Commodity in respect of such Index Selection Day.

(d) Calculating the Intermediate Weights

On each Index Selection Day, the Index Administrator shall allocate Intermediate Weights in respect of each Sub-Index in respect of which the Eligible Index Commodity is the Related Index Commodity in accordance with the following:

- (i) if there are five Eligible Index Commodities as determined by the Index Administrator, then:
 - (a) each of the Sub-Indices in respect of the top two ranked Eligible Index Commodities, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the positive value of the Base Weight in respect of such Sub-Index;
 - (b) each of the Sub-Indices in respect of the bottom two ranked Eligible Index Commodities, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the negative value of the Base Weight in respect of such Sub-Index; and
 - (c) the Sub-Index in respect of the Eligible Index Commodity ranked third, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to zero;
- (ii) if there are four Eligible Index Commodities as determined by the Index Administrator, then:
 - (a) each of the Sub-Indices in respect of the top two ranked Eligible Index Commodities, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the positive value of the Base Weight in respect of such Sub-Index; and
 - (b) each of the Sub-Indices in respect of the bottom two ranked Eligible Index Commodities, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the negative value of the Base Weight in respect of such Sub-Index;
- (iii) if there are three Eligible Index Commodities as determined by the Index Administrator, then:
 - (a) the Sub-Index in respect of the top ranked Eligible Index Commodity, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the positive value of the Base Weight in respect of such Sub-Index;
 - (b) the Sub-Index in respect of the bottom ranked Eligible Index Commodity, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the negative value of the Base Weight in respect of such Sub-Index; and

- (c) the Sub-Index in respect of the Eligible Index Commodity ranked second, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to zero;
- (iv) if there are two Eligible Index Commodities as determined by the Index Administrator, then:
 - (a) the Sub-Index in respect of the top ranked Eligible Index Commodity, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the positive value of the Base Weight in respect of such Sub-Index; and
 - (b) the Sub-Index in respect of the bottom ranked Eligible Index Commodity, as determined by the Index Administrator pursuant to Section 4(e) (*Assigning the Ranking*) below, shall be assigned an Intermediate Weight equal to the negative value of the Base Weight in respect of such Sub-Index; and
- (v) if there is one Eligible Index Commodity or no Eligible Index Commodities as determined by the Index Administrator, then, a Forecast Price Event shall have occurred for the purposes of Section 6(a)(viii) below.

(e) Assigning the Ranking

On each Index Selection Day the Index Administrator shall rank each Eligible Index Commodity in accordance with the Z-score in respect of such Index Commodity in respect of such Index Selection Day (rounded to eighteen decimal places with 0.000000000000000005 rounded upwards) with the Index Commodity with the greatest Z-score being ranked one and each remaining Eligible Index Commodity being ranked in descending order in accordance with the Z-score in respect of each such Eligible Index Commodity, as determined by the Index Administrator, provided that, if two or more Index Commodities have the same Z-score, as determined by the Index Administrator, such Index Commodities shall be ranked in accordance with the following ranking order, as determined by the Index Administrator:

- (i) W;
- (ii) C;
- (iii) S;
- (iv) SM; and
- (v) BO.

(f) Calculating the Z-score

On each Index Selection Day, the Index Administrator shall calculate the Z-score in respect of each Eligible Index Commodity in respect of such Index Selection Day as an amount equal to the quotient of:

- (i) (a) the Spread Signal in respect of such Eligible Index Commodity in respect of such Index Selection Day; minus
 - (b) the aggregate in respect of such Eligible Index Commodity in respect of each Index Selection Day from and including such Index Selection Day to and including the Index Selection Day which is the eleventh Index Selection Day immediately preceding such Index Selection Day, of the quotient of:
 - (1) the Spread Signal in respect of the Eligible Index Commodity in respect of the Index Selection Day (as numerator); and
 - (2) 12 (as denominator); and
- (ii) in respect of such Eligible Index Commodity in respect of each Index Selection Day from and including such Index Selection Day to and including the Index Selection Day which is the tenth Index Selection Day immediately preceding such Index Selection Day, the standard deviation of:

- (a) the Spread Signal in respect of such Eligible Index Commodity in respect of such Index Selection Day; minus
- (b) the Spread Signal in respect of such Eligible Index Commodity in respect of the Index Business Day immediately preceding such Index Selection Day.

