



**Derivatives Service Bureau**

# **Commodities : Option : Option**

## **UPI Product Definition**

Version 3

| <b>Date</b> | <b>Status</b> | <b>Version</b> | <b>Revision Details</b>   |
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# 1 INTRODUCTION

This document is designed to act as a manual for users to interpret the Product Definitions in the DSB UPI Service.

This document provides the user with the detailed description of the UPI Product Definition content such as attribute enumerations, validation, normalization, and derivation where applicable.

## 1.1 Associated Documentation

Each UPI Product Definition template links to reference documents where values will be maintained for the sake of consistency and ease of access e.g., Enumerations, Data Dictionary, Validation and Normalizations, etc.

These documents are made available for references as follows:

- UPI Enumerations Document can be found in the Enumerations section on the [DSB website](#).
- UPI Product Definition Data Dictionary can be found in the Other Documents section on the [DSB website](#).
- UPI Product Definition Validations and Normalizations Document can be found in the Other Documents section on the [DSB website](#).
- UPI Underlier Input Method can be found in the Other Documents section on the [DSB website](#).
- Best Practice Guidelines and FAQs can be found in the Other Documents section on the [DSB website](#).
- Links to the relevant JSON templates can be found in the GitHub Environment Section on the [DSB website](#).

## 2 PRODUCT TAXONOMY

### 2.1 CFI Taxonomy

Source: [ISO 10962](#) (CFI Code) – Third edition 2015-07-15

| Attr #         | Title                        | Values   | Name                                  | Description  |
|----------------|------------------------------|----------|---------------------------------------|--|
|                | <b>Instrument (Category)</b> | <b>H</b> | Non-listed and complex listed options |  |
|                | <b>Asset Class (Group)</b>   | <b>T</b> | Commodities                           |  |
| <b>Attr #1</b> | <b>Underlying Assets</b>     | <b>J</b> | Energy                                | A swap that references an energy-related product, or a derivative of an energy-related product, including electricity, renewable energy, or any power/energy delivered through a utility network of provider; diesel fuel, fuel oil, gas oil, gasoline, heating oil, jet fuel, kerosene, natural gas, oil (Brent, Tapis, Dubai, WTI) |
|                |                              | <b>K</b> | Metals                                | A swap that references a precious or industrial metal, such as aluminium, copper, gold, lead, nickel, platinum, silver, tin, zinc  |
|                |                              | <b>A</b> | Agriculture                           | Commodities which include forestry, fishing, livestock, grain, dairy, corn, cocoa, soybeans, sugar, coffee   |
|                |                              | <b>N</b> | Environmental                         | Includes carbon-related, emission reduction, weather   |
|                |                              | <b>G</b> | Freight                               | A swap in respect of which the specified commodity is a freight index route  |
|                |                              | <b>P</b> | Polypropylene products                | Polypropylene products   |
|                |                              | <b>S</b> | Fertilizer                            | Ammonia, DAP (diammonium phosphate), potash, sulfur, urea, UAN (urea and ammonium nitrate)   |
|                |                              | <b>T</b> | Paper                                 | Containerboard, newsprint, pulp, recovered paper   |
|                |                              | <b>Q</b> | Multi-commodity                       | A swap that references multiple commodity underlying types   |
|                |                              | <b>M</b> | Others                                | Others (miscellaneous)   |
| <b>Attr #2</b> | <b>Option style and type</b> | <b>A</b> | European-Call                         | An option on a contract which allows its holder (buyer) to exercise the right to buy specified assets (interest rates product) at a fixed price only on the expiration date of the call  |
|                |                              | <b>B</b> | American-Call                         | An option on a contract which allows its holder (buyer) to exercise the right to buy specified assets (interest rates product) at a fixed price at any time during the term of the call option, up to and including the expiration date of the call  |
|                |                              | <b>C</b> | Bermudan-Call                         | An option on a contract which allows its holder (buyer) to exercise the right to buy specified assets (interest rates product) at a fixed price on a number of specific dates within the exercise period of the call   |
|                |                              | <b>D</b> | European-Put                          | An option on a contract which allows its holder (buyer) to exercise the right to sell specified assets (interest rates product) at a fixed price only on the expiration date of the put  |
|                |                              | <b>E</b> | American-Put                          | An option on a contract which allows its holder (buyer) to exercise the right to sell specified assets (interest rates product) at a fixed price at any time during the term of the put option, up to and including the expiration date of the put   |

