Derivatives Service Bureau

Credit : Option : Non_Standard

UPI Product Definition

Version 3

Date	Status	Version	Revision Details
01 Sep 2022	Draft	1	Initial Version
06 Feb 2023	Draft	2	• Update example values in the Request and Record templates layout • Insert Underlier Name attribute and Derivation rules
30 Aug 2023	Draft	3	• Remove "Classified as Confidential" in the Footer section. • Remove "RIC" as Alternate Underlier ID Source. • Update Associated Documentation to include Best Practice Guidelines and FAQs. • Update Best Practice Guidelines to include the link to Best Practice Guidelines and FAQs.

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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
	Instrument (Category)	**H**	Non-listed and complex listed options	
	Asset Class (Group)	**C**	Credit	
Attr #1	**Underlying Assets**	**U**	CDS on a single name	A CDS where the underlying risk is a single reference entity or single reference obligation
		V	CDS on an index tranche	A synthetic CDO based on a CDS index where each tranche references a different segment of the loss distribution of the underlying CDS index; each tranche has a different priority of claims on the principal and interest flows from the collateral pool, and are traditionally portioned into rising levels of seniority
		I	CDS on an index	Family of standardized credit derivative indices, where the underlying reference entities are a defined basket of credit from a particular geographic region (for instance, Asia, North America, Europe, etc.), and/or credit rating level (for instance Emerging Markets, high yield, investment grade, etc.); credit default indices trade in standard maturities, and the reference entities are typically the most liquid; the reference portfolio is reassessed periodically to maintain this
		W	Swaps	Swaps
		M	Others	Others (miscellaneous)
Attr #2	**Option style and type**	**A**	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	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
		C	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
		D	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
		E	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
		F	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

		G	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
		H	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
		I	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
Attr #3	**Valuation method or trigger**	**V**	Vanilla	An option for which all terms are standardized
		A	Asian	An option where either the strike price or the settle-ment price is the average level of an underlying instrument over a predetermined period; the averaging can be either a geometric or arithmetic average
		D	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	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
		G	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 bar-rier level; it will pay zero if the underlying price is less than the barrier level
		L	Lookback	An option that minimizes the uncertainties related to the timing of market entry; there are two types of look-back options: fixed and floating; the fixed option strike is determined at purchase, and the floating option strike is determined at maturity
		P	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
		M	Others	Others (miscellaneous)
Attr #4	**Delivery Type**	**C**	Cash	The discharge of an obligation by payment or receipt of a net cash amount instead of payment or delivery by both parties
		P	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
		E	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 2.0 taxonomy.

Asset Class	Base Product	Sub-Product	Transaction Type	DSB Product Definition Name
Credit	Exotic	Various entries	Various entries	Non_Standard_Option

3 REQUEST TEMPLATE

This section describes the input message received by UPI service.

Template name	Template details	Release
Request.Credit.Option.Non_Standard.UPI.json	Initial version	Initial