Expressed as a formula:

$$Z_i(s) = \frac{SS_i(s) - \frac{1}{s-10} \sum_{t=s}^{s-11} SS_i(t) / 12}{STDEV(SS_i(t) - SS_i(t-1))_{t=s}^{s-10}}$$

Where:

SS_i(s) means the Spread Signal in respect of such Eligible Index Commodity in respect of such Index Selection Days;

SS_i(t) means in respect of an Index Selection Day t and an Eligible Index Commodity, the Spread Signal in respect of such Eligible Index Commodity in respect of such Index Selection Day t;

SS_i(t-1) means in respect of an Index Selection Day and an Eligible Index Commodity, the Spread Signal in respect of such Eligible Index Commodity in respect of the Index Selection Day immediately preceding such Index Selection Day;

Z_i(s) means, in respect of an Eligible Index Commodity and an Index Selection Day, the Z-score in respect of such Eligible Index Commodity in respect of such Index Selection Day; and

STDEV(SS_i(t) - SS_i(t-1))_{t=s}^{s-10} means the standard deviation in respect of such Eligible Index Commodity in respect of each Index Selection Day, from and including such Index Selection Day to and including the Index Selection Day which is the tenth Index Selection Day immediately preceding such Index Selection Day, as calculated by the Index Administrator in accordance with the following formula:

$$STDEV(SS_i(t) - SS_i(t-1))_{t=s}^{s-10} = \sqrt{\frac{\sum_{i=s}^{s-10} (SS_i(t) - SS_i(t-1))^2}{10}}$$

(g) Calculating the Spread Signal

On each Index Selection Day the Index Administrator shall calculate the Signal Spread in respect of each Eligible Index Commodity as an amount equal to:

- (i) the quotient of:
 - (a) the Forecast Price in respect of such Eligible Index Commodity in respect of such Index Selection Day (as numerator); and
 - (b) the Average Quarterly Futures (AQF) Price in respect of such Eligible Index Commodity in respect of such Index Selection Day (as denominator); minus
- (ii) 1.00.

Expressed as a formula:

$$SS_i(s) = (Forecast_i(s) / AQF_i(s)) - 1$$

Where:

- AQF_i(s)** means, in respect of an Index Selection Day and an Eligible Index Commodity, the Average Quarterly Futures (AQF) Price in respect of such Eligible Index Commodity in respect of such Index Selection Day;
- Forecast_i(s)** means, in respect of an Index Selection Day and an Eligible Index Commodity, the Forecast Price in respect of such Eligible Index Commodity in respect of such Index Selection Day; and
- SS_i(s)** means, in respect of an Index Selection Day and an Eligible Index Commodity, the Spread Signal in respect of such Eligible Index Commodity in respect of such Index Selection Day.

(h) Determination of Eligible Index Commodities

In order to determine the Eligible Index Commodities (the “**Eligible Index Commodities**”) in respect of an Index Selection Day, the Index Administrator shall undertake to conduct Annual Reviews and Monthly Reviews in respect of the Index Commodities in accordance with the Annual Review and Monthly Review sections below, as applicable.

(i) Annual Review

In respect of each Index Selection Day falling in December, the Index Administrator shall, on the fifth Index Business Day immediately succeeding such Index Selection Day, determine the Initial Annual Eligible Commodities in respect of the Index in respect of the immediately following calendar year (the “**Annual Review**”) where “**Initial Annual Eligible Commodities**” means, in respect of an Index Selection Day falling in December, an Index Commodity in which the number of analysts contributing Rolled Forecast Prices as of the Index Selection Days in at least six months of the calendar year in which such Index Selection Day falls is greater than or equal to five, as determined by the Index Administrator.

If the number of such Initial Annual Eligible Commodities is less than two the Index Administrator shall include such other Index Commodities as necessary so that there are four such Index Commodities in accordance with the following ranking order (including for the avoidance of doubt, any that are missing so that, for example, if only one Index Commodity being S was included in the Initial Annual Eligible Commodities, W would be included in the Initial Annual Eligible Commodities) as determined by the Index Administrator for:

- (a) W;
- (b) C;
- (c) S;
- (d) SM; and
- (e) BO,

and such Index Commodities shall comprise the Annual Eligible Commodities (the “**Annual Eligible Commodities**”).