|                |                                    |          |                      |   |
|----------------|------------------------------------|----------|----------------------|---|
|                |                                    | <b>F</b> | Bermudan-Put         | An option on a contract which allows its holder (buyer) to exercise the right to sell specified assets (interest rates product) at a fixed price on a number of specific dates within the exercise period of the put  |
|                |                                    | <b>G</b> | European-Chooser     | An option on a contract which allows its holder (buyer) to exercise the right to buy (call) or sell (put) specified assets (interest rates product) at a fixed price, only on the contract's expiration date; the buyer does not have to decide whether the contract will be a put or a call until an agreed future date, prior to expiration   |
|                |                                    | <b>H</b> | American-Chooser     | An option on a contract which allows its holder (buyer) to exercise the right to buy (call) or sell (put) specified assets (interest rates product) at a fixed price at any time during the term of the contract, up to and including the expiration date of the call or put; the buyer does not have to decide whether the contract will be a put or a call until an agreed future date, prior to expiration |
|                |                                    | <b>I</b> | Bermudan-Chooser     | An option on a contract which allows its holder (buyer) to exercise the right to buy (call) or sell (put) specified assets (interest rates product) at a fixed price on a number of specific dates within the exercise period of the contract; the buyer does not have to decide whether the contract will be a put or a call until an agreed future date, prior to expiration                                |
| <b>Attr #3</b> | <b>Valuation Method or Trigger</b> | <b>V</b> | Vanilla              | An option for which all terms are standardized  |
|                |                                    | <b>A</b> | Asian                | An option where either the strike price or the settlement price is the average level of an underlying instrument over a redetermined period; the averaging can be either a geometric or arithmetic average  |
|                |                                    | <b>D</b> | Digital (Binary)     | An option that has a pre-determined pay-out if the option is in-the-money and the payoff condition is satisfied; also referred to as a "binary option" or an "all-or-nothing option"  |
|                |                                    | <b>B</b> | Barrier              | An option whose final exercise depends upon the path taken by the price of an underlying instrument; for a "knock-out" barrier option, the option is cancelled if the underlying price crosses a predetermined barrier level; for a "knock-in" barrier option, the option becomes available-for-exercise if the underlying price crosses a predetermined barrier level  |
|                |                                    | <b>G</b> | Digital Barrier      | A digital option embedded with a barrier option; there are different variations of this type of option; as an example, a down-and-out digital call option will pay a fixed payoff, or the underlying, at any time before maturity that the underlying price is equal to or greater than the barrier level; it will pay zero if the underlying price is less than the barrier level                            |
|                |                                    | <b>L</b> | Lookback             | An option that minimizes the uncertainties related to the timing of market entry; there are two types of lookback options: fixed and floating; the fixed option strike is determined at purchase, and the floating option strike is determined at maturity  |
|                |                                    | <b>P</b> | Other Path Dependent | An option on a contract whose payoff is directly related to the price pattern the underlying asset follows during the life of the contract  |
|                |                                    | <b>M</b> | Others               | Others (miscellaneous)  |
| <b>Attr #4</b> | <b>Delivery Type</b>               | <b>C</b> | Cash                 | The discharge of an obligation by payment or receipt of a net cash amount instead of payment or delivery by both parties  |
|                |                                    | <b>P</b> | Physical             | The meeting of a settlement obligation under a derivative contract through the receipt or delivery of the actual underlying instrument(s) instead of through cash settlement  |
|                |                                    | <b>E</b> | Elect at Exercise    | The method of delivery of the underlying instrument when the option is exercised shall be determined at the time of exercise  |

## 2.2 ISDA Taxonomy

The table below is based on the products identified as part of the [ISDA Commodities Taxonomy v2.0](#).