Section	Attribute	Format	Cat	Example Value	Validation
Header Section	Asset Class	Set	M	Credit	
	Instrument Type	Set	M	Option	
	Product	Set	M	Non_Standard	
	Level	Set	M	UPI	
Attribute Section	**Underlying Structure (oneOf)**	Object	M	Single Underlier	See Validation Rules
	Underlying Asset Type (oneOf)	Object	M	CDS on Single Name	See Validation Rules
	Underlier Type (oneOf)	Object	M	Fixed Income Security	
	Underlier ID Source	Enum	(M)	ISIN	[ISIN, FIGI, CUSIP, SEDOL]
	Underlier ID	String	(M)	US92857WBQ24	See Validation Rules
	Debt Seniority	Enum	(M)	SNDB	[SNDB, MZZD, SBOD, JUND]
	Underlier Type (oneOf)	Object	M	Legal Entity	
	Underlier ID Source	Enum	(M)	LEI	[LEI]
	Underlier ID	String	(M)	INR2EJN1ERAN0W5ZP974	See Validation Rules
	Debt Seniority	Enum	(M)	SNDB	[SNDB, MZZD, SBOD, JUND]
	Underlier Type (oneOf)	Object	M	UPI	
	Underlier ID Source	Enum	(M)	UPI	[UPI]
	Underlier ID	String	(M)	QZLPDFD5N6T3	See Validation Rules
	Underlying Asset Type (oneOf)	Object	M	CDS on Index	See Validation Rules
	Underlier Type (oneOf)	Object	M	Proprietary Index	
	Underlier ID Source	Enum	(M)	PROP	[PROP]
	Underlier ID	String	(M)	11339-MLSREISU	DSB Proprietary Index Enumerations
	Underlying Instrument Index Term Value	Integer	(M)	21	See Validation Rules
	Underlying Instrument Index Term Unit	Enum	(M)	DAYS	[DAYS, WEEK, MNTH, YEAR]
	Underlying Credit Index Series	Integer	(M)	2	See Validation Rules
	Underlying Credit Index Version	Integer	(M)	4	See Validation Rules
	Underlier Type (oneOf)	Object	M	Credit Index	
	Underlier ID Source	Enum	(M)	CRIDX	[CRIDX]
	Underlier ID	Enum	(M)	ITRAXX EUROPE	Enumerated List
	Underlying Instrument Index Term Value	Integer	(M)	21	See Validation Rules
	Underlying Instrument Index Term Unit	Enum	(M)	DAYS	[DAYS, WEEK, MNTH, YEAR]
	Underlying Credit Index Series	Integer	(M)	2	See Validation Rules
	Underlying Credit Index Version	Integer	(M)	4	See Validation Rules
	Underlier Type (oneOf)	Object	M	UPI	
	Underlier ID Source	Enum	(M)	UPI	[UPI]
	Underlier ID	String	(M)	QZLPDFD5N6T3	See Validation Rules
	Underlying Asset Type (oneOf)	Object	M	CDS on Index Tranche	See Validation Rules
	Underlier Type (oneOf)	Object	M	Proprietary Index	
	Underlier ID Source	Enum	(M)	PROP	[PROP]
	Underlier ID	String	(M)	11339-MLSREISU	See Validation Rules
	Underlying Instrument Index Term Value	Integer	(M)	21	See Validation Rules
	Underlying Instrument Index Term Unit	Enum	(M)	DAYS	[DAYS, WEEK, MNTH, YEAR]
	Underlying Credit Index Series	Integer	(M)	2	See Validation Rules
	Underlying Credit Index Version	Integer	(M)	4	See Validation Rules
	Underlier Type (oneOf)	Object	M	Credit Index	