(ii) Monthly Review:

On each Index Selection Day, the Index Administrator shall undertake to review each Annual Eligible Commodity in respect of such Index Selection Day to determine whether there has been a minimum of three analysts contributing to the mean forecast price in respect of such Annual Eligible Commodity in respect of the immediately preceding Index Selection Day (the “**Three Analyst Requirement**” and such review the “**Monthly Review**”). The Three Analyst Requirement will be deemed satisfied in respect of an Index Selection Day and an Annual Eligible Commodity where an update has occurred in respect of the “last_update_dt” Bloomberg field in respect of the Bloomberg Tickers in respect of each Annual Eligible

Commodity, as determined by the Index Administrator. If the Three Analyst Requirement in respect of such Index Selection Day is not satisfied then such Annual Eligible Commodity shall not to be an Eligible Index Commodity in respect of such Index Selection Day.

(i) Miscellaneous

The Index Level in respect of each Index Business Day shall be calculated to six decimal places with 0.0000005 being rounded upwards (such level being the **Calculated Index Level** in respect of such Index Business Day) and published to four decimal places with 0.00005 being rounded upwards, as set out in the section headed "Index Publication" below. The Index Administrator shall make available the Calculated Index Level in respect of each Index Business Day (including, for the avoidance of doubt, if requested, any historical Calculated Index Levels) on application to DBIQ at the Index Administrator's principal office in London for the time being at Winchester House, 1 Great Winchester Street, London EC2N 2DB.

The methodology described in this Section 4 (*Index Calculation*) is subject to the provisions set out in Section 6 (*Disruption Events*) and Section 7 (*Adjustment Provisions*).

5. Index Publication

(a) Availability of Index Levels and Adjustments

The Index Administrator will make available (a) the Index Level in respect of the Index in respect of each Index Business Day as soon as reasonably practicable after the Index Valuation Time on such Index Business Day and (b) details of any adjustments made to the Index, in each case, on application to DBIQ at the Index Administrator's principal office in London for the time being at Winchester House, 1 Great Winchester Street, London EC2N 2DB.

In addition, the Index Level and details of any changes to any Relevant Exchange and consequential changes as a result thereof will be available on the DBIQ Website (or any successor sources that the Index Administrator shall elect from time to time).

(b) Corrections and/or Recalculations

In the event that any price or level published on any date which is utilised for any calculation or determination in respect of the Index is subsequently corrected and/or recalculated in accordance with its terms or description (as the case may be), or the Index Administrator identifies an error or omission in any of its calculations or determinations in respect of the Index, the Index Administrator may, in its sole discretion adjust or correct any relevant terms, calculations or determinations in respect of the Index to take into account such correction(s), recalculation(s), error(s) or omission(s) (as the case may be) but is not obliged to do so.

(c) Miscellaneous

Any publication described in this Section 5 (*Index Publication*) may be restricted by means determined as appropriate for such purpose by the Index Administrator in its sole and absolute discretion including, but not limited to, password protection on the DBIQ Website restricting access to a limited set of persons in accordance with arrangements agreed between the Index Administrator and such persons.

The Index Administrator may, at any time and without notice, change with respect to the Index the place of publication of the Index Level.

The Index Administrator may, at any time and without notice, change the frequency of publication of the Index Level.

The Index Administrator accepts no legal liability to any person for publishing or not continuing to publish for any period of time any Index Level at any particular place or any particular time.

In the event of any ambiguity in, or dispute about the meaning of, any of the provisions of this Index Description, the Index Administrator shall, in its sole and absolute discretion, construe the relevant provision(s) in order to determine the correct interpretation thereof, and the decision of the Index Administrator shall be final.

6. DISRUPTION EVENTS

(a) General

Disruption Event means, in respect of the Index and an Index Business Day, an event that would require the Index Administrator to calculate the Index on an alternative basis were such event to occur or exist on such day, all as determined by the Index Administrator in its sole and absolute discretion.

