



## 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"><li>Update example values in the Request and Record templates layout</li><li>Insert Underlier Name attribute and Derivation rules</li></ul>
28 Feb 2023	Draft	3	<ul style="list-style-type: none"><li>Update Request and Record templates layout to include Spreadbets as enumerated value of Return or Payout Trigger attribute</li></ul>
01 Sep 2023	Draft	4	<ul style="list-style-type: none"><li>Remove “Classified as Confidential” in the Footer section.</li><li>Remove “RIC” as Alternate Underlier ID Source.</li><li>Update Associated Documentation to include Best Practice Guidelines and FAQs.</li><li>Update Best Practice Guidelines to include the link to Best Practice Guidelines and FAQs.</li></ul>

## TABLE OF CONTENTS

1	Introduction .....	3
1.1	Associated Documentation .....	3
2	Product Taxonomy .....	4
2.1	CFI Taxonomy .....	4
2.2	ISDA Taxonomy .....	4
3	Request Template .....	5
3.1	Underlier Input Method .....	5
3.2	Validation Rules.....	5
3.2.1	Underlying Structure [oneOf structure].....	5
4	Record Template.....	6
4.1	Normalization Rules .....	7
4.2	Derivation Rules .....	7
4.2.1	Classification Type.....	7
4.2.2	Short Name .....	7
4.2.3	Underlier Name.....	8
4.2.4	CFI Delivery Type.....	8
5	Supplementary Information.....	9
5.1	Best Practice Guidelines .....	9
5.2	Additional Comments.....	9
6	Appendix 1 – ISO 4914 Equivalence .....	10
7	Appendix 2 - OTC ISIN-UPI Mapping .....	11

# 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
	<b>Instrument (Category)</b>	<b>J</b>	Forwards	
	<b>Asset Class (Group)</b>	<b>R</b>	Rates	
<b>Attr #1</b>	<b>Underlying Assets</b>	<b>M</b>	Others	Others (miscellaneous)
<b>Attr #2</b>	<b>Not applicable/undefined</b>	<b>X</b>	Not applicable/undefined	Not applicable/undefined
<b>Attr #3</b>	<b>Return or payout trigger</b>	<b>F</b>	Forward price of underlying instrument	Forward price of underlying instrument
		<b>S</b>	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
<b>Attr #4</b>	<b>Delivery Type</b>	<b>C</b>	Cash	The discharge of an obligation by payment or receipt of a net cash amount instead of payment or delivery by both parties
		<b>P</b>	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"> <li>Single Underlier</li> <li>Basket</li> </ul>
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"> <li>ISIN</li> <li>FIGI</li> <li>CUSIP</li> <li>SEDOL</li> </ul>
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	<a href="#">ISO 10962</a> (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	<a href="#">ISO 18774</a> (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	