Section	Attribute	Format	Cat	Example Value	Validation
	Underlier ID Source	Enum	(M)	CRIDX	[CRIDX]
	Underlier ID	Enum	(M)	ITRAXX EUROPE	Enumerated List
	Underlying Instrument Index Term Value	Integer	(M)	21	See Validation Rules
	Underlying Instrument Index Term Unit	Enum	(M)	DAYS	[DAYS, WEEK, MNTH, YEAR]
	Underlying Credit Index Series	Integer	(M)	2	See Validation Rules
	Underlying Credit Index Version	Integer	(M)	4	See Validation Rules
	Underlier Type (oneOf)	Object	M	UPI	
	Underlier ID Source	Enum	(M)	UPI	[UPI]
	Underlier ID	String	(M)	QZLPDFD5N6T3	See Validation Rules
	Underlying Asset Type (oneOf)	Object	M	Swaps	See Validation Rules
	Underlier Type (oneOf)	Object	M	Fixed Income Security	
	Underlier ID Source	Enum	(M)	ISIN	[ISIN, FIGI, CUSIP, SEDOL]
	Underlier ID	String	(M)	US92857WBQ24	See Validation Rules
	Debt Seniority	Enum	(M)	SNDB	[SNDB, MZZD, SBOD, JUND]
	Underlier Type (oneOf)	Object	M	UPI	
	Underlier ID Source	Enum	(M)	UPI	[UPI]
	Underlier ID	String	(M)	QZLPDFD5N6T3	See Validation Rules
	Underlying Asset Type (oneOf)	Object	M	Other	See Validation Rules
	Underlier Type (oneOf)	Object	M	Fixed Income Security	
	Underlier ID Source	Enum	(M)	ISIN	[ISIN, FIGI, CUSIP, SEDOL]
	Underlier ID	String	(M)	US92857WBQ24	See Validation Rules
	Debt Seniority	Enum	(M)	SNDB	[SNDB, MZZD, SBOD, JUND]
	Underlier Type (oneOf)	Object	M	Legal Entity	
	Underlier ID Source	Enum	(M)	LEI	[LEI]
	Underlier ID	String	(M)	INR2EJN1ERAN0W5ZP974	See Validation Rules
	Debt Seniority	Enum	(M)	SNDB	[SNDB, MZZD, SBOD, JUND]
	Underlier Type (oneOf)	Object	M	Credit Index	
	Underlier ID Source	Enum	(M)	CRIDX	[CRIDX]
	Underlier ID	Enum	(M)	ITRAXX EUROPE	Enumerated List
	Underlying Instrument Index Term Value	Integer	(M)	21	See Validation Rules
	Underlying Instrument Index Term Unit	Enum	(M)	DAYS	[DAYS, WEEK, MNTH, YEAR]
	Underlying Credit Index Series	Integer	(M)	2	See Validation Rules
	Underlying Credit Index Version	Integer	(M)	4	See Validation Rules
	Underlier Type (oneOf)	Object	M	Proprietary Index	
	Underlier ID Source	Enum	(M)	PROP	[PROP]
	Underlier ID	String	(M)	11339-MLSREISU	DSB Proprietary Index Enumerations
	Underlying Instrument Index Term Value	Integer	(M)	21	See Validation Rules
	Underlying Instrument Index Term Unit	Enum	(M)	DAYS	[DAYS, WEEK, MNTH, YEAR]
	Underlying Credit Index Series	Integer	(M)	2	See Validation Rules
	Underlying Credit Index Version	Integer	(M)	4	See Validation Rules
	Underlier Type (oneOf)	Object	M	UPI	
	Underlier ID Source	Enum	(M)	UPI	[UPI]
	Underlier ID	String	(M)	QZLPDFD5N6T3	See Validation Rules
	Underlying Structure (oneOf)	Object	M	Basket	See Validation Rules
	Underlying Asset Type	Object	(M)	[Swaps, Other]	See Validation Rules
	Option Exercise Style	Enum	M	BERM	[AMER, BERM, EURO]
	Option Type	Enum	M	OPTL	[CALL, PUTO, OPTL]
	Valuation Method or Trigger	Enum	M	Asian	[Vanilla, Asian, Digital (Binary), Barrier, etc.]
	Delivery Type	Enum	M	PHYS	[CASH, PHYS, OPTL]

3.1 Underlier Input Method

For products that has an option for a Single or Multiple Underliers, users must select an underlying structure applicable [Single Underlier, Basket]. If a Basket is selected, underlier entry is not required.

Title	Description
Select Underlying Structure	User is able to select whether the underlying is a single underlier or basket based on its product. • Single Underlier • Basket
Select Underlier Type	User is able to select a single required Underlier Type from the available options. • Fixed Income Security • Legal Entity • Credit Index • Proprietary Index • UPI
Select Underlier ID Source	User is able to select a single required Underlier ID Source from the available options based on the selected Underlier Type. • Fixed Income Security [ISIN, FIGI, CUSIP, SEDOL] • Legal Entity [LEI] • Credit Index [CRIDX] • Proprietary Index [PROP] • UPI [UPI]
Input Underlier ID	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.

3.2.1 Underlying Structure [oneOf structure]

- If Underlying Structure selected is a “Single Underlier”, Underlying Asset Type attribute will be present in the REQUEST and RECORD messages with enumerated values [CDS on Single Name, CDS on Index, CDS on Index Tranche, Swaps, Other].
- If Underlying Structure selected is a "Single Underlier", attributes Underlier ID and Underlier ID Source [ISIN; FIGI; CUSIP; SEDOL; LEI; CRIDX; PROP; UPI] will be required in the REQUEST message and only one value can be selected in the enumeration.
- If Underlying Structure selected is a “Basket”, Underlying Asset Type attribute will be present in the REQUEST and RECORD templates with enumerated values [Swaps, Other].
- If Underlying Structure selected is a “Basket”, attributes Underlier ID and Underlier ID Source will not be present in the REQUEST and RECORD templates.