Without limitation, each of the following may be a Disruption Event if so determined by the Index Administrator in its sole and absolute discretion:

- (i) the Index Administrator determines that a Sub-Index Level in respect of a Sub-Index is not published within the scheduled or usual timeframe for publication in respect of an Index Business Day;
- (ii) the relevant Relevant Exchange fails to calculate and announce the Price in respect of a Futures Contract in respect of a Sub-Index, invested in such Sub-Index as per the contract schedule given in the BCOM Methodology on the relevant Index Business Day;
- (iii) the relevant index sponsor (howsoever described) in respect of Sub-Index, fails to calculate and announce the relevant level in respect of the relevant Sub-Index on the relevant Index Business Day;
- (iv) trading in the relevant futures contract or options in respect of such futures contract, in each case, in respect of a relevant Sub-Index is subject to material suspension or material limitation or the Relevant Exchange or relevant index sponsor (howsoever described) in respect of a Sub-Index, in respect of such futures contract or options in respect of such futures contract is not open for trading for any reason (including a scheduled closure);
- (v) the permanent discontinuation of trading in the relevant futures contract or options in respect of such futures contract, in each case, in respect of a relevant Sub-Index;
- (iv) the permanent discontinuation of publication of the relevant Sub-Index;
- (v) any event in connection with which the Index Administrator is (or would be) unable to calculate the relevant Index level after using commercially reasonable efforts;
- (vi) in respect of a relevant Related Index Commodity and the Relevant Exchange in respect of such Related Index Commodity, a suspension or limitation imposed on trading by such Relevant Exchange or otherwise, including, without limitation, where such suspension or limitation is imposed by reason of movements in Price reaching or exceeding limits permitted by such exchange, as determined by the Index Administrator (a "**Limit Event**").
- (vii) Price Source Disruption:
 - (a) the relevant price source in respect of relevant futures contract or underlying commodity is temporarily or permanently discontinued, unavailable or not announced or published thereby preventing or restricting the availability of the information necessary for determining the Index; or
 - (b) following the application of the Processes in relation to any data obtained from the relevant price source in respect of relevant futures contract or underlying commodity, the Index Administrator determines in good faith and a commercially reasonable manner that such data does not accurately and reliably represent the interest purported to be measured by that data ; or
- (viii) Bloomberg fails to publish the relevant Forecast Price of any Eligible Index Commodity or the occurrence of either of the events specified in Section 4(d)(v) above (each a "**Forecast Price Event**").

(b) Consequences of Limit Event Disruption

If a Limit Event in respect of a relevant futures contract in respect of a relevant Sub-Index occurs on any Index Business Day, the Index Administrator may make the following

adjustments and/or determinations in relation to the calculation of the relevant Index level in respect of such Index Business Days:

- (i) the Index Level will be calculated using published levels of the relevant future prices and or the relevant Sub-Index on such Index Business Days; and/or;
- (ii) if an Index Rebalancing Day has occurred with respect to the Index during such Limit Event and if at least one of the disrupted futures contract is invested in the relevant Sub-Index, following the end of the Limit Event the relevant Sub-Index Level will be recalculated using the Price immediately following the Limit Event of the relevant futures contract in respect of the relevant Sub-Index. Index Levels and corresponding Notional Holdings in the relevant Sub-Index from (and including) the Index Business Day immediately following such a Limit Event will be based on the recalculated levels of the relevant Sub-Index.

(c) Consequences of Forecast Price Event Disruption

If a Forecast Price Event in respect of an Eligible Index Commodity occurs on any Index Business Day, the Index Administrator may make the following adjustments and/or determinations in relation to the calculation of the relevant Index level in respect of such Index Business Days:

- (i) the Index Level will be calculated using the Forecast Price of the Eligible Index Commodity in respect of the immediately preceding Index Business Day on which a Forecast Price was published, as determined by the Index Administrator; provided that where any such Forecast Price Event occurs and continues for a period of thirty (30) consecutive Index Business Days, then the Index Administrator may:
 - (a) calculate and publish the Index Level relating to each Index Business Day falling in or after such period having regard to the then prevailing market conditions, the last reported price, value, rate or level of any instrument relating to the Index and such other factor(s) and condition(s) that the Index Administrator considers relevant for the purpose of determining such Index Levels including, but not limited to, any modifications that the Index Administrator determines to be appropriate in relation to reconstitution relating to the Index; and/or
 - (b) permanently cease to calculate and publish the relevant Index Level as of the Index Business Day following the last Index Business Day for which the Index Administrator calculated and published the relevant Index Level in accordance with sub-section (i) above (if any) and, in each case, as applicable, such Index shall terminate; and/or
- (ii) if a Forecast Price Event occurs with respect to Forecast Price of any commodity, the Index Administrator, in its sole and absolute discretion, shall make any such appropriate adjustments to the universe of Index Commodities.

