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Derivatives Service Bureau (UPI)

CHANGE REQUEST FORM

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Version	State	Author	Date	Description
1	Draft	J. Lim	11 May 2021	Initial Document
2	Draft	J. Lim	21 Jul 2021	Updated attribute data dictionary and reference

Title	COMMODITIES FORWARD Forward Template Definition		
Background	The following CRF presents a specification for the generation and retrieval of a Unique Product Identifier for the following product: • **Commodities : Forward : Forward**	**DSB-ID**	**UPI-0302**
		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. • This CRF covers both the input (Request) and output (Record) templates. • Support for local jurisdiction / alternate underlier identifier input is currently out of scope. • Support for CFI 2019 values is currently out of scope.
Requirements	• The product definition will conform to ISO 4914 (UPI). • Where possible, the product definition is to be based on the attributes, values and behaviour of the equivalent OTC ISIN. • The product definition will return a product short name (FISN). • 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. • This specification is dependent on PC approval for the use of the OTC ISIN definitions as a basis for the UPI. • This specification is dependent on PC approval for the inclusion of ISO 4914 (UPI) conditional attributes. • This specification is dependent on TAC Approval for the DSB approach to ISO 10962 (CFI:2019) migration. • 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. • 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. • This specification assumes that no input values are to be defaulted by the system. • This specification is based on the current ISO 4914 (UPI) specification (CD) – including attributes that are not currently supported by the equivalent OTC ISIN. • This specification is based on the DSB's current equivalent OTC ISIN product definition. • This specification is based on the attributes and values defined in ISO 10962 (CFI:2015). • 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. • 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. • 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". • The specification for UPI does not include expiry date as part of the attributes, hence "expired" status does not apply. • The specification is based on the DSB's current equivalent OTC ISIN product definition that follows enumerated values based on RTS 23 (EU 2017/585) Table 2 rather than the ISO 20022.

Request Template Layout

Section	Attribute	Format	Cat	Example Value	Validation / Derivation	Enum Source	ORIGIN
Header Section	Asset Class	Set	M	Commodities		CFI:2015 Char#2 (JT****)	ISIN
	Instrument Type	Set	M	Forward		CFI 2015 Char#1 (JT****)	ISIN
	Product	Set	M	Forward			ISIN
	Level	Set	M	UPI			NEW
Attribute Section	Underlier ID	Enum	M	EMISSIONS - ICE-ECX EUA FUTURES	ISDACommoditiesReferenceRate.json	ISDA Taxonomy 2.0	NEW
	Underlier ID Source	String	M	ISDA	[ISDA]	Internal	NEW
	Base Product	Enum	M	ENVR	See CRF (Validation)	RTS 23 (EU 2017/585) Table 2	ISIN
	Sub Product	Enum	C	EMIS	See CRF (Validation)	RTS 23 (EU 2017/585) Table 2	ISIN
	Additional Sub Product	Enum	C	EUAE	See CRF (Validation)	RTS 23 (EU 2017/585) Table 2	ISIN
	Return or Payout Trigger	Enum	M	Forward price of underlying instrument	[Contract for Difference (CFD); Forward price of underlying instrument]	CFI:2015 Char#5 (JT****)	ISIN
	Delivery Type	Enum	M	PHYS	[CASH; PHYS]	ISO 20022	ISIN