3.2.2 Underlying Asset Type

The following validations will apply based on the Underlying Asset Type selected. For each given Underlying Asset Type, the attributes will vary accordingly:

a. “CDS on Single Name”

- If Underlying Asset Type selected is a “CDS on Single Name”, Underlier ID and Underlier ID Source attributes will be required in the REQUEST message.
- Underlier ID Source must be [ISIN, FIGI, CUSIP, SEDOL, LEI or UPI] and only single value is allowed.
- Validation of the Underlier ID will apply based on the Underlier ID Source [ISIN, FIGI, CUSIP, SEDOL, LEI or UPI].

b. “CDS on Index” or “CDS on Index Tranche”

- If Underlying Asset Type selected is a “CDS on Index” or “CDS on Index Tranche”, Underlier ID and Underlier ID Source attributes will be required in the REQUEST message.
- Underlier ID Source must be [CRIDX, PROP or UPI] and only single value is allowed.
- Validation of the Underlier ID will apply based on the Underlier ID Source [CRIDX, PROP or UPI].

c. “Swaps”

- If Underlying Asset Type selected is ”Swaps”, Underlier ID and Underlier ID Source attributes will be required in the REQUEST message.
- Underlier ID Source must be [ISIN, FIGI, CUSIP, SEDOL or UPI] and only single value is allowed.
- Validation of the Underlier ID will apply based on the Underlier ID Source [ISIN, FIGI, CUSIP, SEDOL or UPI].

d. “Other”

- If Underlying Asset Type selected is “Other”, Underlier ID and Underlier ID Source attributes will be required in the REQUEST templates.
- Underlier ID Source must be [ISIN, FIGI, CUSIP, SEDOL, LEI, CRIDX, PROP or UPI] and only single value is allowed.
- Validation of the Underlier ID will apply based on the Underlier ID Source [ISIN, FIGI, CUSIP, SEDOL, LEI, CRIDX, PROP or UPI].

3.2.3 Underlying Instrument Index Term Value / Underlying Instrument Index Term Unit

a. If Underlier ID Source selected is CRIDX, the following validation will apply:
   - Underlying Instrument Index Term Value and Underlying Instrument Index Term Unit must be present in the REQUEST and RECORD messages.
   - Underlying Instrument Index Term Unit: *[DAYS; WEEK; MNTH; YEAR].*
   - Underlying Instrument Index Term Value: Input text must be an integer from -999 to 999 (but not 0).
   - If the input text is more than the value of 999, an error message will apply “Value must be at most 999.”.
   - If the input text is more than the value of -999, an error message will apply “Value must be at least -999.”.
   - If input text is equal to “0”, an error message will apply “Value must not validate against the provided schema. Value can't be 0.”.

b. If Underlier ID Source selected is PROP, the following validation will apply:
   - Underlying Instrument Index Term Value and Underlying Instrument Index Term Unit must be present in the REQUEST and RECORD messages.
   - Underlying Instrument Index Term Unit: [DAYS; WEEK; MNTH; YEAR].
   - Underlying Instrument Index Term Value: Input text must be an integer from -999 to 999 (including 0).
   - If the input text is more than the value of 999, an error message will apply “Value must be at most 999.”.
   - If the input text is more than the value of -999, an error message will apply “Value must be at least -999.”.

c. If Underlier ID Source selected is [ISIN, FIGI, CUSIP, SEDOL, LEI, or UPI], Underlying Instrument Index Term Value/Unit attributes will not be present in the REQUEST and RECORD messages.

3.2.4 Underlying Credit Index Series / Underlying Credit Index Version

a. If Underlier ID Source selected is CRIDX, the following validations will apply:
   - Underlying Credit Index Series and Underlying Credit Index Version attributes must be present in the REQUEST and RECORD messages.
   - The input text by the user must be a positive integer from 1 to 999.
   - If the input text has a prefix of negative (-), an error message will apply: “Value must be at least 1.”
   - If the input contains negative (-) after the integer, an error message will apply “Value must be of type integer. Value must be at most 999. Value must be at least 1.”
   - If the input text contains character, remove the character and retain the integer if exists.

b. If Underlier ID Source selected is PROP, the following validations will apply:

   - The input text by the user must be a positive integer from 0 to 999.
   - If the input text has a prefix of negative (-), an error message will apply: “Value must be at least 0.”
   - If the input contains negative (-) after the integer, an error message will apply “Value must be of type integer. Value must be at most 999. Value must be at least 0.”
   - If the input text contains character, remove the character and retain the integer if exists.

c. If Underlier ID Source selected is [ISIN, FIGI, CUSIP, SEDOL, LEI or UPI], Underlying Credit Index Series/Version attributes will not be present in the REQUEST and RECORD messages.

4 RECORD TEMPLATE

This section describes the record returned by the UPI service.