| Node 1<br>Asset Class | Node 2<br>Transaction Type | Node 3<br>Settlement Type* | Node 4 and/or Node 7<br>Commodity  | Node 5 and/or Node 8<br>Sub-Commodity |
|-----------------------|----------------------------|----------------------------|------------------------------------|---------------------------------------|
| Commodity             | Option                     | Cash                       | Agricultural Products              | Aluminum                              |
|                       |                            | Physical                   | Composite Commodity Indices        | Azuki Beans                           |
|                       |                            |                            | Energy                             | Baltic Exchange – Dry Bulk Routes     |
|                       |                            |                            | Freight                            | Baltic Exchange – Wet Bulk Routes     |
|                       |                            |                            | Metals                             | Barley                                |
|                       |                            |                            | Paper                              | Benzene                               |
|                       |                            |                            | Plastic                            | Butter                                |
|                       |                            |                            | <i>Composite Commodity Indices</i> | Canola                                |
|                       |                            |                            | <i>Other</i>                       | Coal                                  |
|                       |                            |                            |                                    | Cobalt                                |
|                       |                            |                            |                                    | Cocoa                                 |
|                       |                            |                            |                                    | Coffee                                |
|                       |                            |                            |                                    | Containerboard                        |
|                       |                            |                            |                                    | Copper                                |
|                       |                            |                            |                                    | Corn                                  |
|                       |                            |                            |                                    | Cotton                                |
|                       |                            |                            |                                    | Diesel Fuel                           |
|                       |                            |                            |                                    | Electricity                           |
|                       |                            |                            |                                    | Emissions                             |
|                       |                            |                            |                                    | Ethanol and Biofuels                  |
|                       |                            |                            |                                    | Fertiliser                            |
|                       |                            |                            |                                    | Fluff                                 |
|                       |                            |                            |                                    | Fuel Oil                              |
|                       |                            |                            |                                    | Gas Oil                               |
|                       |                            |                            |                                    | Gasoline                              |
|                       |                            |                            |                                    | Gold                                  |
|                       |                            |                            |                                    | Heating Oil                           |
|                       |                            |                            |                                    | Iridium                               |
|                       |                            |                            |                                    | Iron Ore                              |
|                       |                            |                            |                                    | Jet Fuel/Kerosene                     |
|                       |                            |                            |                                    | Lead                                  |
|                       |                            |                            |                                    | Livestock                             |
|                       |                            |                            |                                    | Lumber                                |

|  |  |  |  |                         |
|--|--|--|--|-------------------------|
|  |  |  |  | Methanol                |
|  |  |  |  | Milk                    |
|  |  |  |  | Molybdenum              |
|  |  |  |  | Naphtha                 |
|  |  |  |  | NaturalGas              |
|  |  |  |  | NaturalGasLiquids       |
|  |  |  |  | Newsprint               |
|  |  |  |  | Nickel                  |
|  |  |  |  | Oats                    |
|  |  |  |  | Oil                     |
|  |  |  |  | Orange Juice            |
|  |  |  |  | Other                   |
|  |  |  |  | Palladium               |
|  |  |  |  | Palm Oil                |
|  |  |  |  | Platinum                |
|  |  |  |  | Platts Clean Tankerwire |
|  |  |  |  | Platts Dirty Tankerwire |
|  |  |  |  | Pulp                    |
|  |  |  |  | Rapeseed                |
|  |  |  |  | Recovered Paper         |
|  |  |  |  | Rhodium                 |
|  |  |  |  | Rice                    |
|  |  |  |  | Rubber                  |
|  |  |  |  | Ruthenium               |
|  |  |  |  | Silver                  |
|  |  |  |  | Sorghum                 |
|  |  |  |  | Soybeans                |
|  |  |  |  | Steel                   |
|  |  |  |  | Sugar                   |
|  |  |  |  | Sunflower Seeds         |
|  |  |  |  | Tin                     |
|  |  |  |  | Uranium                 |
|  |  |  |  | Wheat                   |
|  |  |  |  | Wool                    |
|  |  |  |  | Zinc                    |
|  |  |  |  | Plastics                |

*\*There is no exact match in the ISDA Taxonomy 2.0 for this product template. The current taxonomy 2.0 only provides for Settlement values [Cash, Physical]. This product template is a catch all for products that fall outside of these specified transaction types.*

