



Derivatives Service Bureau

Commodities : Forward : Multi_Exotic_Forward

UPI Product Definition

Version 3

Date	Status	Version	Revision Details
23 Aug 2022	Draft	1	Initial Version
31 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
07 Sep 2023	Draft	3	<ul style="list-style-type: none">• 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	Forward	
	Asset Class (Group)	T	Commodities	
Attr #1	Underlying Assets	B	Basket	Basket
Attr #2	Not applicable/undefined	X	Not applicable/undefined	Not applicable/undefined
Attr #3	Return or payout trigger	C	Contract for Difference (CFD)	A cash settled total return swap or forward where the parties agree to exchange on the maturity of the contract the difference between the opening price and closing price of the underlying
		F	Forward Price of Underlying Instrument	Forward price of underlying instrument
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 Commodities Taxonomy v2.0](#).

Node 1 Asset Class	Node 2 Transaction Type	Node 3 Settlement Type	Node 4 and/or Node 7 Commodity*
Commodity	Forward	Cash	Agricultural Products
		Physical	Composite Commodity Indices
			Energy
			Freight
			Metals
			Paper
			Plastic
			<i>Composite Commodity Indices</i>
			<i>Other</i>

*There is no exact match in the ISDA Taxonomy 2.0 for this product template. The current taxonomy 2.0 only provides Node 4 and/or Node 7 Commodity values [Agricultural Products, Composite Commodity Indices, Energy, Freight, Metals, Paper, Plastic, Other]. This product template is a catch all for products that fall outside of these specified Commodity values.

3 REQUEST TEMPLATE

This section describes the input message received by UPI service.

Template name	Template details	Release
Request.Commodities.Forward.Multi_Exotic_Forward.UPI.json	Initial version	Initial

Section	Attribute	Format	Cat	Example Value	Validation
Header Section	Asset Class	Set	M	Commodities	
	Instrument Type	Set	M	Forward	
	Product	Set	M	Multi_Exotic_Forward	
	Level	Set	M	UPI	
Attribute Section	Base Product	Enum	M	NRGY	[AGRI, NRGY, ENVR, FRGT, FRTL, etc.]
	Return or Payout Trigger	Enum	M	Forward price of underlying instrument	[Contract for Difference (CFD), Forward price of underlying instrument]
	Delivery Type	Enum	M	PHYS	[CASH, PHYS]

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	Commodities.Forward.Multi_Exotic_Forward.UPI.V1.json	Initial version	Initial

Section	Attribute	Format	Cat	Example Value	Derivation
Header Section	Asset Class	Set	M	Commodities	
	Instrument Type	Set	M	Forward	
	Product	Set	M	Multi_Exotic_Forward	
	Level	Set	M	UPI	
	Template Version	Integer	D	1	
Attribute Section	Base Product	Enum	M	NRGY	[AGRI, NRGY, ENVR, FRGT, FRTL, etc.]
	Return or Payout Trigger	Enum	M	Forward price of underlying instrument	[Contract for Difference (CFD), Forward price of underlying instrument]
	Delivery Type	Enum	M	PHYS	[CASH, PHYS]
Identifier Section	UPI	String	D	QZSDCC2ZW7TB	
	Status	String	D	New	[New; Updated; Deleted; Deprecated]
	Status Reason	String	D	<null>	
	Last Update Date Time	DtTm	D	2021-06-23T03:34:53	YYYY-MM-DDThh:mm:ss
Derived Section	Classification Type	String	D	JTBXFP	See Derivation Rules
	Short Name	String	D	NA/Fwd NRGY	See Derivation Rules
	Underlier Name	String	D	Basket	See Derivation Rules
	Underlier Characteristic	String	D	Basket	Fixed value
	Underlying Asset type	String	D	Basket	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	JTBXFP		
Source	ISO 10962 (CFI) – Third edition 2015-07-15		
Source Attribute	Source Value	Derivation Method	Result
Instrument Type	Forward	Fixed Mapping	J
Asset Class	Commodities	Fixed Mapping	T
Underlying Asset Type	Basket	Fixed Mapping	B
Not applicable/undefined	Not applicable/undefined	Fixed Mapping	X
Return or Payout Trigger	Contract for Difference (CFD)	Mapped to =>	C
	Forward price of underlying instrument	Mapped to =>	F
Delivery Type	CASH	Mapped to =>	C
	PHYS	Mapped to =>	P

4.2.2 Short Name

Attribute		Short Name	
Structure	"NA" + "/" + Instrument Type + Base Product		
Example	NA/Fwd NRGY		
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
Base Product	AGRI	Mapped to =>	AGRI
	NRGY	Mapped to =>	NRGY
	ENVR	Mapped to =>	ENVR
	FRGT	Mapped to =>	FRGT
	FRTL	Mapped to =>	FRTL
	INDP	Mapped to =>	INDP
	INFL	Mapped to =>	INFL
	OEST	Mapped to =>	OEST
	METL	Mapped to =>	METL
	MCEX	Mapped to =>	MCEX
	PAPR	Mapped to =>	PAPR
	POLY	Mapped to =>	POLY
	OTHC	Mapped to =>	OTHC
OTHR	Mapped to =>	OTHR	

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

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

- Only multiple underliers i.e., Basket is permitted. Hence, the Underlying Asset Type will be derived as “Basket”.
- The product template will keep the derived attribute Underlier Characteristic to maintain the consistency across multi-exotic products.

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	Base Product	Base Product
Underlier sub-type (first level)**	M	Not Required	Underlying Asset Type
Underlier sub-type (second level)***	C	Not Required	

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

**Underlier Asset Type will be used as the Underlier sub-type (first level) for this product.

***Underlier sub-type (second level) is not required for this product.

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	Sample UPI Value	Comments
Asset Class	Direct Map	Asset Class	Commodities	
Instrument Type	Direct Map	Instrument Type	Forward	
Use Case	Direct Map	Product	Multi_Exotic_Forward	
Level	Set to "UPI"	Level	UPI	
Notional Currency	No Mapping			
Expiry Date	No Mapping			
Base Product	Direct Map	Base Product	NRGY	
Underlying Instrument Index	No Mapping			
Underlying Instrument Index Prop	No Mapping			
Reference Rate	No Mapping			
Return or Payout Trigger	Direct Map	Return or Payout Trigger	Forward price of underlying instrument	
Delivery Type	Direct Map	Delivery Type	PHYS	
Transaction Type	No Mapping			
Final Price Type	No Mapping			
Price Multiplier	No Mapping			