**Derivatives Service Bureau (UPI)**

# CHANGE REQUEST FORM

| Version | State | Author | Date | Description |
|---|---|---|---|---|
| 1 | Draft | J. Lim | 22 Apr 2021 | Initial Document |
| 2 | Draft | J. Lim | 21 Jul 2021 | Updated attribute data dictionary and reference |

| Title | RATES OPTION Inflation CapFloor Template Definition | | |
|---|---|---|---|
| **Background** | The following CRF presents a specification for the generation and retrieval of a Unique Product Identifier for the following product:<br><br>• **Rates : Option : Inflation_CapFloor** | **DSB-ID** | **UPI-0213** |
| | | **Type** | New Template |
| | | **Owner** | J.Lim |
| | | **Version** | 2 |
| | | **State** | Draft |
| **Terms of Reference** | | | |
| **Scope** | • This CRF specifies the product definition required for the generation / retrieval of a UPI only.<br>• This CRF covers both the input (Request) and output (Record) templates.<br>• Support for local jurisdiction / alternate underlier identifier input is currently out of scope.<br>• Support for CFI 2019 values is currently out of scope. | | |
| **Requirements** | • The product definition will conform to ISO 4914 (UPI).<br>• Where possible, the product definition is to be based on the attributes, values and behaviour of the equivalent OTC ISIN.<br>• The product definition will return a product short name (FISN).<br>• All UPI records stored on the DSB RDL will include the ISO 10962 (CFI) code associated with the UPI along with an equivalent text value for all attributes that are included in the definition of the CFI. | | |
| **Dependencies** | • This specification is dependent on final sign-off of the ISO 4914 (UPI) specification.<br>• This specification is dependent on PC approval for the use of the OTC ISIN definitions as a basis for the UPI.<br>• This specification is dependent on PC approval for the inclusion of ISO 4914 (UPI) conditional attributes.<br>• This specification is dependent on TAC Approval for the DSB approach to ISO 10962 (CFI:2019) migration.<br>• This specification is dependent on the provision of a human-readable alias for the primary underlier for inclusion in the Short Name (FISN) and a human-readable alias for the Contract Specification.<br>• The format of the Short Name is dependent upon the outcome of the ISO 18774 (FISN) systematic review. | | |
| **Assumptions** | • This specification assumes that, unless stated, all values and behaviours are based on those of the equivalent OTC ISIN product definition.<br>• This specification assumes that no input values are to be defaulted by the system.<br>• This specification is based on the current ISO 4914 (UPI) specification (CD) – including attributes that are not currently supported by the equivalent OTC ISIN.<br>• This specification is based on the DSB's current equivalent OTC ISIN product definition.<br>• This specification is based on the attributes and values defined in ISO 10962 (CFI:2015).<br>• In order to provide an example Short Name, this specification defines a format for this attribute that may not conform to the eventually agreed FISN format for the UPI. This specification assumes that the Short Name is defined using the same attributes (where available) as the OTC ISIN Short Name.<br>• Where possible, this specification derives GUI details from the ISO 4914 (UPI) specification for attributes that are not included in the current OTC ISIN product definition.<br>• The display information in the GUI for the existing attributes (and values) are taken from the OTC ISIN. If such information contains an "ISIN" in the description, replace the value into "UPI".<br>• The specification for UPI does not include expiry date as part of the attributes, hence "expired" status does not apply. | | |

**Request Template Layout**

| Section | Attribute | Format | Cat | Example Value | Validation / Derivation | Enum Source | ORIGIN |
|---|---|---|---|---|---|---|---|
| Header Section | Asset Class | Set | M | Rates | | CFI:2015 Char#2 | ISIN |
| | Instrument Type | Set | M | Option | | CFI 2015 Char#1 | ISIN |
| | Product | Set | M | Inflation_CapFloor | | | ISIN |
| | Level | Set | M | UPI | | | NEW |
| Attribute Section | Underlier ID | Enum | M | EUR-AI-CPI | FpmlRatesInflationRate.json | Fpml Coding Scheme 5.108 | NEW |
| | Underlier ID Source | String | M | FPML | [FPML] | internal | NEW |
| | Underlying Instrument Index Term Value | Integer | M | 2 | -999 to 999 (excluding 0) | | ISIN |
| | Underlying Instrument Index Term Unit | Enum | M | MNTH | [DAYS, WEEK, MNTH, YEAR] | ISO 20022 | ISIN |
| | Notional Currency | Enum | M | EUR | ISOCurrencyCode.json | ISO 4217 (3-Char CCY) | ISIN |
| | Option Type | Enum | M | CALL | [CALL; PUTO; OPTL] | ISO 20022 | ISIN |
| | Delivery Type | Enum | M | CASH | [CASH; PHYS; OPTL] | ISO 20022 | ISIN |