Record Template Layout

Section	Attribute	Format	Cat	Example Value	Validation / Derivation	Enum Source	ORIGIN
Header Section	Asset Class	Set	M	Commodities		CFI:2015 Char#2 (JT****)	ISIN
	Instrument Type	Set	M	Forward		CFI 2015 Char#1 (JT****)	ISIN
	Product	Set	M	Forward			ISIN
	Level	Set	M	UPI			NEW
	Template Version	Integer	D	1			ISIN
Attribute Section	Reference Rate	Enum	M	EMISSIONS - ICE-ECX EUA FUTURES	ISDACommoditiesReferenceRate.json	ISDA Taxonomy 2.0	ISIN
	Base Product	Enum	M	ENVR	See CRF (Validation)	RTS 23 (EU 2017/585) Table 2	ISIN
	Sub Product	Enum	C	EMIS	See CRF (Validation)	RTS 23 (EU 2017/585) Table 2	ISIN
	Additional Sub Product	Enum	C	EUAE	See CRF (Validation)	RTS 23 (EU 2017/585) Table 2	ISIN
	Return or Payout Trigger	Enum	M	Forward price of underlying instrument	[Contract for Difference (CFD); Forward price of underlying instrument]	CFI:2015 Char#5 (JT****)	ISIN
	Delivery Type	Enum	M	PHYS	[CASH; PHYS]	ISO 20022	ISIN
Identifier Section	UPI	String	D	QZGLD1693JT4	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	JTNXFP	See CRF (Derivations)	ISO 10962:2015	ISIN
	Short Name	String	D	NA/Fwd ENVR EUAE	See CRF (Derivations)	ISO 18774: 2015	NEW
	Underlying Asset Type	String	D	Environmental	See CRF (Derivations)	CFI:2015 Char#3 (JT****)	ISIN
	CFI Delivery Type	String	D	Physical	See CRF (Derivations)	CFI:2015 Char#6 (JT****)	NEW

Product Definition	
Attributes	See Template Layout (above).
Validation	1. **Base Product / Sub Product / Additional Sub Product** • The user inputs the Base Product, Sub Product and Additional Sub Product in such order. No default value set for Sub Product and Additional Sub Product. • Sub Product and Additional Sub Product enumerated list is dependent on the input Base Product *(refer to Appendix 1 & 2 below)*. • If Sub Product or Additional Sub Product does not have a corresponding value, attribute(s) will be removed.
Attribute Data Dictionary	This section provides the exact reference or source of the attribute.

Full Name	Source	Type
Delivery Type	ISO 20022 FinancialInstrumentReportingReferenceDataReportV01	Enums [CASH; PHYS]
CFI Delivery Type	ISO 10962 Classification of financial instruments (CFI code)	Enums [Cash; Physical]
Return or Payout Trigger	ISO 10962 Classification of financial instruments (CFI code)	Enums [Contract for Difference (CFD); Forward price of underlying instrument]
Reference Rate	ISDA Taxonomy 2.0	Max350Text (based on string) minLength: 1 maxLength: 350
Base Product	RTS23 (EU 2017/585) Table 2	Max35Text (based on string)

	Sub Product	Note: Please see Appendix 1 & 2 below for the complete list of values and their corresponding product codes.	minLength: 1 maxLength: 35
	Additional Sub Product		
Normalization	Not Required.		
Derivation	This section provides additional details to the derivation logic specified in the Template Layout sections (above).		

	Classification Type	Concatenation of the following attributes/values:
		• Instrument Type: "J"
		• Asset Class: "T"
		• Underlying Asset Type: from Derived UnderlyingAssetType
		  - *Agriculture →* *A*
		  - *Energy →* *J*
		  - *Environmental →* *N*
		  - *Freight →* *G*
		  - *Fertilizer →* *S*
		  - *Metals →* *K*
		  - *Paper →* *T*
		  - *Polypropylene Products→ P*
		  - *Other →* *M*
		• Not applicable/undefined: "X"
		• Return or Payout Trigger: from Request. ReturnorPayoutTrigger
		  - *Contract for Difference (CFD)* *→ C*
		  - *Forward price of underlying instrument* *→ F*
		• Delivery Type: from Request.DeliveryType
		     CASH → *C*
		  - *PHYS →* *P*
		E.g.: "JTNXFP"