Version	Template name	Template details	Release
V.1	**Credit.Option.Non_Standard.UPI.V1.json**	Initial version	Initial

Section	Attribute	Format	Cat	Example Value	Derivation
Header Section	Asset Class	Set	M	Credit	
	Instrument Type	Set	M	Option	
	Product	Set	M	Non_Standard	
	Level	Set	M	UPI	
	Template Version	Integer	D	1	
Attribute Section	Underlier Characteristic	Enum	M	Single	[Single, Basket]
	Underlying Asset Type	Enum	M	CDS on Index	See Validation Rules
	Underlying Instrument ISIN	String	C	US92857WBQ24	Syntactic Validation
	Underlying Instrument LEI	String	C	INR2EJN1ERAN0W5ZP974	Syntactic Validation
	Underlying Instrument Index	Enum	C	ITRAXX EUROPE	Enumerated List
	Underlying Instrument Index Prop	String	C	11339-MLSREISU	See Validation Rules
	Underlying Instrument UPI	String	C	QZLPDFD5N6T3	See Validation Rules
	Underlying Instrument Index Term Value	Integer	C	3	See Validation Rules
	Underlying Instrument Index Term Unit	Enum	C	WEEK	[DAYS, WEEK, MNTH, YEAR]
	Underlying Credit Index Series	Integer	C	2	See Validation Rules
	Underlying Credit Index Version	Integer	C	4	See Validation Rules
	Debt Seniority	Enum	C	SNDB	[SNDB, MZZD, SBOD, JUND]
	Option Exercise Style	Enum	M	BERM	[AMER, BERM, EURO]
	Option Type	Enum	M	OPTL	[CALL, PUTO, OPTL]
	Valuation Method or Trigger	Enum	M	Asian	[Vanilla, Asian, Digital (Binary), etc.]
	Delivery Type	Enum	M	PHYS	[CASH, PHYS, OPTL]
Identifier Section	UPI	String	D	QZHMCJH8SR72	
	Status	String	D	New	[New; Updated; Deleted; Deprecated]
	Status Reason	String	D	<null>	
	Last Update Date Time	DtTm	D	2021-06-02T08:26:18	YYYY-MM-DDThh:mm:ss
Derived Section	Classification Type	String	D	HCIIAP	See Derivation Rules
	Short Name	String	D	NA/CDS Nstd ASIN	See Derivation Rules
	Underlier Name	String	D	ITRAXX EUROPE	See Derivation Rules
	CFI Option Style and Type	String	D	Bermudan-Chooser	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 Classification Type

Attribute	Classification Type		
Structure	Instrument Type + Asset Class + Underlying Asset Type + Option Type/Style + Valuation Method or Trigger + Delivery Type		
Example	HCIIAP		
Source	ISO 10962 (CFI) – Third edition 2015-07-15		
Source Attribute	**Source Value**	**Derivation Method**	**Result**
Instrument Type	Non-listed and complex listed options	Fixed Mapping	H
Asset Class	Credit	Fixed Mapping	C
Underlying Asset Type	CDS on Single Name	Mapped to =>	U
	CDS on Index Tranche	Mapped to =>	V
	CDS on Index	Mapped to =>	I
	Swaps	Mapped to =>	W
	Other	Mapped to =>	M
Option Style and Type	PUTO/EURO	Mapped to =>	D
	CALL/EURO	Mapped to =>	A
	OPTL/EURO	Mapped to =>	G
	PUTO/AMER	Mapped to =>	E
	PUTO/BERM	Mapped to =>	F
	CALL/AMER	Mapped to =>	B
	CALL/BERM	Mapped to =>	C
	OPTL/AMER	Mapped to =>	H
	OPTL/BERM	Mapped to =>	I
Valuation Method or Trigger	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

Delivery Type	CASH	Mapped to =>	C
	PHYS	Mapped to =>	P
	OPTL	Mapped to =>	E

4.2.2 Short Name

Attribute	**Short Name**		
Structure	“NA” + "/" + Product Type + Valuation Method or Trigger + Debt Seniority*		
Example	NA/CDS Nstd ASIN		
Source	ISO 18774 (Financial Instrument Short Name) - First edition 2015-11		
Source Attribute	**Source Value**	**Derivation Method**	**Result**
Issuer Name	None	Fixed Value	NA/
Product Type	CDS Non_Standard	Fixed Abbreviation	CDS Nstd
Valuation Method or Trigger	Vanilla	Mapped to =>	Van
	Asian	Mapped to =>	ASIN
	Digital (Binary)	Mapped to =>	Dig
	Barrier	Mapped to =>	Bar
	Digital Barrier	Mapped to =>	DigBar
	Lookback	Mapped to =>	Lkbck
	Other Path Dependent	Mapped to =>	OthDep
	Other	Mapped to =>	Oth
Debt Seniority*	SNDB	Mapped to =>	Sr
	MZZD	Mapped to =>	Mz
	SBOD	Mapped to =>	Sub
	JUND	Mapped to =>	Jr

