

DERIVATIVES SERVICE BUREAU (DSB) LTD

Other: Option: Non_Standard

UPI Product Definition

Version 7

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Date	Status	Version	Revision Details
05 Sep 2022	Draft	I	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
15 Nov 2022	Draft	3	Update Request Template Layout for "anyOf" in Underlying Asset Class
19 Dec 2022	Draft	4	Update Request and Record templates layout and validation rules
16 Jan 2023	Draft	5	 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	6	 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.
11 Dec 2023	Draft	7	 Update CFI Taxonomy. Update Request and Record template for Option Type and Option Exercise Style as Optional. Update Derivation rules for the following: Classification Type CFI Option Style and Type Update Appendix I – ISO 4914 Equivalence.

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Contents

ı	Introduction	3
1.1	Associated Documentation	3
2	Product Taxonomy	4
2.1	CFI Taxonomy	4
2.2	ISDA Taxonomy	6
3	Request Template	7
3. I	Underlier Input Method	8
3.2	Validation Rules	10
3.2.I	Underlying Asset Class.Rates	10
3.2.2	Underlying Asset Class.Credit	10
3.2.3	Underlying Asset Class.Equity	11
3.2.4	Underlying Asset Class.Commodities	11
3.2.5	Underlying Asset Class = "Null"	
4	Record Template	12
4. I	Normalization Rules	12
4.2	Derivation Rules	12
4.2. I	Classification Type	12
4.2.2	Short Name	14
4.2.3	Underlier Name	14
4.2.4	CFI Option Style and Type	16
5	Supplementary Information	17
5. I	Best Practice Guidelines	17
5.2	Additional Comments	17
6	Appendix I – ISO 4914 Equivalence	18
7	Appendix 2 - OTC ISIN-UPI Mapping	20

I. 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.

I.I Associated Documentation

The reference documents below contain values and information maintained by the DSB for consistency and ease of access.

These documents are made available on the ANNA DSB website (Product Definitions page):

Title	Description	Location
Enumerations Document	Lists all fixed values used for a product	Enumerations section
Product Definition Data Dictionary	Defines attributes in the Request and Record templates; and from which they are referenced on	
Product Definition Validations and Normalizations Document	Specifies details on validation and normalization rules	
UPI Underlier Input Method	Defines the structure for the input of the underlier following the rules that allow users to identify the Asset Class, Underlying Structure, Underlying Type, and Underlying ID Source.	Other Documents section
Best Practice Guidelines and FAQs	Lists answers to queries raised by users and provides guidance on the use of the templates	
GitHub Environment Section	ANNA DSB Github Environment where the JSON templates for each product is found	

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2. Product Taxonomy

2.1 CFI Taxonomy

Source: <u>ISO 10962</u> (CFI Code) – Third edition 2015-07-15

Attr#	Title	Values	Name	Description
	Instrument (Category)	н	Non-listed and complex listed options	
	Asset Class (Group)	М	Other assets (miscellaneous)	
Attr #I	Underlying Assets	М	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
		В	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
		С	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
		Е	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
		Н	American-Chooser	An option on a contract which allows its holder (buyer) to exercise the right to buy (call) or sell (put) specified assets

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				(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
		X	Not applicable/undefined	Note: This is included in order to support Options products with no Option Type and Option Exercise Style. However, this is taken from ISO 10962: 2015 (CFI Code).
Attr #3	Valuation method or trigger	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"
		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 barrier level; it will pay zero if the underlying price is less than the barrier level
		٧	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
		В	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
		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
		М	Others	Others (miscellaneous)

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Attr #4 Delivery Type	Delivery Type	С	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
	A	Auction	An independently administered synthetic auction process on a set of defined deliverable obligations that sets a reference final price that can be used to facilitate cash settlement of all covered transactions following a credit event	
		N	Non- Deliverable	The Delivery Type as defined by CF code: ISO 10962 (2015)

2.2 ISDA Taxonomy

The table below is based on the products identified as part of the <u>ISDA 2.0 taxonomy</u>.

Asset Class	Base Product	Sub-Product	Transaction Type	DSB Product Definition Name
All	Exotic			Non-Standard Option

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3. Request Template

The Request Template describes the input message received by the UPI service.

Users can find the detailed description of this template in the Non Standard spreadsheet that contains the layout of all templates. This can be found in the Non Standard section of the Product Definitions page on the ANNA DSB website.

