

DERIVATIVES SERVICE BUREAU (DSB) LTD

Equity : Swap : Portfolio_Swap_Other

UPI Product Definition

Version 3

| Date | Status | Version | Revision Details |
|-------------|--------|---------|--|
| 16 Aug 2022 | Draft | 1 | Initial Version |
| 26 Jan 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 |
| 04 Sep 2023 | Draft | 3 | <ul style="list-style-type: none"> Remove “Classified as Confidential” in the Footer section. Remove “RIC” as Alternate Underlier ID Source. Update Associated Documentation to include Best Practice Guidelines and FAQs. Update Best Practice Guidelines to include the link to Best Practice Guidelines and FAQs. |

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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.1 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 | Other Documents section |
| 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. | |
| 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 | |

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 | M | Others | Miscellaneous |
| 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 | | Portfolio_Swap_Other |

**There is no exact match in the ISDA Taxonomy 2.0 for this product template. The current taxonomy 2.0 only provides for 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

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

Users can find the detailed description of this template in the Equity spreadsheet that contains the layout of all templates. This can be found in the Equity 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.Equity.Swap.Portfolio_Swap_Other.UPI.json | Initial version | Initial |

3.1 Underlier Input Method

For products that have a Single Underlier, user has an option to select a Primary or Alternate Underlier, if available.

| Title | Description |
|-----------------------------------|---|
| Select Underlier ID Source | User is able to select a Primary or Alternate Underlier from the available options. <ul style="list-style-type: none">• ISIN• FIGI• CUSIP• SEDOL |
| 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

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

Users can find the detailed description of this template in the Equity spreadsheet that contains the layout of all templates. This can be found in the Equity 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 | Release |
|---------|--|------------------|---------|
| V.1 | Equity.Swap.Portfolio_Swap_Other.UPI.V1.json | Initial version | Initial |

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 | SEMTXP | | |
| 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 | Other | Fixed Mapping | M |
| 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 Oth 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 | Other | Fixed Abbreviation | Oth |
| 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 |
| Underlying ID with Underlying ID Source [ISIN; FIGI; CUSIP; SEDOL] | ISIN Reference Data | longName of Underlying Instrument ISIN | VODAFONE GROUP PLC |

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 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 | 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 ISIN |
| Underlier ID source | C | Underlier ID Source | Not Required |
| Underlier type | M | Not Required | Underlying Asset Type |

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_Other | |
| Level | Set to "UPI" | Level | UPI | |
| Notional Currency | No Mapping | | | |
| Expiry Date | No Mapping | | | |
| Underlying Instrument ISIN | Map to | Underlier ID | GB00BH4HKS39 | |
| | Set to "ISIN, FIGI, CUSIP, SEDOL" | Underlier ID Source | ISIN | |
| Return or Payout Trigger | Direct Map | Return or Payout Trigger | Total Return | |
| Delivery Type | Direct Map | Delivery Type | PHYS | |
| Price Multiplier | No Mapping | | | |