**Debt Seniority only applies if Underlier ID Source selected is [ISIN, FIGI, CUSIP, SEDOL, LEI].*

4.2.3 Underlier Name

Based on the Underlier Type selected, the following Underlier Name derivation rules will apply:

Attribute	Underlier Name			
Underlying Asset	**Underlier Name Source**	**Underlier Name Source Attribute**		**Underlier Name**
Underlying ID with Underlying ID Source [ISIN]	ISIN Reference Data	longName of Underlying Instrument ISIN	ISIN is found in ISIN Reference Data.	VODAFONE GROUP PLC
			ISIN is found in ISIN Reference Data, but its description is missing.	No name available
			ISIN is not found in ISIN Reference Data.	No name obtainable
Underlying ID with Underlying ID Source [LEI]	LEI Reference Data	The name of the legal entity	LEI is found in LEI Reference Data.	MICROSOFT CORPORATION
			LEI is found in LEI Reference Data, but its legal name is missing.	No name available
			LEI is not found in LEI Reference Data.	No name obtainable
Underlying ID with Underlying ID Source [CRIDX]	UPI record	Underlying Instrument Index		ITRAXX EUROPE
Underlying ID with Underlying ID Source [PROP]	UPI record	Underlying Instrument Index Prop		11339-MLSREISU
Underlying ID with Underlying ID Source [UPI]	Underlying UPI record	FISN of Underlying Instrument UPI		NA/CDS Corp SN Sr
Basket	Constant	N/A		Basket

4.2.4 CFI Option Style and Type

Attribute	CFI Option Style and Type		
Source Attribute	**Source Value**	**Derivation Method**	**Result**
Option Style and Type	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

4.2.5 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 Contract Specification attribute only applies to Credit.Swap.Corporate; Credit.Swap.Municipal; Credit.Swap.Sovereign and Credit.Swap.Non_Standard. It does not apply to Credit.Swap.Loan; Credit.Swap.ABS; Credit.Swap.Index; Credit.Swap.Index_Tranche and Credit.Swap.Total_Return_Swap.

- The current behaviour of underlying asset type in the OTC ISIN where it accepts “Swaps” and “Other” applies if single underlier or basket is selected.

- Underlier sub-type (first level) will be represented by the Underlier Characteristic which varies depending on the underlying structure of the product, i.e., a single underlier or a multiple underliers (Basket).

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 Style	Option Style
Option type	M	Option Type	Option Type
Return, pricing method or payout trigger	M	Valuation Method or Trigger	Valuation Method or Trigger
Seniority*	M	Debt Seniority	Debt Seniority
Standard Contract Specification**	C	Not Required	Not Required
Underlier ID	C	Underlier ID	Underlying Instrument ISIN
			Underlying Instrument LEI
			Underlying Instrument Index
			Underlying Instrument Index Prop
			Underlying Instrument UPI
Underlier ID source	C	Underlier ID Source	Not Required
Underlier type	M	Underlying Asset Type	Underlying Asset Type
Underlier sub-type (first level)***	M	Underlying Structure	Underlier Characteristic
Underlying credit index series****	C	Underlying Credit Index Series	Underlying Credit Index Series
Underlying credit index version****	C	Underlying Credit Index Version	Underlying Credit Index Version

**Seniority applies only if the underlying is a Legal Entity or a Debt Instrument.*
***Standard Contract Specification applies only to specific Credit Default Swap products, refer to Additional Comments above.*
****Underlier sub-type (first level) is represented by Underlier Characteristic, refer to Additional Comments above.*
*****Underlying credit index series/version applies only if the underlying is a Credit Index or a Proprietary Index.*

