Derivatives Service Bureau

Other : Other : Non_Standard

UPI Product Definition

Version 5

Date	Status	Version	Revision Details
05 Sep 2022	Draft	1	Initial Version
21 Sep 2022	Draft	2	• Update Request and Record templates layout and validation rules • Update OTC ISIN-UPI Mapping for Underlying Asset Class.Commodities
19 Dec 2022	Draft	3	Update Request and Record templates layout and validation rules
09 Jan 2023	Draft	4	• Update example values in the Request and Record templates layout • Rename Underlier ID Source values • Insert Underlier Name attribute and Derivation rules
08 Sep 2023	Draft	5	• 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.

TABLE OF CONTENTS

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)	**M**	Others (miscellaneous)	
	Asset Class (Group)	**M**	Other assets (miscellaneous)	
Attr #1	**Further Grouping**	**S**	Other OTC derivative products	Other OTC derivative products
Attr #2	**Not applicable/undefined**	**X**	Not applicable/undefined	Not applicable/undefined
Attr #3	**Not applicable/undefined**	**X**	Not applicable/undefined	Not applicable/undefined
Attr #4	**Not applicable/undefined**	**X**	Not applicable/undefined	Not applicable/undefined

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
All	Exotic			Non_Standard (Miscellaneous)

3 REQUEST TEMPLATE

This section describes the input message received by UPI service.

Template name	Template details	Release
Request.Other.Other.Non_Standard.UPI.json	Initial version	Initial

Section	Attribute	Format	Cat	Example Value	Validation
Header Section	Asset Class	Set	M	Other	
	Instrument Type	Set	M	Other	
	Product	Set	M	Non_Standard	
	Level	Set	M	UPI	
Attribute Section	Underlying Asset Class.Rates (anyOf)	Object	C		
	Notional Currency	Enum	(M)	EUR	ISO 4217 Currency Code
	Return or Payout Trigger	Enum	(C)	Spreadbets	[Spreadbets; Forward price of underlying instrument]
A1	Underlying Structure (oneOf)	Object	(M)	Single Underlier	See Validation Rules
	Underlier ID Source	Enum	(M)	FPML	[FPML]
	Underlier ID	Enum	(M)	EUR-EXT-CPI	Floating Rate Index and Inflation Rate Index
	Reference Rate Term Value	Integer	(M)	3	-999 to 999 (including 0)
	Reference Rate Term Unit	Enum	(M)	MNTH	[DAYS; WEEK; MNTH; YEAR]
B1	Underlying Structure (oneOf)	Object	(M)	Basket	See Validation Rules
	Other Notional Currency	Enum	C	GBP	ISO 4217 Currency Code
A2	Other Leg Underlying Structure (oneOf)	Object	(C)	Single Underlier	See Validation Rules
	Other Leg Underlier ID Source	Enum	(C)	FPML	[FPML]
	Other Leg Underlier ID	Enum	(C)	GBP-LIBOR-BBA	Floating Rate Index and Inflation Rate Index
	Other Leg Reference Rate Term Value	Integer	(C)	3	-999 to 999 (including 0)
	Other Leg Reference Rate Term Unit	Enum	(C)	MNTH	[DAYS; WEEK; MNTH; YEAR]
B2	Other Leg Underlying Structure (oneOf)	Object	(C)	Basket	See Validation Rules
	Underlying Asset Class.Equity (anyOf)	Object	C		
	Return or Payout Trigger	Enum	(C)	Price	[Price; Dividend; Variance, etc.]
A	Underlying Structure (oneOf)	Object	(M)	Single Underlier	See Validation Rules
	Underlier Type (oneOf)	Object	(M)	Equity Identifier	
	Underlier ID Source	Enum	(M)	ISIN	[ISIN; FIGI; CUSIP; SEDOL]
	Underlier ID	String	(M)	GB0001383545	Syntactic Validation
	Underlier Type (oneOf)	Object	(M)	Equity Index Name	
	Underlier ID Source	Enum	(M)	EQIDX	[EQIDX]
	Underlier ID	Enum	(M)	FTSE 200 Index	ESMA TTC
	Underlier Type (oneOf)	Object	(M)	Proprietary Index	
	Underlier ID Source	Enum	(M)	PROP	[PROP]
	Underlier ID	String	(M)	34810-JPCFNAMR	DSB Proprietary Index Enumeration
B	Underlying Structure (oneOf)	Object	(M)	Basket	See Validation Rules
	Underlying Asset Class.Credit (anyOf)	Object	C		
	Return or Payout Trigger	Enum	(C)	Credit Default	[Credit Default; Total Return; Other]
A	Underlying Structure (oneOf)	Object	(M)	Single Underlier	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	Syntactic Validation
	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	Syntactic Validation
	Debt Seniority	Enum	(M)	SNDB	[SNDB; MZZD; SBOD; JUND]
	Underlier Type (oneOf)	Object	(M)	Credit Index	
	Underlier ID Source	Enum	(M)	CRIDX	[CRIDX]