### 3 REQUEST TEMPLATE

This section describes the input message received by UPI service.

| Template name                              | Template details | Release |
|--|------------------|---------|
| Request.Commodities.Option.Option.UPI.json | Initial version  | Initial |

| Section                  | Attribute                   | Format | Cat  | Example Value      | Validation                               |
|--------------------------|-----------------------------|--------|------|--------------------|--|
| <b>Header Section</b>    | Asset Class                 | Set    | M    | Commodities        |  |
|                          | Instrument Type             | Set    | M    | Option             |  |
|                          | Product                     | Set    | M    | Option             |  |
|                          | Level                       | Set    | M    | UPI                |  |
| <b>Attribute Section</b> | Underlier ID                | Enum   | M    | SILVER-FIX         | Enumerated List                          |
|                          | Underlier ID Source         | String | M    | COMM               | [COMM]                                   |
|                          | Base Product                | Enum   | M    | METL               | [AGRI, NRGY, ENVR, FRGT, FRTL, etc.]     |
|                          | Sub Product                 | Enum   | C    | PRME               | [PRME, NPRM]                             |
|                          | Additional Sub Product      | Enum   | C    | SLVR               | [GOLD, OTHR, PLDM, PTNM, etc.]           |
|                          | Option Type                 | Enum   | M    | PUTO               | [CALL, PUTO, OPTL]                       |
|                          | Option Exercise Style       | Enum   | M    | EURO               | [AMER, BERM, EURO]                       |
|                          | Valuation Method or Trigger | Enum   | M    | Vanilla            | [Vanilla, Asian, Digital (Binary), etc.] |
| Delivery Type            | Enum                        | M      | PHYS | [CASH, PHYS, OPTL] |  |

#### 3.1 Underlier Input Method

This product supports the entry of a single Commodity Ref Price as an underlier.

| Title                             | Description  |
|-----------------------------------|--|
| <b>Select Underlier ID Source</b> | User is able to select a single required Underlier ID Source from the available options based on the selected Underlier Type. <ul style="list-style-type: none"> <li>Commodity Ref Price [COMM]</li> </ul> |
| <b>Input Underlier ID</b>         | User enters a valid Underlier ID based on the selected Underlier ID Source.  |

#### 3.2 Validation Rules

For non-specific product validation rules, please refer to UPI Product Definition Validations and Normalizations Document can be found in the Other Documents section on the [DSB website](#).

## 4 RECORD TEMPLATE

This section describes the record returned by the UPI service.

| Version | Template name                         | Template details | Release |
|---------|---------------------------------------|------------------|---------|
| V.1     | Commodities.Option.Option.UPI.V1.json | Initial version  | Initial |

| Section                   | Attribute                   | Format  | Cat                                 | Example Value        | Derivation                               |
|---------------------------|-----------------------------|---------|-------------------------------------|----------------------|--|
| <b>Header Section</b>     | Asset Class                 | Set     | M                                   | Commodities          |  |
|                           | Instrument Type             | Set     | M                                   | Option               |  |
|                           | Product                     | Set     | M                                   | Option               |  |
|                           | Level                       | Set     | M                                   | UPI                  |  |
|                           | Template Version            | Integer | D                                   | 1                    |  |
| <b>Attribute Section</b>  | Reference Rate              | Enum    | M                                   | SILVER-FIX           | Enumerated List                          |
|                           | Base Product                | Enum    | M                                   | METL                 | [AGRI, NRGY, ENVR, FRGT, FRTL, etc.]     |
|                           | Sub Product                 | Enum    | C                                   | PRME                 | [PRME, NPRM]                             |
|                           | Additional Sub Product      | Enum    | C                                   | SLVR                 | [GOLD, OTHR, PLDM, PTNM, etc.]           |
|                           | Option Type                 | Enum    | M                                   | PUTO                 | [CALL, PUTO, OPTL]                       |
|                           | Option Exercise Style       | Enum    | M                                   | EURO                 | [AMER, BERM, EURO]                       |
|                           | Valuation Method or Trigger | Enum    | M                                   | Vanilla              | [Vanilla, Asian, Digital (Binary), etc.] |
| <b>Identifier Section</b> | Delivery Type               | Enum    | M                                   | PHYS                 | [CASH, PHYS, OPTL]                       |
|                           | UPI                         | String  | D                                   | QZMK5K7DT998         |  |
|                           | Status                      | String  | D                                   | New                  | [New; Updated; Deleted; Deprecated]      |
|                           | Status Reason               | String  | D                                   | <null>               |  |
| <b>Derived Section</b>    | Last Update Date Time       | DtTm    | D                                   | 2021-05-17T03:34:52  | YYYY-MM-DDThh:mm:ss                      |
|                           | Classification Type         | String  | D                                   | HTKDVP               | See Derivation Rules                     |
|                           | Short Name                  | String  | D                                   | NA/O METL SLVR Put   | See Derivation Rules                     |
|                           | Underlier Name              | String  | D                                   | SILVER-FIX           | See Derivation Rules                     |
|                           | Underlying Asset type       | String  | D                                   | Metals               | See Derivation Rules                     |
|                           | CFI Option Style and Type   | String  | D                                   | European-Put         | See Derivation Rules                     |
| CFI Delivery Type         | String                      | D       | [Cash, Physical, Elect at Exercise] | See Derivation Rules |  |

