



Derivatives Service Bureau

Commodities : Swap : Single_Index

UPI Product Definition

Version 3

Date	Status	Version	Revision Details
30 Aug 2022	Draft	1	Initial Version
02 Feb 2023	Draft	2	<ul style="list-style-type: none">• Update example values in the Request and Record templates layout• Insert Underlier Name attribute and Derivation rules
07 Sep 2023	Draft	3	<ul style="list-style-type: none">• Remove “Classified as Confidential” in the Footer section.• 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) – Third edition 2015-07-15

Attr #	Title	Values	Name	Description
	Instrument (Category)	S	Swap	
	Asset Class (Group)	T	Commodities	
Attr #1	Underlying Assets	I	Index	A swap where the underlying reference entity is a commodity index
Attr #2	Return or payout trigger	C	Contract for difference (CFD)	A cash settled total return swap or forward where the parties agree to exchange on the maturity of the contract the difference between the opening price and closing price of the underlying
		T	Total return	The total economic return of an underlying asset is transferred from one party (total return buyer) to another (total return seller); total return seller takes on the risk of negative changes in market value of the reference asset, and pays any positive cash flow to the buyer such as coupon, capital gains or dividends of the reference asset
Attr #3	Not applicable/undefined	X	Not applicable/undefined	Not applicable/undefined
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 settlement	Determine at the time of settlement

2.2 ISDA Taxonomy

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

Node 1 Asset Class	Node 2 Transaction Type	Node 3 Settlement Type*	Node 4 and/or Node 7 Commodity
Commodity	Swap	Cash	Agricultural Products
		Physical	Composite Commodity Indices
			Energy
			Freight
			Metals
			Paper
			Plastic
			<i>Composite Commodity Indices</i>
			<i>Other</i>

**There is no exact match in the ISDA Taxonomy 2.0 for this product template. The current taxonomy 2.0 only provides for Settlement values [Cash, Physical] and Commodity values [Agricultural Products, Composite Commodity Indices, Energy, Freight, Metals, Paper, Plastic, Composite Commodity Indices, Other]. This product template is a catch all for products that fall outside of these specified Settlement Type [Node 3] and Commodity {Node 4 and/or Node 7}.*

3 REQUEST TEMPLATE

This section describes the input message received by the UPI service.

Template name	Template details	Release
Request.Commodities.Swap.Single_Index.UPI.json	Initial version	Initial

Section	Attribute	Format	Cat	Example Value	Validation / Derivation
Header Section	Asset Class	Set	M	Commodities	
	Instrument Type	Set	M	Swap	
	Product	Set	M	Single_Index	
	Level	Set	M	UPI	
Attribute Section	Underlier Type (oneOf)	Object	M	Commodity Index	
	Underlier ID Source	String	(M)	COIDX	[COIDX]
	Underlier ID	Enum	(M)	OTHER	Enumerated List
	Underlier Type (oneOf)	Object	M	Proprietary Index	
	Underlier ID Source	String	(M)	PROP	[PROP]
	Underlier ID	String	(M)	11339-BABXSG01	See Validation Rules
	Base Product	Enum	M	METL	[AGRI, NRGY, ENVR, FRGT, etc.]
	Return or Payout Trigger	Enum	M	Contract for Difference (CFD)	[Contract for Difference (CFD), Total Return]
	Delivery Type	Enum	M	CASH	[CASH, PHYS, OPTL]

3.1 Underlier Input Method

This product supports the entry of Commodity Index or Proprietary Index as an underlier type.

Title	Description
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. <ul style="list-style-type: none"> Commodity Index [COIDX] Proprietary Index [PROP]
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](#).

4 RECORD TEMPLATE

This section describes the record returned by the UPI service.

Version	Template name	Template details	Release
V.1	Commodities.Swap.Single_Index.UPI.V1.json	Initial version	Initial