Section	Attribute				Format	Cat	Example Value	Validation
				Underlier ID	Enum	(M)	ITRAXX EUROPE	Markit Indices
				Underlying Instrument Index Term Value	Integer	(M)	7	-999 to 999 (including 0)
				Underlying Instrument Index Term Unit	Enum	(M)	DAYS	[DAYS; WEEK; MNTH; YEAR]
				Underlying Credit Index Series	Integer	(M)	3	See Validation Rules
				Underlying Credit Index Version	Integer	(M)	5	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)	7	-999 to 999 (including 0)
				Underlying Instrument Index Term Unit	Enum	(M)	DAYS	[DAYS; WEEK; MNTH; YEAR]
				Underlying Credit Index Series	Integer	(M)	3	See Validation Rules
				Underlying Credit Index Version	Integer	(M)	5	See Validation Rules
		B	Underlying Structure (oneOf)		Object	(M)	Basket	See Validation Rules
	Underlying Asset Class.Foreign_Exchange (anyOf)				Object	C		
	Underlier ID Source				Enum	(M)	CCY	[CCY]
	Underlier ID				Enum	(M)	EUR	ISO 4217 Currency Code
	Other Underlier ID Source				Enum	(M)	CCY	[CCY]
	Other Underlier ID				Enum	(M)	USD	ISO 4217 Currency Code
	Return or Payout Trigger				Enum	(C)	Spreadbets	[Spreadbets; Contract for Difference (CFD); etc.]
	Settlement Currency				Enum	(C)	EUR	ISO 4217 Currency Code
	Place of Settlement				Enum	(C)	Hong Kong	Country List
	Underlying Asset Class.Commodities (anyOf)				Object	C		
	Notional Currency				Enum	(M)	USD	ISO 4217 Currency Code
	Return or Payout Trigger				Enum	(C)	Total Return	[Contract for Difference (CFD); Total Return; etc.]
	A1	Underlying Structure (oneOf)			Object	(M)	Single Underlier	See Validation Rules
			Underlier Type (oneOf)		Object	(M)	Commodity Ref Price	
				Underlier ID Source	Enum	(M)	COMM	[COMM]
				Underlier ID	Enum	(M)	SILVER-FIX	Commodity Reference Rate
			Underlier Type (oneOf)		Object	(M)	Commodity Index	
				Underlier ID Source	Enum	(M)	COIDX	[COIDX]
				Underlier ID	Enum	(M)	OTHER	Commodity Index
			Underlier Type (oneOf)		Object	(M)	Proprietary Index	
				Underlier ID Source	Enum	(M)	PROP	[PROP]
				Underlier ID	String	(M)	11339-BABXSG01	DSB Proprietary Index Enumeration
	B1	Underlying Structure (oneOf)			Object	(M)	Basket	See Validation Rules
	Base Product				Object	(M)		See Validation Rules
		Base Product			Enum	(M)	METL	[AGRI; NRGY; ENVR; etc.]
		Sub Product			Enum	(C)	PRME	[GROS; COAL; EMIS; etc.]
		Additional Sub Product			Enum	(C)	SLVR	[FWHT; EUAE; DBCR; etc.]
	Other Notional Currency				Enum	(C)	EUR	ISO 4217 Currency Code
	A2	Other Underlying Structure (oneOf)			Object	(C)	Single Underlier	See Validation Rules
		Other Underlier ID Source			Enum	(C)	COMM	[COMM]
		Other Underlier ID			Enum	(C)	GOLD-A.M. FIX	Commodity Reference Rate
	B2	Other Underlying Structure (oneOf)			Object	(C)	Basket	See Validation Rules
	Other Base Product				Object	(C)		
		Other Base Product			Enum	(C)	METL	[AGRI; NRGY; ENVR; etc.]
		Other Sub Product			Enum	(C)	PRME	[GROS; COAL; EMIS; etc.]
		Other Additional Sub Product			Enum	(C)	GOLD	[FWHT; EUAE; DBCR; etc.]
	Option Type				Enum	C	CALL	[CALL; PUTO; OPTL]
	Option Exercise Style				Enum	C	AMER	[AMER; BERM; EURO]
	Valuation Method or Trigger				Enum	C	Vanilla	[Vanilla; Asian; Barrier; etc.]
	Delivery Type				Enum	M	Physical	[Cash; Physical; Auction; etc.]

3.1 Underlier Input Method

This section describes the underlier input method to support products that are based on multiple asset classes.