7 APPENDIX 2 - OTC ISIN-UPI MAPPING

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

One Of	ISIN Input Attributes		Mapping Logic	UPI Input Attributes	Sample UPI Value	Comments
	Asset Class		Direct Map	Asset Class	Credit	
	Instrument Type		Direct Map	Instrument Type	Option	
	Use Case		Direct Map	Product	Non_Standard	
	Level		Set to "UPI"	Level	UPI	
	Notional Currency		No Mapping			
	Expiry Date		No Mapping			
	Price Multiplier		No Mapping			
A	Underlying Instrument ISIN	If Underlying Asset Type = "CDS on Single Name" or "Swaps" or "Other"	Set to "Fixed Income Security"	Underlier Type	Fixed Income Security	"One Of" Underlier Type
			Map to	Underlier ID	US92857WBQ24	
			Set to "ISIN, FIGI, CUSIP, SEDOL"	Underlier ID Source	ISIN	
			Set to "UPI"	Underlier Type	UPI	
			From Underlying Instrument ISIN/Parent/UPI	Underlier ID	QZQBT22R6XX4	
			Set to "UPI"	Underlier ID Source	UPI	
		If Underlying Instrument > 1	Map to	Underlying Structure	Basket	
	Debt Seniority		Direct Map	Debt Seniority	SNDB	
B	Underlying Instrument LEI	If Underlying Asset Type = "CDS on Single Name" or "Other"	Set to "Legal Entity"	Underlier Type	Legal Entity	"One Of" Underlier Type
			Map to	Underlier ID	INR2EJN1ERAN0W5ZP974	
			Set to "LEI"	Underlier ID Source	LEI	
		If Underlying Instrument > 1	Map to	Underlying Structure	Basket	
	Debt Seniority		Direct Map	Debt Seniority	SNDB	
C	Underlying Instrument Index	If Underlying Asset Type = "CDS on Index" or "CDS on Index Tranche" or "Other"	Set to "Credit Index"	Underlier Type	Credit Index	"One Of" Underlier Type
			Map to	Underlier ID	ITRAXX EUROPE	
			Set to "CRIDX"	Underlier ID Source	CRIDX	
		If Underlying Instrument > 1	Map to	Underlying Structure	Basket	
	Underlying Instrument Index Term Value	If Underlying Instrument = 1	Direct Map	Underlying Instrument Index Term Value	21	
		If Underlying Instrument > 1	No Mapping			
	Underlying Instrument Index Term Unit	If Underlying Instrument = 1	Direct Map	Underlying Instrument Index Term Unit	DAYS	
		If Underlying Instrument > 1	No Mapping			
	Underlying Credit Index Series	If Underlying Instrument = 1	Direct Map	Underlying Credit Index Series	2	

		If Underlying Instrument > 1	No Mapping			
	Underlying Credit Index Version	If Underlying Instrument = 1	Direct Map	Underlying Credit Index Version	4	
		If Underlying Instrument > 1	No Mapping			
D	Underlying Instrument Index Prop	If Underlying Asset Type = "CDS on Index" or "CDS on Index Tranche" or "Other"	Set to "Proprietary Index"	Underlier Type	Proprietary Index	"One Of" Underlier Type
			Map to	Underlier ID	11339-MLSREISU	
			Set to "PROP"	Underlier ID Source	PROP	
		If Underlying Instrument > 1	Map to	Underlying Structure	Basket	
	Underlying Instrument Index Term Value	If Underlying Instrument = 1	Direct Map	Underlying Instrument Index Term Value	21	
		If Underlying Instrument > 1	No Mapping			
	Underlying Instrument Index Term Unit	If Underlying Instrument = 1	Direct Map	Underlying Instrument Index Term Unit	DAYS	
		If Underlying Instrument > 1	No Mapping			
	Underlying Credit Index Series	If Underlying Instrument = 1	Direct Map	Underlying Credit Index Series	2	
		If Underlying Instrument > 1	No Mapping			
	Underlying Credit Index Version	If Underlying Instrument = 1	Direct Map	Underlying Credit Index Version	4	
		If Underlying Instrument > 1	No Mapping			
	Underlying Asset Type		Direct Map	Underlying Asset Type	Other	
	Option Type		Direct Map	Option Type	OPTL	
	Option Exercise Style		Direct Map	Option Exercise Style	BERM	
	Valuation Method or Trigger		Direct Map	Valuation Method or Trigger	Asian	
	Delivery Type		Direct Map	Delivery Type	PHYS	