Change details of the template can be found on the appropriate Github page.

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

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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	User is allowed to identify and select the underlying asset class of a certain product.
Class	• 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.
Structure	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
	o Proprietary Index
	• Credit
	Fixed Income Security
	Legal Entity
	Credit Index
	Proprietary Index
	• Equity
	o Equity Identifier*
	o Equity Index Name
	o Proprietary Index
	*For Underlier Type "Equity Identifier", user is able to enter an ISIN of a Single Stock or an Equity

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	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
	o Equity Identifier [ISIN; FIGI; CUSIP; SEDOL]
	Equity Index Name [EQIDX]
	Proprietary Index [PROP]
	• Rates
	Floating Rate Index (FPML]
	o 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.

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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."

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- 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.

3.2.5 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".

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4. Record Template

The Record Template describes the record returned by the UPI service.

Users can find the detailed description of this template in the Non Standard spreadsheet that contains the layout of all templates. This can be found in the Non Standard section of the Product Definitions page on the ANNA DSB website.

Change details of the template can be found on the appropriate Github page.

Version	Template name	Template details
V.I	Other.Option.Non_Standard.UPI.VI.json	Initial version
V.2	Other.Option.Non_Standard.UPI.V2.json	Update on Option Type and Exercise Style

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 Style/Type + Valuation Method or Trigger + Delivery Type				
Example	HMMBVP				
Source	ISO 10962 (CFI) – Third edition 2015-07-15	;			
Source Attribute	Source Value	Derivation Method	Result		
Instrument Type	Others (miscellaneous)	Fixed Mapping	Н		
Asset Class	Other assets	Fixed Mapping	М		
Underlying Asset Type	Other	Fixed Mapping	М		
Option Style/Type	PUTO/AMER	Mapped to =>	Е		
	PUTO/BERM	Mapped to =>	F		

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	PUTO/EURO	Mapped to =>	D
	CALL/AMER	Mapped to =>	В
	CALL/BERM	Mapped to =>	С
	CALL/EURO	Mapped to =>	A
	OPTL/AMER	Mapped to =>	Н
	OPTL/BERM	Mapped to =>	I
	OPTL/EURO	Mapped to =>	G
	No input value	Mapped to =>	X
Valuation Method or Trigger	Vanilla	Mapped to =>	V
	Asian	Mapped to =>	A
	Digital (Binary)	Mapped to =>	D
	Barrier	Mapped to =>	В
	Digital Barrier	Mapped to =>	G
	Lookback	Mapped to =>	L
	Other Path Dependent	Mapped to =>	P
	Other	Mapped to =>	М
Delivery Type	Cash	Mapped to =>	С
	Physical	Mapped to =>	P
	Auction	Mapped to =>	A
	Elect at Exercise	Mapped to =>	Е
	Non-Deliverable	Mapped to =>	N

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4.2.2 Short Name

Attribute	Short Name					
Structure	"NA" + "/" + Instrument Type + Asset Cla	ass + Product Type				
Example	NA/O Oth Nstd					
Source	ISO 18774 (Financial Instrument Short Na	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	Non-listed and complex listed options	Fixed Abbreviation	0			
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

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	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	I I 339-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	SILVER-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

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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
	No input value	Mapped to =>	Not applicable/undefined

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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, Non-Deliverable] are the CFI 2015 values. Thus, CFI Delivery Type is no longer required as a derived value in the RECORD template.
- 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.

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6. Appendix I – 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	М	Asset Class	Asset Class
Instrument type	М	Instrument Type	Instrument Type
Currency associated with an underlying reference rate	С	Notional Currency	Notional Currency
Delivery type	М	Delivery Type	Delivery Type
Option style	М	Option Exercise Style	Option Exercise Style
			(CFI Option Style and Type)
Option type	М	Option Type	Option Type
			(CFI Option Style and Type)
Return, pricing method or payout trigger	М	Valuation Method or Trigger	Valuation Method or Trigger
Seniority	С	Debt Seniority	Debt Seniority
Settlement currency	С	Settlement Currency	Settlement Currency
Standard contract specification*	С	Not Required	Not Required
Underlier ID	С	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	С	Underlier ID Source	Not Required
Underlier type	M	Not Required	Underlying Asset Type
Underlier sub-type (first level)	С	Base Product	Base Product

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		Other Base Product	Other Base Product
Underlier sub-type (second level)	С	Sub Product	Sub Product
		Other Sub Product	Other Sub Product
Underlying credit index series	С	Underlying Credit Index Series	Underlying Credit Index Series
Underlying credit index version	С	Underlying Credit Index Version	Underlying Credit Index Version
Underlying rate index tenor period	С	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	С	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

^{*}Standard contract specification attribute is not included in the OTC ISIN and are Conditional attributes in ISO 4914 (UPI) specification.