Title	Description
Select Underlying Asset Class	User is allowed to identify and select the underlying asset class of a certain product. • Rates • Credit • Equity • Foreign Exchange • Commodities
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 based on the selected Underlying Asset Class.
	• Commodities
	  ○ Commodity Ref Price
	  ○ Commodity Index
	  ○ Proprietary Index
	• Credit
	  ○ Fixed Income Security
	  ○ Legal Entity
	  ○ Credit Index
	  ○ Proprietary Index
	• Equity
	  ○ Equity Identifier*
	  ○ Equity Index Name
	  ○ Proprietary Index
	**For Underlier Type "Equity Identifier", user is able to enter an ISIN of a Single Stock or an Equity Index.*

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.
	• Commodities
	  ○ Commodity Ref Price [COMM]
	  ○ Commodity Index [COIDX]
	  ○ Proprietary Index [PROP]
	• Credit
	  ○ Fixed Income Security [ISIN; FIGI; CUSIP; SEDOL]
	  ○ Legal Entity [LEI]
	  ○ Credit Index [CRIDX]
	  ○ Proprietary Index [PROP]
	• Equity
	  ○ Equity Identifier [ISIN; FIGI; CUSIP; SEDOL]
	  ○ Equity Index Name [EQIDX]
	  ○ Proprietary Index [PROP]
	• Rates
	  ○ Floating Rate Index (FPML]
	  ○ Inflation Rate Index [FPML]
	• Foreign Exchange
	  ○ Currency Pair [CCY]

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 Asset Class.Rates

a. Underlying Structure [oneOf structure]
- User can only select either Single Underlier (Single value) or Basket (Multiple values) and is a required field.
- If "Single Underlier" is selected, the Underlier ID and its Source [FPML], Reference Rate Term Value/Unit will be present in the REQUEST template.
- If "Basket" is selected, the Underlier ID and its associated attributes will not be present in the REQUEST and RECORD templates.
- Only "Basket" is allowed value in REQUEST template for multiple underliers.

b. Other Leg Underlying Structure [oneOf Structure]
- Other Leg Underlying Structure is an optional field.
- Only one can be selected in the REQUEST template if attribute is selected, either Single Underlier (single value) or Basket (multiple value).
- If "Single Underlier" is selected, the Other Leg Underlier ID Source [FPML], Other Leg Reference Rate Term Value/Unit will be present in the REQUEST template.
- If "Basket" is selected, the Other Leg Underlier ID and its associated attributes will not be present in the REQUEST and RECORD templates.
- Only "Basket" is allowed value in REQUEST template for multiple underliers.

3.2.2 Underlying Asset Class.Credit

a. Underlying Structure [oneOf structure]
- User can only select either Single Underlier (Single value) or Basket (Multiple values) and is a required field.
- If "Single Underlier" is selected, the Underlier ID and its Source [ISIN; FIGI; CUSIP; SEDOL; LEI; CRIDX; PROP] will be present in the REQUEST template.
- If "Basket" is selected, the Underlier ID and its associated attributes will not be present in the REQUEST and RECORD templates.
- Only "Basket" is allowed value in REQUEST template for multiple underliers.

b. Underlying Instrument Index Term Value and Term Unit

i. If the Underlier ID Source selected is CRIDX or PROP, the following validations 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."
- 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 -999."

ii. If the Underlier ID Source selected is [ISIN; FIGI; CUSIP; SEDOL; LEI], Underlying Instrument Index Term Value and Term Unit attributes will not be present in the REQUEST and RECORD templates.

c. Underlying Credit Index Series and Version

i. If the Underlier ID Source selected is PROP, 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 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.

3.2.3 Underlying Asset Class.Equity

a. Underlying Structure [oneOf structure]

- User can only select either Single Underlier (Single value) or Basket (Multiple values) and is a required field.
- If “Single Underlier” is selected, the Underlier ID and its Source [ISIN; FIGI; CUSIP; SEDOL; EQIDX; PROP] will be present in the REQUEST template.
- If “Basket” is selected, the Underlier ID and Underlier ID Source will not be present in the REQUEST and RECORD templates.
- Only “Basket” is allowed value in REQUEST template for multiple underliers.

3.2.4 Underlying Asset Class.Commodities

a. Underlying Structure [oneOf structure]

- User can select either Single Underlier (Single value) or Basket (Multiple values) and is a required field.
- If “Single Underlier” is selected, the Underlier ID and its Source [COMM; COIDX; PROP], Base Product, Sub Product and Additional Sub Product will be present in the REQUEST template.
- If “Basket” is selected, the Underlier ID and its associated attributes will not be present in the REQUEST and RECORD templates. However, Base Product, Sub Product and Additional Sub Product must be present in the REQUEST template.
- Only “Basket” is allowed value in REQUEST template for multiple underliers.

b. Other Underlying Structure [oneOf structure]

- Other Underlying structure is an optional field.
- If “Single underlier” is selected, the Other Underlier ID and its Source [COMM], Other Base Product, Other Sub Product and Other Additional Sub Product will be present in the REQUEST template.
- If “Basket” is selected, the Other underlier ID and its associated attributes will not be present in the REQUEST and RECORD template. However, Other Base Product, Other Sub Product and Other Additional Sub Product must be present in the REQUEST template.
- Only “Basket” is allowed value in REQUEST template for multiple underliers.

c. Notional Currency and Other Notional Currency

- User can select Notional Currency only or both Notional/Other Notional Currency.
- Notional Currency is a required field, whilst the Other Notional Currency is an optional field.
- Currency for both legs cannot be identical.
- If the following attributes have the same currency, an error message will apply “Error: Notional Currency and Other Notional Currency cannot be identical”.