## 4.1 Normalization Rules

For non-specific product normalization rules, please refer to UPI Product Definition Validations and Normalizations Document can be found in the Other Documents section on the [DSB website](#).

## 4.2 Derivation Rules

This section describes the derivations of product attributes highlighted in the Record Template.

### 4.2.1 Underlying Asset Type

At present, the Underlying Asset Type is taken from ISO 20022 values of the Base Product and are being derived as the CFI values where it is used in the generation of the CFI code.

| Attribute Underlying Asset Type |              |                   |                        |
|---------------------------------|--------------|-------------------|------------------------|
| Source Attribute                | Source Value | Derivation Method | Result                 |
| Underlying Asset Type           | AGRI         | Mapped to =>      | Agriculture            |
|                                 | NRGY         | Mapped to =>      | Energy                 |
|                                 | ENVR         | Mapped to =>      | Environmental          |
|                                 | FRGT         | Mapped to =>      | Freight                |
|                                 | FRTL         | Mapped to =>      | Fertilizer             |
|                                 | INDP         | Mapped to =>      | Other                  |
|                                 | INFL         | Mapped to =>      | Other                  |
|                                 | OEST         | Mapped to =>      | Other                  |
|                                 | METL         | Mapped to =>      | Metals                 |
|                                 | MCEX         | Mapped to =>      | Multi Commodity        |
|                                 | PAPR         | Mapped to =>      | Paper                  |
|                                 | POLY         | Mapped to =>      | Polypropylene Products |
|                                 | OTHC         | Mapped to =>      | Other                  |
|                                 | OTHR         | Mapped to =>      | Other                  |