Section	Attribute	Format	Cat	Example Value	Derivation
Header Section	Asset Class	Set	M	Commodities	
	Instrument Type	Set	M	Swap	
	Product	Set	M	Single_Index	
	Level	Set	M	UPI	
	Template Version	Integer	D	1	
Attribute Section	Underlying Instrument Index	String	C	OTHER	Enumerated List
	Underlying Instrument Index Prop	String	C	11339-BABXSG01	See Validation Rules
	Base Product	Enum	M	METL	[AGRI, NRGY, ENVR, FRGT, etc.]
	Return or Payout Trigger	Enum	M	Contract for Difference (CFD)	[Contract for Difference (CFD), Total Return]
Identifier Section	Delivery Type	Enum	M	CASH	[CASH, PHYS, OPTL]
	UPI	String	D	QZWCRQ4NJBKT	
	Status	String	D	New	[New; Updated; Deleted; Deprecated]
	Status Reason	String	D	<null>	
Derived Section	Last Update Date Time	DtTm	D	2021-05-11T03:55:52	YYYY-MM-DDThh:mm:ss
	Classification Type	String	D	STICXC	See Derivation Rules
	Short Name	String	D	NA/Swap METL	See Derivation Rules
	Underlier Name	String	D	OTHER	See Derivation Rules
	Underlying Asset type	String	D	Index	Fixed value
	CFI Delivery Type	String	D	[Cash, Physical, Elect at settlement]	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 + Return or Payout Trigger + NA + Delivery Type		
Example	STICXC		
Source	ISO 10962 (CFI) – Third edition 2015-07-15		
Source Attribute	Source Value	Derivation Method	Result
Instrument Type	Swap	Fixed Mapping	S
Asset Class	Commodities	Fixed Mapping	T
Underlying Asset Type	Index	Fixed Mapping	I
Return or Payout Trigger	Contract for difference (CFD)	Mapped to =>	C
	Total return	Mapped to =>	T
Not applicable/undefined	Not applicable/undefined	Fixed Mapping	X
Delivery Type	CASH	Mapped to =>	C
	PHYS	Mapped to =>	P
	OPTL	Mapped to =>	E

4.2.2 Short Name

Attribute		Short Name	
Structure	"NA" + "/" + Instrument Type + Base Product		
Example	NA/Swap METL		
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	Swap	Fixed Abbreviation	Swap
Base Product	AGRI	Mapped to =>	AGRI
	NRGY	Mapped to =>	NRGY
	ENVR	Mapped to =>	ENVR
	FRGT	Mapped to =>	FRGT
	FRTL	Mapped to =>	FRTL
	INDP	Mapped to =>	INDP
	INFL	Mapped to =>	INFL
	OEST	Mapped to =>	OEST
	METL	Mapped to =>	METL
	PAPR	Mapped to =>	PAPR
	POLY	Mapped to =>	POLY
	OTHC	Mapped to =>	OTHC
OTHR	Mapped to =>	OTHR	

4.2.3 Underlier Name

Attribute		Underlier Name	
Underlying Asset	Underlier Name Source	Underlier Name Source Attribute	Underlier Name
Underlying Index	UPI Record	Underlying Instrument Index	OTHER
Underlying Index Prop	UPI Record	Underlying Instrument Index Prop	11339-BABXSG01

4.2.4 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 Settlement

5 SUPPLEMENTARY INFORMATION

5.1 Best Practice Guidelines

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

5.2 Additional Comments

- The short name abbreviation for Instrument Type within the Equity Asset Class is “Swaps” whereas Rates and Commodities Asset Classes uses “Swap”.
- There is no existing reference data that will support the validation of Underlying Instrument Index.

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
Return, pricing method or payout trigger	M	Return or Payout Trigger	Return or Payout Trigger
Underlier ID	C	Underlier ID	Underlying Instrument Index
			Underlying Instrument Index Prop
Underlier ID source	C	Underlier ID Source	Not Required
Underlier type	M	Base Product	Base Product
Underlier sub-type (first level)*	M	Not Required	Underlying Asset Type
Underlier sub-type (second level)**	C	Not Required	Not Required

*Underlying Asset Type will be used as the Underlier sub-type (first level) for this product.

**Underlier sub-type (second level) does not apply for this product as the underlying is an Index, so this attribute is not required.

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 Values	Comments
	Asset Class	Direct Map	Asset Class	Commodities	
	Instrument Type	Direct Map	Instrument Type	Swap	
	Use Case	Direct Map	Product	Single_Index	
	Level	Set to "UPI"	Level	UPI	
	Notional Currency	No Mapping			
	Expiry Date	No Mapping			
	Base Product	Direct Map	Base Product	METL	
A	Underlying Instrument Index	Set to "Commodity Index"	Underlier Type	Commodity Index	"oneOf" Underlier Type
		Map to	Underlier ID	OTHER	
		Set to "COIDX "	Underlier ID Source	COIDX	
B	Underlying Instrument Index Prop	Set to "Proprietary Index"	Underlier Type	Proprietary Index	"oneOf" Underlier Type
		Map to	Underlier ID	11339-BABXSG01	
		Set to "PROP"	Underlier ID Source	PROP	
	Return or Payout Trigger	Direct Map	Return or Payout Trigger	Contract for Difference (CFD)	
	Delivery Type	Direct Map	Delivery Type	CASH	
	Transaction Type	No Mapping			
	Final Price Type	No Mapping			
	Price Multiplier	No Mapping			