3.2.5 Return or Payout Trigger, Valuation Method or Trigger, Option Type, Option Exercise Style

- User can select one or both Return or Payout Trigger or Valuation Method Trigger in the REQUEST template.
- If Option type is selected, Option Exercise Style and Valuation Method Trigger must be populated.
- If one of the attributes [Return or Payout Trigger or Valuation Method or Trigger] is not selected, an error message will apply: "[missing attribute/s] must be populated”.

3.2.6 Underlying Asset Class = “Null”

- If user did not select any values in the Underlying Asset Class, an error message shall apply “Error: At least one Underlying Asset Class must be selected”.

4 Record Template

This section describes the record returned by the UPI service.

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

Section	Attribute	Format	Cat	Example Value	Derivation
Header Section	Asset Class	Set	M	Other	
	Instrument Type	Set	M	Other	
	Product	Set	M	Non_Standard	
	Level	Set	M	UPI	
	Template Version	Integer	D	1	
Attribute Section	Underlying Asset Class.Rates	Object	C		
	Notional Currency	Enum	(M)	EUR	Enumerated List
	Return or Payout Trigger	Enum	(C)	Spreadbets	[Spreadbets; Forward price of underlying instrument]
	Underlier Characteristic	Enum	(M)	Single	[Single; Basket]
	Reference Rate	Enum	(C)	EUR-EXT-CPI	Enumerated List
	Reference Rate Term Value	Integer	(C)	3	-999 to 999 (including 0)
	Reference Rate Term Unit	Enum	(C)	MNTH	[DAYS; WEEK; MNTH; YEAR]
	Other Notional Currency	Enum	(C)	GBP	Enumerated List
	Other Leg Underlier Characteristic	Enum	(C)	Single	[Single; Basket]
	Other Leg Reference Rate	Enum	(C)	GBP-LIBOR-BBA	Enumerated List
	Other Leg Reference Rate Term Value	Integer	(C)	3	-999 to 999 (including 0)
	Other Leg Reference Rate Term Unit	Enum	(C)	MNTH	[DAYS; WEEK; MNTH; YEAR]
	Underlying Asset Class.Equity	Object	C		
	Return or Payout Trigger	Enum	(C)	Price	[Price; Dividend; Variance, etc.]
	Underlier Characteristic	Enum	(M)	Single	[Single; Basket]
	Underlying Instrument ISIN	String	(C)	GB0001383545	Syntactic Validation
	Underlying Instrument Index	Enum	(C)	FTSE 200 Index	Enumerated List
	Underlying Instrument Index Prop	String	(C)	34810-JPCFNAMR	Enumerated List
	Underlying Asset Class.Credit	Object	C		
	Return or Payout Trigger	Enum	(C)	Credit Default	[Credit Default; Total Return; Other]
	Underlier Characteristic	Enum	(M)	Single	[Single; Basket]
	Underlying Instrument ISIN	String	(C)	US92857WBQ24	Syntactic Validation
	Underlying Instrument LEI	String	(C)	INR2EJN1ERAN0W5ZP974	Syntactic Validation
	Debt Seniority	Enum	(C)	SNDB	[SNDB; MZZD; SBOD; JUND]
	Underlying Instrument Index Prop	String	(C)	11339-MLSREISU	Enumerated List
	Underlying Instrument Index	Enum	(C)	ITRAXX EUROPE	Enumerated List
	Underlying Instrument Index Term Value	Integer	(C)	1	-999 to 999 (including 0)
	Underlying Instrument Index Term Unit	Enum	(C)	WEEK	[DAYS; WEEK; MNTH; YEAR]
	Underlying Credit Index Series	Integer	(C)	3	See Validation Rules
	Underlying Credit Index Version	Integer	(C)	5	See Validation Rules
	Underlying Asset Class.Foreign_Exchange	Object	C		
	Notional Currency	Enum	(M)	EUR	Enumerated List
	Other Notional Currency	Enum	(M)	USD	Enumerated List
	Return or Payout Trigger	Enum	(C)	Spreadbets	[Spreadbets; Contract for Difference (CFD); etc.]
	Settlement Currency	Enum	(C)	EUR	Enumerated List
	Place of Settlement	Enum	(C)	Hong Kong	Enumerated List
	Underlying Asset Class.Commodities	Object	C		
	Notional Currency	Enum	(M)	EUR	Enumerated List
	Return or Payout Trigger	Enum	(C)	Total Return	[Contract for Difference (CFD); Total Return; etc.]
	Underlier Characteristic	Enum	(M)	Single	[Single; Basket]