## 4.2.2 Classification Type

| Attribute                          |   | Classification Type |        |
|------------------------------------|---|---------------------|--------|
| <b>Structure</b>                   | Instrument Type + Asset Class + Underlying Asset Type + Option Type/Style + Valuation Method or Trigger + Delivery Type |                     |        |
| <b>Example</b>                     | HTKDVP  |                     |        |
| <b>Source</b>                      | <a href="#">ISO 10962</a> (CFI) – Third edition 2015-07-15  |                     |        |
| Source Attribute                   | Source Value  | Derivation Method   | Result |
| <b>Instrument Type</b>             | Option  | Fixed Mapping       | H      |
| <b>Asset Class</b>                 | Commodities   | Fixed Mapping       | T      |
| <b>Underlying Asset Type</b>       | Agriculture   | Mapped to =>        | A      |
|                                    | Energy  | Mapped to =>        | J      |
|                                    | Environmental   | Mapped to =>        | N      |
|                                    | Freight   | Mapped to =>        | G      |
|                                    | Fertilizer  | Mapped to =>        | S      |
|                                    | Metals  | Mapped to =>        | K      |
|                                    | Multi Commodity   | Mapped to =>        | Q      |
|                                    | Paper   | Mapped to =>        | T      |
|                                    | Polypropylene products  | Mapped to =>        | P      |
|                                    | Other   | Mapped to =>        | M      |
| <b>Option Type/Style</b>           | PUTO/AMER   | Mapped to =>        | E      |
|                                    | PUTO/BERM   | Mapped to =>        | F      |
|                                    | PUTO/EURO   | Mapped to =>        | D      |
|                                    | CALL/AMER   | Mapped to =>        | B      |
|                                    | CALL/BERM   | Mapped to =>        | C      |
|                                    | CALL/EURO   | Mapped to =>        | A      |
|                                    | OPTL/AMER   | Mapped to =>        | H      |
|                                    | OPTL/BERM   | Mapped to =>        | I      |
|                                    | OPTL/EURO   | Mapped to =>        | G      |
| <b>Valuation Method or Trigger</b> | Vanilla   | Mapped to =>        | V      |
|                                    | Asian   | Mapped to =>        | A      |
|                                    | Digital (Binary)  | Mapped to =>        | D      |
|                                    | Barrier   | Mapped to =>        | B      |
|                                    | Digital Barrier   | Mapped to =>        | G      |
|                                    | Lookback  | Mapped to =>        | L      |
|                                    | Other Path Dependent  | Mapped to =>        | P      |
|                                    | Other   | Mapped to =>        | M      |
| <b>Delivery Type</b>               | CASH  | Mapped to =>        | C      |
|                                    | PHYS  | Mapped to =>        | P      |
|                                    | OPTL  | Mapped to =>        | E      |

## 4.2.3 Short Name

| Attribute                     | Short Name  |                    |        |
|-------------------------------|---|--------------------|--------|
| <b>Structure</b>              | "NA" + "/" + Instrument Type + Base Product + Additional Sub Product + Option Type  |                    |        |
| <b>Example</b>                | NA/O METL SLVR Put  |                    |        |
| <b>Source</b>                 | <a href="#">ISO 18774</a> (Financial Instrument Short Name) - First edition 2015-11 |                    |        |
| Source Attribute              | Source Value  | Derivation Method  | Result |
| <b>Issuer Name</b>            | None  | Fixed Value        | NA/    |
| <b>Instrument Type</b>        | Option  | Fixed Abbreviation | O      |
| <b>Base Product</b>           | AGRI  | Mapped to =>       | AGRI   |
|                               | NRGY  | Mapped to =>       | NRGY   |
|                               | ENVR  | Mapped to =>       | ENVR   |
|                               | FRGT  | Mapped to =>       | FRGT   |
|                               | FRTL  | Mapped to =>       | FRTL   |
|                               | INDP  | Mapped to =>       | INDP   |
|                               | INFL  | Mapped to =>       | INFL   |
|                               | OEST  | Mapped to =>       | OEST   |
|                               | METL  | Mapped to =>       | METL   |
|                               | MCEX  | Mapped to =>       | MCEX   |
|                               | PAPR  | Mapped to =>       | PAPR   |
|                               | POLY  | Mapped to =>       | POLY   |
|                               | OTHC  | Mapped to =>       | OTHC   |
| OTHR                          | Mapped to =>  | OTHR               |        |
| <b>Additional Sub Product</b> | FWHT  | Mapped to =>       | FWHT   |
|                               | SOYB  | Mapped to =>       | SOYB   |
|                               | RPSD  | Mapped to =>       | RPSD   |
|                               | CORN  | Mapped to =>       | CORN   |
|                               | RICE  | Mapped to =>       | RICE   |
|                               | ROBU  | Mapped to =>       | ROBU   |
|                               | CCOA  | Mapped to =>       | CCOA   |
|                               | BRWN  | Mapped to =>       | BRWN   |
|                               | WHSG  | Mapped to =>       | WHSG   |
|                               | LAMP  | Mapped to =>       | LAMP   |
|                               | MWHT  | Mapped to =>       | MWHT   |
|                               | BSLD  | Mapped to =>       | BSLD   |
|                               | FITR  | Mapped to =>       | FITR   |
| OFFP                          | Mapped to =>  | OFFP               |        |