(d) Consequences of Disruption Events that are not Limit Events or Forecast Price Events

If a Disruption Event in respect of the Index or a Sub-Index occurs or subsists on an Index Business Day, that in the determination of the Index Administrator prevents or otherwise affects its determinations with respect to the Index Level or Sub-Index Level, as applicable, or any other relevant value that requires determination or calculation by the Index Administrator in relation to such Index Business Day, then:

- (i) first, the Index Administrator may make such adjustments and/or determinations in relation to the Index (including, but not limited to, this Index Description) and any relevant value as it may determine, in its sole and absolute discretion, appropriate to facilitate the calculation and publication of the Index Level in respect of such Index Business Day;
- (ii) secondly, if the Index Administrator determines that any such adjustment or determination referred to in sub-section (i) above cannot be made on such Index Business Day, then the Index Administrator may defer calculation and publication of the Index Level until the next Index Business Day on which the Index Administrator

determines, in its sole and absolute discretion, that no Disruption Event exists in respect of the Index provided that where any such deferral of calculation and publication continues for a period of ten consecutive Index Business Days, then the Index Administrator may:

- (a) calculate and publish the Index Level relating to each Index Business Day falling in or after such period having regard to the then prevailing market conditions, the last reported price, value, rate or level of any instrument relating to the Index and such other factor(s) and condition(s) that the Index Administrator considers relevant for the purpose of determining such Index Levels including, but not limited to, any modifications that the Index Administrator determines to be appropriate in relation to reconstitution relating to the Index; and/or
- (b) permanently cease to calculate and publish the relevant Index Level as of the later of (x) the date when such Disruption Event commenced or (y) the Index Business Day following the last Index Business Day for which the Index Administrator calculated and published the relevant Index Level in accordance with sub-section (i) above (if any) and, in each case, as applicable, such Index shall terminate.

(e) Force Majeure Event

If a Force Majeure Event occurs on an Index Business Day, the Index Administrator may, in its sole and absolute discretion:

- (i) make such determinations and/or adjustments to the terms contained in this Index Description as it considers appropriate to determine the relevant Index Level in respect of such Index Business Day; and/or
- (ii) defer publication of the relevant Index Level in respect of such Index Business Day until the next Index Business Day on which it determines that no Force Majeure Event exists; and/or
- (iii) permanently cancel publication of the relevant Index Level.

(f) Hedging Disruption Event

If the Index Administrator determines that it and/or any of its Affiliates would be unable, after using commercially reasonable efforts, to: (a) acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction(s) or asset(s) it deems necessary to hedge its position in relation to any securities issue, financial instrument or other relevant financial transaction relating to or calculated by reference to an Index; or (b) realise, recover or remit the proceeds of any such transaction(s) or asset(s) has occurred or exists on an Index Business Day, the Index Administrator may, in its sole and absolute discretion:

- (i) make such determinations and/or adjustments to the terms contained in this Index Description as it considers appropriate to determine the relevant Index Level in respect of such Index Business Day; and/or
- (ii) defer publication of the relevant Index Level in respect of such Index Business Day until the next Index Business Day on which it determines that no Hedging Disruption Event exists; and/or
- (iii) permanently cancel publication of the relevant Index Level.

(g) Overview

Any such adjustments and/or determinations or decisions to permanently cease to calculate and publish an Index Level in respect of the Index pursuant to sub-Sections 6(b), (c), (d), (e) or (f) shall be made by the Index Administrator as far as reasonably practicable in accordance with Section 10 (*Changes to and Retiring a Benchmark*) of the Overview.

7. ADJUSTMENT PROVISIONS

Change in methodology

In calculating and determining the value of the Index, the Index Administrator will, subject as provided below, employ the methodology described herein and its application of such methodology shall be conclusive and binding. While the Index Administrator currently employs the above described methodology to calculate the Index, no assurance can be given that market, regulatory, judicial, financial, fiscal or other circumstances (including, but not limited to, any changes to or any suspension or termination of any constituent of the Index or any other events affecting transactions on the same or similar terms to any described herein) will not arise that would, in the view of the Index Administrator, necessitate or make desirable a modification of or change to such methodology.

