



Derivatives Service Bureau

Rates : Forward : Debt

UPI Product Definition

Version 4

| Date | Status | Version | Revision Details |
|-------------|--------|---------|--|
| 05 Sep 2022 | Draft | 1 | Initial Version |
| 24 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 |
| 28 Feb 2023 | Draft | 3 | <ul style="list-style-type: none"> Update Request and Record templates layout to include Spreadbets as enumerated value of Return or Payout Trigger attribute |
| 01 Sep 2023 | Draft | 4 | <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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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) | J | Forwards | |
| | Asset Class (Group) | R | Rates | |
| Attr #1 | Underlying Assets | M | Others | Others (miscellaneous) |
| Attr #2 | Not applicable/undefined | X | Not applicable/undefined | Not applicable/undefined |
| Attr #3 | Return or payout trigger | F | Forward price of underlying instrument | Forward price of underlying instrument |
| | | S | Spread-bet | The payout is determined by the movement in the reference price of the underlying instrument to its price at expiry (or the price when the holder wishes to close out) multiplied by an agreed amount per point movement |
| 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 |

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 |
|---------------|--------------|-------------|------------------|-----------------------------|
| Interest Rate | Forward | Debt | | Debt Forward |

3 REQUEST TEMPLATE

This section describes the input message received by UPI service.

| Template name | Template details | Release |
|-------------------------------------|------------------|---------|
| Request.Rates.Forward.Debt.UPI.json | Initial version | Initial |

| Section | Attribute | Format | Cat | Example Value | Validation |
|-------------------|-------------------------------------|--------|-----|--|--|
| Header Section | Asset Class | Set | M | Rates | |
| | Instrument Type | Set | M | Forward | |
| | Product | Set | M | Debt | |
| | Level | Set | M | UPI | |
| Attribute Section | Underlying Structure (oneOf) | Object | (M) | Single Underlier | See Validation Rules |
| | Underlier ID Source | Enum | (M) | ISIN | [ISIN, FIGI, CUSIP, SEDOL] |
| | Underlier ID | String | (M) | US92857WBQ24 | Syntactic Validation |
| | Underlying Structure (oneOf) | Object | (M) | Basket | See Validation Rules |
| | Notional Currency | Enum | M | EUR | Enumerated List |
| | Return or Payout Trigger | Enum | M | Forward price of underlying instrument | [Spreadbets; Forward price of underlying instrument] |
| | Delivery Type | Enum | M | PHYS | [CASH, PHYS] |

3.1 Underlier Input Method

For products that has an option for a single or multiple underliers, users must select an Underlying Structure applicable [Single Underlier, Basket]. If a Basket is selected, underlier entry is not required.

| Title | Description |
|------------------------------------|---|
| Select Underlying Structure | User is able to select whether the underlying is a single underlier or basket based on its product. <ul style="list-style-type: none"> Single Underlier Basket |
| Select Underlier ID Source | User is able to select a single required Underlier ID Source 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](#).

3.2.1 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] 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.

4 RECORD TEMPLATE

This section describes the record returned by the UPI service.

| Version | Template name | Template details | Release |
|---------|--------------------------------|------------------|---------|
| V.1 | Rates.Forward.Debt.UPI.V1.json | Initial version | Initial |

| Section | Attribute | Format | Cat | Example Value | Derivation |
|--------------------|----------------------------|---------|-----|--|--|
| Header Section | Asset Class | Set | M | Rates | |
| | Instrument Type | Set | M | Forward | |
| | Product | Set | M | Debt | |
| | Level | Set | M | UPI | |
| | Template Version | Integer | D | 1 | |
| Attribute Section | Underlier Characteristic | Enum | M | Single | [Single, Basket] |
| | Notional Currency | Enum | M | EUR | Enumerated List |
| | Underlying Instrument ISIN | String | C | US92857WBQ24 | Syntactic Validation |
| | Return or Payout Trigger | Enum | M | Forward price of underlying instrument | [Spreadbets; Forward price of underlying instrument] |
| | Delivery Type | Enum | M | PHYS | [CASH, PHYS] |
| Identifier Section | UPI | String | D | QZ92PHD32T52 | |
| | Status | String | D | New | [New; Updated; Deleted; Deprecated] |
| | 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 | JRMXFP | See Derivation Rules |
| | Short Name | String | D | NA/Fwd Dbt Oth EUR | See Derivation Rules |
| | Underlier Name | String | D | VODAFONE GROUP PLC | See Derivation Rules |
| | Underlying Asset Type | String | D | Other | Fixed value |
| | CFI Delivery Type | String | D | [Cash, Physical] | 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 + NA + Return or Payout Trigger + Delivery Type | | |
| Example | JRMXFP | | |
| Source | ISO 10962 (CFI) – Third edition 2015-07-15 | | |
| Source Attribute | Source Value | Derivation Method | Result |
| Instrument Type | Forwards | Fixed Mapping | J |
| Asset Class | Rates | Fixed Mapping | R |
| Underlying Asset Type | Other | Fixed Mapping | M |
| Not applicable/undefined | Not applicable/undefined | Fixed Mapping | X |
| Return or Payout Trigger | Forward price of underlying instrument | Fixed Mapping | F |
| | Spreadbets | Fixed Mapping | S |
| Delivery Type | CASH | Mapped to => | C |
| | PHYS | Mapped to => | P |

4.2.2 Short Name

| Attribute | | Short Name | |
|------------------------------|---|--------------------|---------------------|
| Structure | "NA" + "/" + Instrument Type + Product Type + Underlying Asset Type + Notional Currency | | |
| Example | NA/Fwd Dbt Oth EUR | | |
| 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 | Forward | Fixed Abbreviation | Fwd |
| Product Type | Debt | Fixed Abbreviation | Dbt |
| Underlying Asset Type | Other | Fixed Abbreviation | Oth |
| Notional Currency | Notional Currency | Mapped Enumeration | e.g., USD, EUR, GBP |

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 | ISIN is found in ISIN Reference Data. | VODAFONE GROUP PLC |
| | | | ISIN is found in ISIN Reference Data, but its description is missing. | No name available |
| | | | ISIN is not found in ISIN Reference Data. | No name obtainable |
| 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 |

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

No Additional Comments is provided 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 | M | Notional Currency | Notional Currency |
| 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 |
| Underlying rate index tenor period* | C | Not Required | Not Required |
| Underlying rate index tenor period multiplier* | C | Not Required | Not Required |

**Underlying rate index tenor period/multiplier applies only if the underlying is a Reference Rate (Index). For this product, the underlying is assumed to be a Debt Instrument [ISIN, FIGI, CUSIP, SEDOL] and so these attributes are not required.*

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 | Rates | |
| Instrument Type | | Direct Map | Instrument Type | Forward | |
| Use Case | | Direct Map | Product | Debt | |
| Level | | Set to "UPI" | Level | UPI | |
| Notional Currency | | Direct Map | Notional Currency | EUR | |
| Expiry Date | | No Mapping | | | |
| Price Multiplier | | No Mapping | | | |
| Underlying Instrument ISIN | If Underlying Instrument = 1 | Map to | Underlier ID | US92857WBQ24 | |
| | | Set to "ISIN, FIGI, CUSIP, SEDOL " | Underlier ID Source | ISIN | |
| | If Underlying Instrument > 1 | Map to | Underlying Structure | Basket | |
| Return or Payout Trigger | | Direct Map | Return or Payout Trigger | Forward price of underlying instrument | |
| Delivery Type | | Direct Map | Delivery Type | PHYS | |