**Record Template Layout**

| Section | Attribute | Format | Cat | Example Value | Validation / Derivation | Enum Source | ORIGIN |
|---|---|---|---|---|---|---|---|
| Header Section | Asset Class | Set | M | Rates | | CFI:2015 Char#2 | ISIN |
| | Instrument Type | Set | M | Option | | CFI 2015 Char#1 | ISIN |
| | Product | Set | M | Inflation_CapFloor | | | ISIN |
| | Level | Set | M | UPI | | | NEW |
| | Template Version | Integer | D | 1 | | | ISIN |
| Attribute Section | Underlying Instrument Index | Enum | M | EUR-AI-CPI | FpmlRatesInflationRate.json | Fpml Coding Scheme 5.108 | ISIN |
| | Underlying Instrument Index Term Value | Integer | M | 2 | -999 to 999 (excluding 0) | | ISIN |
| | Underlying Instrument Index Term Unit | Enum | M | MNTH | [DAYS, WEEK, MNTH, YEAR] | ISO 20022 | ISIN |
| | Notional Currency | Enum | M | EUR | ISOCurrencyCode.json | ISO 4217 (3-Char CCY) | ISIN |
| | Option Type | Enum | M | CALL | [CALL; PUTO; OPTL] | ISO 20022 | ISIN |
| | Delivery Type | Enum | M | CASH | [CASH; PHYS; OPTL] | ISO 20022 | ISIN |
| Identifier Section | UPI | String | D | QZGL4LJPH522 | See UPI Document (UPI Code structure and Annex C) | ISO 4914 | NEW |
| | Status | String | D | New | | | ISIN |
| | Status Reason | String | D | <null> | Not applicable to a New record | | ISIN |
| | Last Update Date Time | DdTm | D | 2021-02-23T00:00:13 | YYYY-MM-DDThh:mm:ss | | ISIN |
| Derived Section | Classification Type | String | D | HRGAMC | See CRF (Derivations) | ISO 10962:2015 | ISIN |
| | Short Name | String | D | NA/O Call Epn EUR | See CRF (Derivations) | ISO 18774: 2015 | NEW |
| | Underlying Asset Type | String | D | Inflation Rate Index | Fixed value | CFI:2015 Char#3 (HRG***) | ISIN |
| | Option Exercise Style | String | D | EURO | Fixed value | ISO 20022 | ISIN |
| | Valuation Method or Trigger | String | D | Other | Fixed value | CFI:2015 Char#5 (HR**M*) | ISIN |
| | CFI Option Style and Type | String | D | European-Call | See CRF (Derivations) | CFI:2015 Char#4 (HR****) | NEW |
| | CFI Delivery Type | String | D | Cash | See CRF (Derivations) | CFI:2015 Char#6 (HR****) | NEW |

| **Product Definition** | |
|---|---|
| **Attributes** | See Template Layout (above). |
| **Validation** | See Template Layout (above). |
| **Attribute Data Dictionary** | This section provides the exact reference or source of the attribute. |

| Full Name | Source | Type |
|---|---|---|
| Notional Currency | ISO 4217 Currency Codes | Pattern: [A-Z]{3,3} |
| Delivery Type | ISO 20022 FinancialInstrumentReportingReferenceDataReportV01 | Enums *[CASH; PHYS; OPTL]* |
| CFI Delivery Type | ISO 10962 Classification of financial instruments (CFI code) | Enums *[Cash; Physical; Elect at Exercise]* |
| Option Type | ISO 20022 FinancialInstrumentReportingReferenceDataReportV01 | Enums *[CALL; PUTO; OPTL]* |
| Underlying Instrument Index | FpML Coding Schemes | Max25Text (based on string)<br>minLength: 1<br>maxLength: 25 |

<table>
<tr><td rowspan="2"></td><td>Underlying Instrument Index Term Value</td><td>Integer – Positive or negative but not 0</td><td>Max3Number (based on decimal)<br>fractionDigits: 0<br>totalDigits: 3</td></tr>
<tr><td>Underlying Instrument Index Term Unit</td><td>ISO 20022 FinancialInstrumentReportingReferenceDataReportV01</td><td>Max35Text (based on string)<br>minLength: 1 maxLength: 35</td></tr>
<tr><td>Normalization</td><td colspan="3">

1. **Underlying Instrument Index Term Value and Underlying Instrument Index Term Unit**

- If Underlying Instrument Index Term Unit = “DAYS” and Underlying Instrument Index Term Value is divisible by 7, record it in weeks

| | | | | |
|---|---|---|---|---|
| Underlying Instrument Index Term Value | 7 | → | Underlying Instrument Index Term Value | 1 |
| Underlying Instrument Index Term Unit | DAYS | | Underlying Instrument Index Term Unit | WEEK |