|  |      |              |      |
|--|------|--------------|------|
|  | GASP | Mapped to => | GASP |
|  | LNGG | Mapped to => | LNGG |
|  | NCGG | Mapped to => | NCGG |
|  | TTFG | Mapped to => | TTFG |
|  | NBPG | Mapped to => | NBPG |
|  | BAKK | Mapped to => | BAKK |
|  | BDSL | Mapped to => | BDSL |
|  | BRNT | Mapped to => | BRNT |
|  | BRNX | Mapped to => | BRNX |
|  | CNDA | Mapped to => | CNDA |
|  | COND | Mapped to => | COND |
|  | DSEL | Mapped to => | DSEL |
|  | DUBA | Mapped to => | DUBA |
|  | ESPO | Mapped to => | ESPO |
|  | ETHA | Mapped to => | ETHA |
|  | FUEL | Mapped to => | FUEL |
|  | FOIL | Mapped to => | FOIL |
|  | GOIL | Mapped to => | GOIL |
|  | GSLN | Mapped to => | GSLN |
|  | HEAT | Mapped to => | HEAT |
|  | JTFL | Mapped to => | JTFL |
|  | KERO | Mapped to => | KERO |
|  | LLSO | Mapped to => | LLSO |
|  | MARS | Mapped to => | MARS |
|  | NAPH | Mapped to => | NAPH |
|  | NGLO | Mapped to => | NGLO |
|  | TAPI | Mapped to => | TAPI |
|  | WTIO | Mapped to => | WTIO |
|  | URAL | Mapped to => | URAL |
|  | CERE | Mapped to => | CERE |
|  | ERUE | Mapped to => | ERUE |
|  | EUAE | Mapped to => | EUAE |
|  | EUAA | Mapped to => | EUAA |
|  | DBCR | Mapped to => | DBCR |
|  | TNKR | Mapped to => | TNKR |
|  | ALUM | Mapped to => | ALUM |
|  | ALUA | Mapped to => | ALUA |
|  | CBLT | Mapped to => | CBLT |
|  | COPR | Mapped to => | COPR |
|  | IRON | Mapped to => | IRON |
|  | MOLY | Mapped to => | MOLY |

|                    |      |              |      |
|--------------------|------|--------------|------|
|                    | NASC | Mapped to => | NASC |
|                    | NICK | Mapped to => | NICK |
|                    | STEL | Mapped to => | STEL |
|                    | TINN | Mapped to => | TINN |
|                    | ZINC | Mapped to => | ZINC |
|                    | LEAD | Mapped to => | LEAD |
|                    | GOLD | Mapped to => | GOLD |
|                    | PLDM | Mapped to => | PLDM |
|                    | PTNM | Mapped to => | PTNM |
|                    | SLVR | Mapped to => | SLVR |
|                    | OTHR | Mapped to => | OTHR |
| <b>Option Type</b> | PUTO | Mapped to => | Put  |
|                    | CALL | Mapped to => | Call |
|                    | OPTL | Mapped to => | OPTL |

#### 4.2.4 Underlier Name

| Attribute        |                       | Underlier Name                  |                |
|------------------|-----------------------|---------------------------------|----------------|
| Underlying Asset | Underlier Name Source | Underlier Name Source Attribute | Underlier Name |
| Reference Rate   | UPI Record            | Reference Rate                  | SILVER-FIX     |

#### 4.2.5 CFI Option Style and Type

| Attribute                    |              | CFI Option Style and Type |                  |
|------------------------------|--------------|---------------------------|------------------|
| Source Attribute             | Source Value | Derivation Method         | Result           |
| <b>Option Style and Type</b> | PUTO/AMER    | Mapped to =>              | American-Put     |
|                              | PUTO/BERM    | Mapped to =>              | Bermudan-Put     |
|                              | PUTO/EURO    | Mapped to =>              | European-Put     |
|                              | CALL/AMER    | Mapped to =>              | American-Call    |
|                              | CALL/BERM    | Mapped to =>              | Bermudan-Call    |
|                              | CALL/EURO    | Mapped to =>              | European-Call    |
|                              | OPTL/AMER    | Mapped to =>              | American-Chooser |
|                              | OPTL/BERM    | Mapped to =>              | Bermudan-Chooser |
|                              | OPTL/EURO    | Mapped to =>              | European-Chooser |

