Derivatives Service Bureau

Equity : Swap : Portfolio_Swap

UPI Product Definition

Version 3

Date	Status	Version	Revision Details
16 Aug 2022	Draft	1	Initial Version
30 Jan 2023	Draft	2	Insert Underlier Name attribute and Derivation rules
04 Sep 2023	Draft	3	• 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.

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)	**S**	Swap	
	Asset Class (Group)	**E**	Equity	
Attr #1	**Underlying Assets**	**B**	Basket	A bespoke, synthetic portfolio of underlying assets whose components have been agreed for a specific over-thecounter (OTC) derivative by the parties to the transaction
Attr #2	**Return or payout trigger**	**P**	Price	Price return equity swap, similar to a total return swap, except that dividends are not passed through to the buyer
		D	Dividend	A fixed-term contract between two parties where one party will make an interest rate payment for each interval and the other party will pay the total dividends received as pay-out by a selected underlying asset
		V	Variance	A forward swap that uses the variance (being the volatility squared) of an underlying's price movement over a period as the basis for the payoff calculation
		L	Volatility	The variability of movements in a security or underlying instrument's price; it is a measure of the amount by which an asset's price is expected to fluctuate over a given period of time; it is normally measured by the annual standard deviation of daily price changes
		T	Total Return	Total return
		C	Contract For Difference	Contract for difference
		M	Others	Miscellaneous
Attr #3	**Not applicable/undefined**	**X**	Not applicable/ undefined	Not applicable/undefined
Attr #4	**Delivery Type**	**C**	Cash	Cash
		P	Physical	Physical
		E	Elect at Settlement	Elect at Settlement

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
Equity	Portfolio Swap	Price Return Basic Performance*	Basket*	Portfolio_Swap

**There is no exact match in the ISDA Taxonomy 2.0 for this product template. The current taxonomy 2.0 only provides for Sub-Product value [Price Return Basic Performance] and Transaction Type values [Single Name, Single Index, Basket]. This product template is a catch all for products that fall outside of these specified transaction types.*

3 REQUEST TEMPLATE

This section describes the input message received by UPI service.

Template name	Template details	Release
Request.Equity.Swap.Portfolio_Swap.UPI.json	Initial version	Initial

Section	Attribute	Format	Cat	Example Value	Validation
Header Section	Asset Class	Set	M	Equity	
	Instrument Type	Set	M	Swap	
	Product	Set	M	Portfolio_Swap	
	Level	Set	M	UPI	
Attribute Section	Return or Payout Trigger	Enum	M	Total Return	[Price, Dividend, Total Return, Other, etc.]
	Delivery Type	Enum	M	CASH	[CASH, PHYS, OPTL]

3.1 Underlier Input Method

This product is assumed to be a "Basket" in all cases, hence in accordance with ISO 4914 (UPI), there is no need to define individual constituents within this template *(see Appendix 1 - ISO 4914 Equivalence)* and so Underlier Input Method does not apply for this product.

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	**Equity.Swap.Portfolio_Swap.UPI.V1.json**	Initial version	Initial

Section	Attribute	Format	Cat	Example Value	Derivation
Header Section	Asset Class	Set	M	Equity	
	Instrument Type	Set	M	Swap	
	Product	Set	M	Portfolio_Swap	
	Level	Set	M	UPI	
	Template Version	Integer	D	1	
Attribute Section	Return or Payout Trigger	Enum	M	Total Return	[Price, Dividend, Total Return, etc.]
	Delivery Type	Enum	M	CASH	[CASH, PHYS, OPTL]
Identifier Section	UPI	String	D	QZ4DBTSR1C4J	
	Status	String	D	New	[New; Updated; Deleted; Deprecated]
	Status Reason	String	D	<null>	
	Last Update Date Time	DtTm	D	2021-05-11T08:04:01	YYYY-MM-DDThh:mm:ss
Derived Section	Classification Type	String	D	SEBTXC	See Derivation Rules
	Short Name	String	D	NA/Swaps Bskt Tot Rtn	See Derivation Rules
	Underlier Name	String	D	Basket	See Derivation Rules
	Underlying Asset type	String	D	Basket	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	SEBTXC		
Source	ISO 10962 (CFI) – Third edition 2015-07-15		
Source Attribute	**Source Value**	**Derivation Method**	**Result**
Instrument Type	Swap	Fixed Mapping	S
Asset Class	Equity	Fixed Mapping	E
Underlying Asset Type	Basket	Fixed Mapping	B
Return or Payout Trigger	Price	Mapped to =>	P
	Dividend	Mapped to =>	D
	Variance	Mapped to =>	V
	Volatility	Mapped to =>	L
	Total Return	Mapped to =>	T
	Contract for Difference (CFD)	Mapped to =>	C
	Other	Mapped to =>	M
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 + Underlying Asset Type + Return or Payout Trigger		
Example	NA/Swaps Bskt Tot Rtn		
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	Swaps
Underlying Asset Type	Basket	Fixed Abbreviation	Bskt
Return or Payout Trigger	Price	Mapped to =>	Pr
	Dividend	Mapped to =>	Div
	Variance	Mapped to =>	Var
	Volatility	Mapped to =>	Vol
	Total Return	Mapped to =>	Tot Rtn
	Contract for Difference (CFD)	Mapped to =>	CFD
	Other	Mapped to =>	Oth

4.2.3 Underlier Name

Attribute	Underlier Name		
Underlying Asset	**Underlier Name Source**	**Underlier Name Source Attribute**	**Underlier Name**
Basket	Constant	N/A	Basket

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 Asset Class uses “Swap”.

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	Not Required	
Underlier ID source*	C	Not Required	
Underlier type	M	Not Required	Underlying Asset Type

**Underlier ID/source are not required for a custom basket defined in the ISO 4914 (UPI) specification.*

7 Appendix 2 - OTC ISIN-UPI Mapping

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

ISIN Input Attributes	Mapping Logic	UPI Input Attributes	Example UPI Value	Comments
Asset Class	Direct Map	Asset Class	Equity	
Instrument Type	Direct Map	Instrument Type	Swap	
Use Case	Direct Map	Product	Portfolio_Swap	
Level	Set to "UPI"	Level	UPI	
Notional Currency	No Mapping			
Expiry Date	No Mapping			
Underlying Instrument ISIN	No Mapping			
Underlying Instrument Index	No Mapping			
Underlying Instrument Index Prop	No Mapping			
Return or Payout Trigger	Direct Map	Return or Payout Trigger	Total Return	
Price Multiplier	No Mapping			
Delivery Type	Direct Map	Delivery Type	CASH	