Section	Attribute	Format	Cat	Example Value	Derivation
	Reference Rate	Enum	(C)	GOLD-A.M. FIX	Enumerated List
	Underlying Instrument Index	Enum	(C)	OTHER	Enumerated List
	Underlying Instrument Index PROP	String	(C)	11339-BABXSG01	Enumerated List
	Base Product	Enum	(M)	METL	Enumerated List
	Sub Product	Enum	(C)	PRME	Enumerated List
	Additional Sub Product	Enum	(C)	GOLD	Enumerated List
	Other Notional Currency	Enum	(C)	USD	Enumerated List
	Other Underlier Characteristic	Enum	(C)	Single	[Single; Basket]
	Other Reference Rate	Enum	(C)	SILVER-FIX	Enumerated List
	Other Base Product	Enum	(C)	METL	Enumerated List
	Other Sub Product	Enum	(C)	PRME	Enumerated List
	Other Additional Sub Product	Enum	(C)	SLVR	Enumerated List
	Option Type	Enum	C	CALL	[CALL; PUTO; OPTL]
	Option Exercise Style	Enum	C	AMER	[AMER; BERM; EURO]
	Valuation Method or Trigger	Enum	C	Vanilla	[Vanilla; Asian; Barrier; etc.]
	Delivery Type	Enum	M	Physical	[Cash; Physical; Auction; etc.]
Identifier Section	UPI	String	D	QZHDP6732T52	
	Status	String	D	New	[New; Updated; Deleted]
	Status Reason	String	D	<null>	
	Last Update Date Time	DtTm	D	2021-02-23T00:00:13	YYYY-MM-DDThh:mm:ss
Derived Section	Classification Type	String	D	MMSXXX	See Derivation Rules
	Short Name	String	D	NA/Oth Oth Nstd	See Derivation Rules
	Underlying Asset Class.Rates	Object	C		
	Underlier Name	String	D	EUR-EXT-CPI vs GBP-LIBOR-BBA	See Derivation Rules
	Underlying Asset Class.Credit	Object	C		
	Underlier Name	String	D	Vodafone Group PLC	See Derivation Rules
	Underlying Asset Class.Equity	Object	C		
	Underlier Name	String	D	FTSE 200 Index	See Derivation Rules
	Underlying Asset Class.Foreign_Exchange	Object	C		
	Underlier Name	String	D	EUR USD	See Derivation Rules
	Underlying Asset Class.Commodities	Object	C		
	Underlier Name	String	D	GOLD-A.M. FIX vs Basket	See Derivation Rules
	Further Grouping	String	D	Other OTC derivative products	Fixed value

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 + Further Grouping + N/A + N/A + N/A		
Example	MMSXXX		
Source	ISO 10962 (CFI) – Third edition 2015-07-15		
Source Attribute	**Source Value**	**Derivation Method**	**Result**
Instrument Type	Others (miscellaneous)	Fixed Mapping	M
Asset Class	Other assets	Fixed Mapping	M
Further Grouping	Other OTC derivative products	Fixed Mapping	S
Not applicable/undefined	Not applicable/undefined	Fixed Mapping	X
Not applicable/undefined	Not applicable/undefined	Fixed Mapping	X
Not applicable/undefined	Not applicable/undefined	Fixed Mapping	X

4.2.2 Short Name

Attribute	Short Name		
Structure	"NA" + "/" + Instrument Type + Asset Class + Product Type		
Example	NA/Oth Oth Nstd		
Source	ISO 18774 (Financial Instrument Short Name) - First edition 2015-11		
Source Attribute	**Source Value**	**Derivation Method**	**Result**
Issuer Name	None	Fixed Value	NA/
Instrument Type	Others (miscellaneous)	Fixed Abbreviation	Oth
Asset Class	Other assets	Fixed Abbreviation	Oth
Product Type	Non-Standard	Fixed Abbreviation	Nstd