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7. Appendix 2 - OTC ISIN-UPI Mapping

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

anyO f	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	Option	
	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	
Underly	ring 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	If Reference Rate = I = "Single Underlier"	Underlying Structure	Single Underlier	"One Of" Underlying Structure
		Rate = I	Map to	Underlier ID	EUR-EXT-CPI	
			Set to "FPML"	Underlier ID Source	FPML	

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anyO f	ISIN Input Attributes	Condition	Mapping Logic	UPI Input Attributes	Example UPI Value	Comments
		If Reference Rate > I	If Reference Rate > I = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure
	Reference Rate Term Value	If Reference Rate = I	Direct Map	Reference Rate Term Value	3	
		If Reference Rate > I	No Mapping			
	Reference Rate Term Unit	If Reference Rate = I	Direct Map	Reference Rate Term Unit	MNTH	
		If Reference Rate > I	No Mapping			
	Other Notional Currency		Direct Map	Other Notional Currency	GBP	
			If Reference Rate = I = "Single Underlier"	Underlying Structure	Single Underlier	"One Of" Underlying Structure
	Other Leg Reference Rate	If Reference Rate = I	Map to	Other Leg Underlier ID	GBP-LIBOR- BBA	
	Such Esg releasine rate		Set to "FPML"	Other Leg Underlier ID Source	FPML	
		If Reference Rate > I	If Reference Rate > I = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure
	Other Leg Reference Rate Term Value	If Reference Rate = I	Direct Map	Other Leg Reference Rate Term Value	3	
		If Reference Rate > I	No Mapping			
	Other Leg Reference Rate Term Unit	If Reference Rate = I	Direct Map	Other Leg Reference Rate Term Unit	MNTH	
		If Reference Rate > I	No Mapping			
Underly	ing Asset Class.Foreign Exchange					
	Notional Currency		Map to	Underlier ID	EUR	
	- Addonal Cult City		Set to "CCY"	Underlier ID Source	CCY	
	Other Notional Currency		Map to	Underlier ID	USD	
			Set to "CCY"	Underlier ID Source	CCY	

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anyO f	ISIN Input Attributes	Condition	Mapping Logic	UPI Input Attributes	Example UPI Value	Comments
	Settlement Currency		Direct Map	Settlement Currency	EUR	
	Place of Settlement		Direct Map	Place of Settlement	Hong Kong	
Underly	ring Asset Class.Credit					
			If Underlying Instrument ISIN = I = "Single Underlier"	Underlying Structure	Single Underlier	"One Of" Underlying Structure
		If Underlying Instrument ISIN = I	Set to "Fixed Income Security"	Underlier Type	Fixed Income Security	"One Of" Underlier Type
	Underlying Instrument ISIN		Map to	Underlier ID	US92857WBQ2 4	
			Set to "ISIN; FIGI; CUSIP; SEDOL"	Underlier ID Source	ISIN	
		If Underlying Instrument ISIN > I	If Underlying Instrument ISIN > I = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure
			If Underlying Instrument LEI = I = "Single Underlier"	Underlying Structure	Single Underlier	"One Of" Underlying Structure
		If Underlying Instrument LEI = I	Set to "Legal Entity"	Underlier Type	Legal Entity	"One Of" Underlier Type
	Underlying Instrument LEI		Map to	Underlier ID	INR2EJN1ERA N0W5ZP974	
			Set to "LEI"	Underlier ID Source	LEI	
		If Underlying Instrument LEI > I	If Underlying Instrument LEI > I = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure
			If Underlying Instrument Index Prop = I = "Single Underlier"	Underlying Structure	Single Underlier	"One Of" Underlying Structure
	Underlying Instrument Index Prop	If Underlying Instrument Index Prop =	Set to "Proprietary Index"	Underlier Type	Proprietary Index	"One Of" Underlier Type
			Map to	Underlier ID	I I 339- MLSREISU	
			Set to "PROP"	Underlier ID Source	PROP	