## 4.2.6 CFI Delivery Type

| Attribute        |              | CFI Delivery Type |                   |
|------------------|--------------|-------------------|-------------------|
| Source Attribute | Source Value | Derivation Method | Result            |
| Delivery Type    | CASH         | Mapped to =>      | Cash              |
|                  | PHYS         | Mapped to =>      | Physical          |
|                  | OPTL         | Mapped to =>      | Elect at Exercise |

## 5 SUPPLEMENTARY INFORMATION

### 5.1 Best Practice Guidelines

Please refer to Best Practice Guidelines and FAQs that can be found in the Other Documents section on the [DSB website](#).

### 5.2 Additional Comments

The short name abbreviation for Option Type [CALL, PUTO, OPTL] within Commodity Asset Class are [Call, Put, OPTL] whereas Rates use [Call, P, Opt], Equities use [Call, Put, Opt] and Foreign\_Exchange use [Call, Put, O]. For Credit Asset Class, Option Type is not part of the short name.

## 6 APPENDIX 1 – ISO 4914 EQUIVALENCE

This section describes the attributes as per the ISO 4914 Unique Product Identifier (UPI).

| ISO 4914 Reference Data Elements         |   | Request Attribute           | Record Attribute            |
|--|---|-----------------------------|-----------------------------|
| Asset Class                              | M | Asset Class                 | Asset Class                 |
| Instrument Type                          | M | Instrument Type             | Instrument Type             |
| Delivery Type                            | M | Delivery Type               | Delivery Type               |
|  |   |                             | CFI Delivery Type           |
| Option style                             | M | Option Exercise Style       | Option Exercise Style       |
| Option type                              | M | Option Type                 | Option Type                 |
| Return, pricing method or payout trigger | M | Valuation Method or Trigger | Valuation Method or Trigger |
| Underlier ID                             | C | Underlier ID                | Reference Rate              |
| Underlier ID source                      | C | Underlier ID Source         | Not Required                |
| Underlier type                           | M | Base Product                | Base Product                |
| Underlier sub-type (first level)         | M | Sub Product                 | Sub Product                 |
| Underlier sub-type (second level)        | C | Additional Sub Product      | Additional Sub Product      |

## 7 APPENDIX 2 - OTC ISIN-UPI MAPPING

This section describes the mapping between the ISIN and UPI input attributes.

| ISIN Input Attributes       | Mapping Logic | UPI Input Attributes        | Sample UPI Value | Comments |
|-----------------------------|---------------|-----------------------------|------------------|----------|
| Asset Class                 | Direct Map    | Asset Class                 | Commodities      |          |
| Instrument Type             | Direct Map    | Instrument Type             | Option           |          |
| Use Case                    | Direct Map    | Product                     | Option           |          |
| Level                       | Set to "UPI"  | Level                       | UPI              |          |
| Notional Currency           | No Mapping    |                             |                  |          |
| Expiry Date                 | No Mapping    |                             |                  |          |
| Option Type                 | Direct Map    | Option Type                 | PUTO             |          |
| Option Exercise Style       | Direct Map    | Option Exercise Style       | EURO             |          |
| Valuation Method or Trigger | Direct Map    | Valuation Method or Trigger | Vanilla          |          |
| Delivery Type               | Direct Map    | Delivery Type               | PHYS             |          |
| Base Product                | Direct Map    | Base Product                | METL             |          |
| Sub Product                 | Direct Map    | Sub Product                 | PRME             |          |
| Additional Sub Product      | Direct Map    | Additional Sub Product      | SLVR             |          |
| Transaction Type            | No Mapping    |                             |                  |          |
| Final Price Type            | No Mapping    |                             |                  |          |
| Reference Rate              | Map to        | Underlier ID                | SILVER-FIX       |          |
|                             | Set to "COMM" | Underlier ID Source         | COMM             |          |
| Price Multiplier            | No Mapping    |                             |                  |          |