4.2.3 Underlier Name

Attribute	Underlier Name					
Underlying Asset Class	**Underlying Structure**	**Other Underlying Structure**	**Underlying Asset**	**Underlier Name Source**	**Underlier Name Source Attribute**	**Underlier Name**
Rates	Single Underlier	Single Underlier	Reference Rate / Other Leg Reference Rate	UPI record	Reference Rate vs Other Leg Reference Rate	EUR-EXT-CPI vs GBP-LIBOR-BBA
	Basket	Basket	N/A	Constant	N/A	Basket vs Basket
	Single Underlier	Basket	Reference Rate	UPI record vs Constant	Reference Rate	EUR-EXT-CPI vs Basket
	Basket	Single Underlier	Other Leg Reference Rate	Constant vs UPI record	Other Leg Reference Rate	GBP-LIBOR-BBA vs Basket
	Single Underlier	-	Reference Rate	UPI record	Reference Rate	EUR-EXT-CPI
	Basket	-	N/A	Constant	N/A	Basket
Credit	Single Underlier	-	Underlying ISIN	ISIN Reference Data	longName of Underlying Instrument ISIN	Vodafone Group PLC
	Single Underlier	-	Underlying LEI	LEI Reference Data	The name of the legal entity	MICROSOFT CORPORATION
	Single Underlier	-	Underlying Index	UPI record	Underlying Instrument Index	ITRAXX EUROPE
	Single Underlier	-	Underlying Index Prop	UPI record	Underlying Instrument Index Prop	11339-MLSREISU
	Basket	-	N/A	Constant	N/A	Basket
Equity	Single Underlier	-	Underlying ISIN	ISIN Reference Data	longName of Underlying Instrument ISIN	Vodafone Group PLC
	Single Underlier	-	Underlying Index	UPI record	Underlying Instrument Index	FTSE 200 Index
	Single Underlier	-	Underlying Index Prop	UPI record	Underlying Instrument Index Prop	34810-JPCFNAMR
	Basket	-	N/A	Constant	N/A	Basket
Foreign Exchange	-	-	Notional Currency / Other Notional Currency	UPI record	Notional Currency vs Other Notional Currency	EUR USD
Commodities	Single Underlier	-	Reference Rate	UPI record	Reference Rate	GOLD-A.M. FIX
	Single Underlier	-	Underlying Index	UPI record	Underlying Instrument Index	OTHER
	Single Underlier	-	Underlying Index Prop	UPI record	Underlying Instrument Index Prop	11339-BABXSG01
	Basket	-	N/A	Constant	N/A	Basket
	Single Underlier	Single Underlier	Reference Rate / Other Reference Rate	UPI record	Reference Rate vs Other Reference Rate	GOLD-A.M. FIX vs SILVER-FIX
	Single Underlier	Basket	Reference Rate / N/A	UPI record vs Constant	Reference Rate	GOLD-A.M. FIX vs Basket
	Basket	Single Underlier	N/A / Other Reference Rate	Constant vs UPI record	Other Reference Rate	SILVER-FIX vs Basket
	Basket	Basket	N/A	Constant vs Constant	N/A	Basket vs Basket

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

- Delivery type enumerated values [Cash; Physical; Auction; Elect at Exercise, Elect at Settlement, Non-Deliverable] are the superset of values from CFI 2015 specification. Thus, CFI Delivery Type is no longer required as a derived value in the RECORD template. It is not included as an attribute in the CFI code (MMSXXX) but it is being added on the basis of the CDIDE requirement.

- Delivery type enumerated value “Non-Deliverable” is included in the CFI 2015 specification but is not supported in the OTC ISIN for Other.Option.Non-Standard product template. In order to maintain UPI/OTC ISIN hierarchy, such enumerated value will be supported for this product.

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
Currency associated with an underlying reference rate	C	Notional Currency	Notional Currency
Delivery type	M	Delivery Type	Delivery Type
Notional schedule	C	Not Required	Not Required
Option style	C	Option Exercise Style	Option Exercise Style
Option type	C	Option Type	Option Type
Return, pricing method or payout trigger	M	Return or Payout Trigger	Return or Payout Trigger
		Valuation Method or Trigger	Valuation Method or Trigger
Seniority	C	Debt Seniority	Debt Seniority
Settlement currency	C	Settlement Currency	Settlement Currency
Single or multiple currency*	C	Not Required	Not Required
Standard contract specification*	C	Not Required	Not Required
Underlier ID	C	Underlier ID	Reference Rate
			Other Leg Reference Rate
			Other Reference Rate
			Underlying Instrument ISIN
			Underlying Instrument LEI
			Underlying Instrument Index
			Underlying Instrument Index Prop
			Notional Currency
			Other Notional Currency
Underlier ID source	C	Underlier ID Source	Not Required
Underlier type	M	Not Required	Further Grouping
Underlier sub-type (first level)	C	Base Product	Base Product
		Other Base Product	Other Base Product
Underlier sub-type (second level)	C	Sub Product	Sub Product
		Other Sub Product	Other Sub Product
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
Underlying rate index tenor period	C	Reference Rate Term Unit	Reference Rate Term Unit
		Other Reference Rate Term Unit	Other Reference Rate Term Unit
		Underlying Instrument Index Term Unit	Underlying Instrument Index Term Unit
Underlying rate index tenor period multiplier	C	Reference Rate Term Value	Reference Rate Term Value
		Other Reference Rate Term Value	Other Reference Rate Term Value
		Underlying Instrument Index Term Value	Underlying Instrument Index Term Value

**Single or multiple currency and Standard contract specification attributes are not included in the OTC ISIN and are Conditional attributes in ISO 4914 (UPI) specification.*