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anyO f	ISIN Input Attributes	Condition	Mapping Logic	UPI Input Attributes	Example UPI Value	Comments
		If Underlying Instrument Index Prop > I	If Underlying Instrument PROP > I = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure
			If Underlying Instrument Index = I = "Single Underlier"	Underlying Structure	Single Underlier	"One Of" Underlying Structure
		If Underlying Instrument Index = I	Set to "Credit Index"	Underlier Type	Credit Index	"One Of" Underlier Type
	Underlying Instrument Index		Map to	Underlier ID	ITRAXX EUROPE	
			Set to "CRIDX"	Underlier ID Source	CRIDX	
		If Underlying Instrument Index > I	If Underlying Instrument Index > I = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure
	Underlying Instrument Index Term Value	If Underlying Instrument Index = I	Direct Map	Underlying Instrument Index Term Value	7	
	Term Value	If Underlying Instrument Index > I	No Mapping			
	Underlying Instrument Index Term Unit	If Underlying Instrument Index = I	Direct Map	Underlying Instrument Index Term Unit	DAYS	
	Term Onit	If Underlying Instrument Index > I	No Mapping			
	Underlying Credit Index	If Underlying Instrument Index = I	Direct Map	Underlying Credit Index Series	3	
	Series	If Underlying Instrument Index > I	No Mapping			
	Underlying Credit Index Version	If Underlying Instrument Index = I	Direct Map	Underlying Credit Index Version	5	
		If Underlying Instrument Index > I	No Mapping			
	Debt Seniority		Direct Map	Debt Seniority	SNDB	

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anyO f	ISIN Input Attributes	Condition	Mapping Logic	UPI Input Attributes	Example UPI Value	Comments
Underly	ring Asset Class.Equity					
	Strike Price Type		No Mapping			
	Strike Price		No Mapping			
	Strike Price Currency		No Mapping			
			If Underlying Instrument ISIN = I = "Single Underlier"	Underlying Structure	Single Underlier	"One Of" Underlying Structure
		If Underlying Instrument	Set to "Equity Identifier"	Underlier Type	Equity Identifier	"One Of" Underlier Type
	Underlying Instrument ISIN	ISIN = I	Map to	Underlier ID	GB0001383545	
			Set to "ISIN; FIGI; CUSIP; SEDOL"	Underlier ID Source	ISIN	
		If Underlying Instrument ISIN > I	If Underlying Instrument ISIN > I = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure
			If Underlying Instrument Index = I = "Single Underlier"	Underlying Structure	Single Underlier	"One Of" Underlying Structure
	Lladouking lessures and ladou	If Underlying Instrument Index = I	Set to "Equity Index Name"	Underlier Type	Equity Index Name	"One Of" Underlier Type
	Underlying Instrument Index		Map to	Underlier ID	FTSE 200 Index	
			Set to "EQIDX"	Underlier ID Source	EQIDX	
		If Underlying Instrument Index > I	If Underlying Instrument Index > I = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure
			If Underlying Instrument Index Prop = I = "Single Underlier"	Underlying Structure	Single Underlier	"One Of" Underlying Structure
	Underlying Instrument Index Prop		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	

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anyO f	ISIN Input Attributes	Condition	Mapping Logic	UPI Input Attributes	Example UPI Value	Comments				
		If Underlying Instrument Index Prop >	If Underlying Instrument PROP > I = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure				
Underlying Asset Class.Commodities										
	Notional Currency		Direct Map	Notional Currency	USD					
	Underlying Instrument Index	If Underlying Instrument Index = I	If Underlying Instrument Index = I = "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 > I	If Underlying Instrument Index > I = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure				
	Underlying Instrument Index Prop	If Underlying Instrument Index Prop = I	If Underlying Instrument Index Prop = I = "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	II339- BABXSG0I					
			Set to "PROP"	Underlier ID Source	PROP					
		If Underlying Instrument Index Prop >	If Underlying Instrument PROP > I = "Basket"	Underlying Structure	Basket	"One Of" Underlying Structure				
	Reference Rate	If Reference Rate = I	If Reference Rate = I = "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	SILVER-FIX					
			Set to "COMM"	Underlier ID Source	COMM					

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anyO f	ISIN Input Attributes	Condition	Mapping Logic	UPI Input Attributes	Example UPI Value	Comments
		If Reference Rate > I	If Reference Rate > I = "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	SLVR	
	Transaction Type		No Mapping			
	Final Price Type		No Mapping			

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