- If Underlying Instrument Index Term Unit = “MNTH” and Underlying Instrument Index Term Value is divisible by 12, record it in years

| | | | | |
|---|---|---|---|---|
| Underlying Instrument Index Term Value | 12 | → | Underlying Instrument Index Term Value | 1 |
| Underlying Instrument Index Term Unit | MNTH | | Underlying Instrument Index Term Unit | YEAR |

</td></tr>
<tr><td rowspan="5">Derivation</td><td colspan="3">This section provides additional details to the derivation logic specified in the Template Layout sections (above).</td></tr>
<tr><td>Classification Type</td><td colspan="2">

Concatenation of the following attributes/values:

- Instrument Type: “H”
- Asset Class: “R”
- Underlying Asset Type: “G”
- Option Type/Style: from Request.OptionType and Request. OptionExercise Style…
  - *PUTO/EURO →* *D*
  - *CALL/EURO →* *A*
  - *OPTL/EURO →* *G*
- Valuation Method or Trigger: “M”
- Delivery Type: from Request.DeliveryType…
  - *CASH →* *C*
  - *PHYS →* *P*
  - *OPTL→* *E*

E.g.: “HRGAMC”

</td></tr>
<tr><td>Short Name</td><td colspan="2">

Concatenation of the following attributes/values:

- Issuer Name: “NA/”
- Instrument Type: “O” (fixed value)
- Option Type: from request.OptionType
  - PUTO “P”
  - CALL “Call”
  - OPTL “Opt”
- Option Exercise Style: “Epn” (fixed value)
- Notional Currency: e.g., EUR - from request.NotionalCurrency

E.g.: “NA/O Call Epn EUR”
*Note: The Short Name is based on the OTC ISIN that excludes the following fields:*
- *Expiry Date*

</td></tr>
<tr><td>CFI Option Style and Type</td><td colspan="2">

Derived from the Underlying Request.OptionType and Request.OptionExerciseStyle

- PUTO/EURO → “European-Put”
- CALL/EURO → “European-Call”
- OPTL/EURO → “European-Chooser”

</td></tr>
<tr><td>CFI Delivery Type</td><td colspan="2">

Derived from the input Delivery Type…

- CASH → “Cash”
- PHYS → “Physical”
- OPTL → “Elect at Exercise”

</td></tr>
<tr><td rowspan="2">GUI Details</td><td colspan="3">The following section provides display information for any attributes (and values) that are not included in the related OTC ISIN definition.</td></tr>
<tr><td>Attribute</td><td>Display Name</td><td>Tool Tip (and • value elaboration)</td></tr>
</table>

| | | | |
|---|---|---|---|
| | Underlier ID | Underlier ID | An identifier that can be used to determine the asset(s), index (indices) or benchmark underlying a contract or, in the case of a foreign exchange derivative, identification of the currency pair or index |
| | Underlier ID Source | Underlier ID Source | The origin, or publisher, of the associated underlier ID. |
| | UPI | Identification | Unique Product Identifier (ISO 4914). |
| | CFI Option Style and Type | CFI Option Style and Type | The Option Style and Type as defined by CFI code: ISO 10962<br>• *As defined by CFI Code: ISO 10962* |
| | CFI Delivery Type | CFI Delivery Type | The Delivery Type as defined by CFI code: ISO 10962<br>• *As defined by CFI Code: ISO 10962* |

**Additional Information**

| | |
|---|---|
| **Reference** | References to external documents can be found on the DSB website at this address [https://www.anna-dsb.com/upi-external-reference-documents/]. |
| **Comments** | • Text values in the Short Name are taken from “ISO Abbrev w acronyms-Final_v0.5.5.FINAL.”<br>• The shortname abbreviation for option type – Put is “P” for rates option while in equity option, shortname abbreviation for the option type – Put is “Put”.<br>• The Option Type enumerated values of UPI will be based on current DSB OTC ISIN values [CALL; PUTO; OPTL] rather than the ISO 20022 values [CALL; PUTO; OTHR]. |

**ISO 4914 Equivalence**

| **ISO 4914** | | **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 |
| Option style | M | Not Required | Option Exercise Style |
| Option type | M | Option Type | Option Type |
| Return, pricing method or payout trigger | M | Not Required | Valuation Method or Trigger |
| Underlier ID | C | Underlier ID | Underlying Instrument Index |
| Underlier ID source | C | Underlier ID source | Not Required |
| Underlier Type | M | Not Required | Underlying Asset Type |
| Underlying Rate Index Tenor Period | C | Underlying Instrument Index Term Unit | Underlying Instrument Index Term Unit |
| Underlying Rate Index Tenor Period Multiplier | C | Underlying Instrument Index Term Value | Underlying Instrument Index Term Value |
| Underlying contract tenor period * | C | Not Required | |
| Underlying contract tenor period multiplier * | C | Not Required | |

*Underlying Contract Tenor Period / Multiplier applies only to a derivative contract underlying another derivative. For this product, the underlying is Inflation rates index and so these attributes are not required.