7 Appendix 2 - OTC ISIN-UPI Mapping

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

anyOf	ISIN Input Attributes	Condition	Mapping Logic	UPI Input Attributes	Example UPI Value	Comments
	Asset Class		Direct Map	Asset Class	Other	
	Instrument Type		Direct Map	Instrument Type	Other	
	Use Case		Direct Map	Product	Non_Standard	
	Level		Set to "UPI"	Level	UPI	
	Expiry Date		No Mapping			
	Price Multiplier		No Mapping			
	Option Type		Direct Map	Option Type	CALL	
	Option Exercise Style		Direct Map	Option Exercise Style	AMER	
	Valuation Method or Trigger		Direct Map	Valuation Method or Trigger	Vanilla	
	Delivery Type		Direct Map	Delivery Type	Physical	
Underlying Asset Class.Rates						
	By Tenor					
	Term of Contract Value		No Mapping			
	Term of Contract Unit		No Mapping			
	By Effective Date					
	Effective Date		No Mapping			
	Expiry Date Adjusted		No Mapping			
	Tenor Calculator Method		No Mapping			
	Notional Currency		Direct Map	Notional Currency	EUR	
	Reference Rate	If Reference Rate = 1	If Reference Rate = 1 = "Single Underlier"	Underlying Structure	Single Underlier	"One Of" Underlying Structure
			Map to	Underlier ID	EUR-EXT-CPI	
			Set to "FPML"	Underlier ID Source	FPML	
		If Reference Rate > 1	If Reference Rate > 1 = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure
	Reference Rate Term Value	If Reference Rate = 1	Direct Map	Reference Rate Term Value	3	
		If Reference Rate > 1	No Mapping			
	Reference Rate Term Unit	If Reference Rate = 1	Direct Map	Reference Rate Term Unit	MNTH	
		If Reference Rate > 1	No Mapping			
	Return or Payout Trigger		Direct Map	Return or Payout Trigger	Spreadbets	
	Other Notional Currency		Direct Map	Other Notional Currency	GBP	
	Other Leg Reference Rate	If Reference Rate = 1	If Reference Rate = 1 = "Single Underlier"	Underlying Structure	Single Underlier	"One Of" Underlying Structure

anyOf	ISIN Input Attributes	Condition	Mapping Logic	UPI Input Attributes	Example UPI Value	Comments
			Map to	Other Leg Underlier ID	GBP-LIBOR-BBA	
			Set to "FPML"	Other Leg Underlier ID Source	FPML	
		If Reference Rate > 1	If Reference Rate > 1 = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure
	Other Leg Reference Rate Term Value	If Reference Rate = 1	Direct Map	Other Leg Reference Rate Term Value	3	
		If Reference Rate > 1	No Mapping			
	Other Leg Reference Rate Term Unit	If Reference Rate = 1	Direct Map	Other Leg Reference Rate Term Unit	MNTH	
		If Reference Rate > 1	No Mapping			
Underlying Asset Class.Foreign Exchange						
	Notional Currency		Map to	Underlier ID	EUR	
			Set to “CCY”	Underlier ID Source	CCY	
	Other Notional Currency		Map to	Underlier ID	USD	
			Set to “CCY”	Underlier ID Source	CCY	
	Return or Payout Trigger		Direct Map	Return or Payout Trigger	Spreadbets	
	Settlement Currency		Direct Map	Settlement Currency	EUR	
	Place of Settlement		Direct Map	Place of Settlement	Hong Kong	
Underlying Asset Class.Credit						
	Return or Payout Trigger		Direct Map	Return or Payout Trigger	Credit Default	
	Underlying Instrument ISIN	If Underlying Instrument ISIN = 1	If Underlying Instrument ISIN = 1 = "Single Underlier"	Underlying Structure	Single Underlier	"One Of" Underlying Structure
			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	
		If Underlying Instrument ISIN > 1	If Underlying Instrument ISIN > 1 = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure
	Underlying Instrument LEI	If Underlying Instrument LEI = 1	If Underlying Instrument LEI = 1 = "Single Underlier"	Underlying Structure	Single Underlier	"One Of" Underlying Structure
			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 LEI > 1	If Underlying Instrument LEI > 1 = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure
	Underlying Instrument Index Prop	If Underlying Instrument	If Underlying Instrument Index Prop = 1 = "Single Underlier"	Underlying Structure	Single Underlier	"One Of" Underlying Structure

anyOf	ISIN Input Attributes	Condition	Mapping Logic	UPI Input Attributes	Example UPI Value	Comments
		Index Prop = 1	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 Index Prop > 1	If Underlying Instrument PROP > 1 = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure
	Underlying Instrument Index	If Underlying Instrument Index = 1	If Underlying Instrument Index = 1 = "Single Underlier"	Underlying Structure	Single Underlier	"One Of" Underlying Structure
			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 Index > 1	If Underlying Instrument Index > 1 = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure
	Underlying Instrument Index Term Value	If Underlying Instrument Index = 1	Direct Map	Underlying Instrument Index Term Value	7	
		If Underlying Instrument Index > 1	No Mapping			
	Underlying Instrument Index Term Unit	If Underlying Instrument Index = 1	Direct Map	Underlying Instrument Index Term Unit	DAYS	
		If Underlying Instrument Index > 1	No Mapping			
	Underlying Credit Index Series	If Underlying Instrument Index = 1	Direct Map	Underlying Credit Index Series	3	
		If Underlying Instrument Index > 1	No Mapping			
	Underlying Credit Index Version	If Underlying Instrument Index = 1	Direct Map	Underlying Credit Index Version	5	
		If Underlying Instrument Index > 1	No Mapping			
	Debt Seniority		Direct Map	Debt Seniority	SNDB	
Underlying Asset Class.Equity						
	Strike Price Type		No Mapping			
	Strike Price		No Mapping			
	Strike Price Currency		No Mapping			
	Return or Payout Trigger		Direct Map	Return or Payout Trigger	Price	
		If Underlying Instrument ISIN = 1	If Underlying Instrument ISIN = 1 = "Single Underlier"	Underlying Structure	Single Underlier	"One Of" Underlying Structure
			Set to "Equity Identifier"	Underlier Type	Equity Identifier	"One Of" Underlier Type