Accordingly:

- (i) The Index Administrator shall be entitled to make such modifications and/or changes as it deems appropriate, including (without limitation):
 - (a) to correct any manifest error or proven error contained in the methodology described herein; and/or
 - (b) to cure, correct or supplement any defective provision contained in the methodology described herein; and/or
 - (c) if market, regulatory, juridical, financial, fiscal or other circumstances arise, and such circumstances would, in the determination of the Index Administrator, necessitate or make desirable such a modification or change of the methodology described herein (including, but without limitation, a change in the frequency of calculation of any Index Level) in order for the Index to continue being calculated and determined notwithstanding the relevant circumstances. In deciding what is necessary the Index Administrator will consider and/or take into account what the Index Administrator determines to be the intended strategy of the Index;
- (ii) Further, and without limitation to the above provisions, the Index Administrator shall be entitled to make such modifications and/or changes as it deems appropriate:
 - (a) to preserve the intended strategy of the Index, where such modification and/or change is of a formal, minor or technical nature; and/or
 - (b) if market, regulatory, juridical, financial, fiscal or other circumstances arise, and in the determination of the Index Administrator, such modifications and/or changes would assist in maintaining the intended strategy of the Index and/or would ensure that the Index can continue to be calculated and determined by the Index Administrator in light of such circumstances.

In making such modifications however the Index Administrator will:

- (i) ensure that such modifications or changes pursuant to (i) or (ii) above will result in a methodology that is consistent in its intended commercial purpose with the methodology described in this Index Description; and
- (ii) limit any such modification or change to the terms of the Index and/or method of calculating the Index Level.

The Index Administrator may, in its discretion, at any time and without notice, terminate the calculation and publication of the Index pursuant to Section 10.2 (*Benchmark Retirement*) of the Overview.

The Overview sets out the process for making changes to its benchmarks as a general matter and the internal oversight and approval process that DBIQ will go through. It also sets out DBIQ's procedures for consulting on and notifying changes. Any such modification or change in methodology described in this Description shall be made in accordance with Section 10.1 (*Change to a Benchmark*) of the Overview.

8. CONFLICT OF INTEREST

Conflicts of interest may exist or arise between the Index Administrator and Deutsche Bank entities acting in other capacities, including as Administrator for the Index, as counterparty to a transaction or as contributor of forecasts that feed into the calculation of the index. Each relevant Deutsche Bank entity will pursue actions and take steps that it deems appropriate to protect its own interests without regard to the consequences for investors in respect of any investment or instrument linked or relating to the Index or otherwise.

Deutsche Bank entities shall be entitled to receive fees or other payments pursuant to investments or instruments linked or relating to the Index or otherwise and to exercise all rights, including rights of termination or resignations, which they may have, even though doing so may have a detrimental effect on investors in any investment or instrument linked or relating to the Index

Annex 1

Month Index Commodity	<u>Nearby Futures Contracts</u>											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
W	N	N	N	Z	Z	Z	H+	H+	H+	K+	K+	K+
C	N	N	N	Z	Z	Z	H+	H+	H+	K+	K+	K+
S	N	N	N	X	X	X	H+	H+	H+	K+	K+	K+
SM	N	N	N	Z	Z	Z	H+	H+	H+	K+	K+	K+
BO	N	N	N	Z	Z	Z	H+	H+	H+	K+	K+	K+

Annex 2

Month Index Commodity	<u>Schedule for variable "X"</u>											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
W	Q3	Q3	Q3	Q4	Q4	Q4	Q1+	Q1+	Q1+	Q2+	Q2+	Q2+
C	Q3	Q3	Q3	Q4	Q4	Q4	Q1+	Q1+	Q1+	Q2+	Q2+	Q2+
S	Q3	Q3	Q3	Q4	Q4	Q4	Q1+	Q1+	Q1+	Q2+	Q2+	Q2+
SM	Q3	Q3	Q3	Q4	Q4	Q4	Q1+	Q1+	Q1+	Q2+	Q2+	Q2+
BO	Q3	Q3	Q3	Q4	Q4	Q4	Q1+	Q1+	Q1+	Q2+	Q2+	Q2+