anyOf	ISIN Input Attributes	Condition	Mapping Logic	UPI Input Attributes	Example UPI Value	Comments
	Underlying Instrument ISIN		Map to	Underlier ID	GB0001383545	
			Set to "ISIN; FIGI; CUSIP; SEDOL"	Underlier ID Source	ISIN	
		If Underlying Instrument ISIN > 1	If Underlying Instrument ISIN > 1 = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure
	Underlying Instrument Index	If Underlying Instrument Index = 1	If Underlying Instrument Index = 1 = "Single Underlier"	Underlying Structure	Single Underlier	"One Of" Underlying Structure
			Set to "Equity Index Name"	Underlier Type	Equity Index Name	"One Of" Underlier Type
			Map to	Underlier ID	FTSE 200 Index	
			Set to "EQIDX"	Underlier ID Source	EQIDX	
		If Underlying Instrument Index > 1	If Underlying Instrument Index > 1 = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure
	Underlying Instrument Index Prop	If Underlying Instrument Index Prop = 1	If Underlying Instrument Index Prop = 1 = "Single Underlier"	Underlying Structure	Single Underlier	"One Of" Underlying Structure
			Set to "Proprietary Index"	Underlier Type	Proprietary Index	"One Of" Underlier Type
			Map to	Underlier ID	34810-JPCFNAMR	
			Set to "PROP"	Underlier ID Source	PROP	
		If Underlying Instrument Index Prop > 1	If Underlying Instrument PROP > 1 = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure
Underlying Asset Class.Commodities						
	Notional Currency		Direct Map	Notional Currency	EUR	
	Underlying Instrument Index	If Underlying Instrument Index = 1	If Underlying Instrument Index = 1 = "Single Underlier"	Underlying Structure	Single Underlier	"One Of" Underlying Structure
			Set to "Commodity Index"	Underlier Type	Commodity Index	"One Of" Underlier Type
			Map to	Underlier ID	OTHER	
			Set to "COIDX"	Underlier ID Source	COIDX	
		If Underlying Instrument Index > 1	If Underlying Instrument Index > 1 = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure
	Underlying Instrument Index Prop	If Underlying Instrument Index Prop = 1	If Underlying Instrument Index Prop = 1 = "Single Underlier"	Underlying Structure	Single Underlier	"One Of" Underlying Structure
			Set to "Proprietary Index"	Underlier Type	Proprietary Index	"One Of" Underlier Type
			Map to	Underlier ID	11339-BABXSG01	
			Set to "PROP"	Underlier ID Source	PROP	
		If Underlying Instrument Index Prop > 1	If Underlying Instrument PROP > 1 = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure

anyOf	ISIN Input Attributes	Condition	Mapping Logic	UPI Input Attributes	Example UPI Value	Comments
	Reference Rate	If Reference Rate = 1	If Reference Rate = 1 = "Single Underlier"	Underlying Structure	Single Underlier	"One Of" Underlying Structure
			Set to "Commodity Ref Price"	Underlier Type	Commodity Ref Price	"One Of" Underlier Type
			Map to	Underlier ID	GOLD-A.M. FIX	
			Set to "COMM"	Underlier ID Source	COMM	
		If Reference Rate > 1	If Reference Rate > 1 = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure
	Base Product		Direct Map	Base Product	METL	
	Sub Product		Direct Map	Sub Product	PRME	
	Additional Sub Product		Direct Map	Additional Sub Product	GOLD	
	Other Notional Currency		Direct Map	Other Notional Currency	USD	
	Other Reference Rate	If Reference Rate = 1	If Reference Rate = 1 = "Single Underlier"	Underlying Structure	Single Underlier	"One Of" Underlying Structure
			Map to	Other Underlier ID	SILVER-FIX	
			Set to “COMM”	Other Underlier ID Source	COMM	
		If Reference Rate > 1	If Reference Rate > 1 = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure
	(Other) Base Product		Direct Map	Other Base Product	METL	
	(Other) Sub Product		Direct Map	Other Sub Product	PRME	
	(Other) Additional Sub Product		Direct Map	Other Additional Sub Product	SLVR	
	Return or Payout Trigger		Direct Map	Return or Payout Trigger	Total Return	
	Transaction Type		No Mapping			
	Final Price Type		No Mapping			