	Short Name	Concatenation of the following attributes/values:
		• Issuer Name: "NA/"
		• Instrument Type: "Fwd" (fixed value)
		• Base Product: "ENVR" from Request.BaseProduct
		  - *AGRI →* *AGRI*
		  - *NRGY →* *NRGY*
		  - *ENVR →* *ENVR*
		  - *FRGT →* *FRGT*
		  - *FRTL →* *FRTL*
		  - *INDP→* *INDP*
		  - *INFL →* *INFL*
		  - *OEST →* *OEST*
		  - *METL →* *METL*
		  - *MCEX →* *MCEX*
		  - *PAPR →* *PAPR*
		  - *POLY →* *POLY*
		  - *OTHC →* *OTHC*
		  - *OTHR →* *OTHR*
		• Additional Sub Product: "EUAE" from Request.AdditionalSubProduct
		Note: Please see Appendix 1 & 2 below for the complete list of values and its corresponding product code. Short Name concatenation does not include Sub Product.
		
		E.g.: "NA/Fwd ENVR EUAE".
		Note: The Short Name is based on the OTC ISIN that excludes the following fields:
		  - *Notional Currency*
		  - *Expiry Date*

	Underlying Asset Type	Derived from the input Base Product… • *AGRI →* "Agriculture" • *NRGY →* "Energy" • *ENVR →* "Environmental" • *FRGT →* "Freight"

	• *FRTL →* "Fertilizer" • *INDP →* "Other" • *INFL →* "Other" • *OEST →* "Other" • *METL →* "Metals" • *MCEX →* "Other" • *PAPR →* "Paper" • *POLY →* "Polypropylene Products" • *OTHC →* "Other" • *OTHR →* "Other"
CFI Delivery Type	Derived from the input Delivery Type… • CASH → "Cash" • PHYS → "Physical"

GUI Details	The following section provides display information for any attributes (and values) that are not included in the related OTC ISIN definition.

Attribute	Display Name	Tool Tip (and • *value elaboration*)
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 Delivery Type	CFI Delivery Type	The Delivery Type as defined by CFI code: ISO 10962 • *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." • Codeset name for Commodities Reference Rate must be amended from FpmlCommoditiesReferenceRate.json to ISDACommoditiesReferenceRate.json. • The Underlying Asset Type for Commodities.Forward.Forward template is defined according to its corresponding Base Product selected in the request template in accordance with DSB OTC ISIN behaviour. • There is a difference in the naming convention of Sub Product and Additional Sub Product between ISO 20022 and the DSB OTC ISIN (refer to Appendix 3 below), therefore the UPI will align with DSB OTC ISIN for these attributes. • The Derivation of underlying asset type for Base product "MCEX" of commodities swap is "Multi Commodity" while in Commodities Forward, the value is "Other". This is to in line with CFI values where multi commodity does not exist in Commodities Forward and only in Commodities Swap.

ISO 4914 Equivalence	**ISO 4914**		**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	Reference Rate
	Underlier ID Source	C	Underlier ID Source	Not Required
	Underlier Type	M	Base Product	

Underlier Sub-Type (first level)	M	Sub Product
Underlier Sub-Type (second level)	C	Additional Sub Product
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 a commodity and so these attributes are not required.

Appendix 1

Below is the limited set of enumerations based on RTS 23 (EU 2017/585) Table 2 to support the following entries:

Base Product	Code	Sub Product	Code	Additional Sub Product	Code
Agricultural	AGRI	GrainOilSeed	GROS	FeedWheat	FWHT
				Soybeans	SOYB
				Rapeseed	RPSD
				Other	OTHR
				Maize	CORN
				Rice	RICE
		Dairy	DIRY		
		Forestry	FRST		
		Livestock	LSTK		
		Seafood	SEAF		
		Soft	SOFT	RobustaCoffee	ROBU
				Cocoa	CCOA
				RawSugar	BRWN
				WhiteSugar	WHSG
				Other	OTHR
		OliveOil	OOLI	Lampante	LAMP
		Potato	POTA		
		Grain	GRIN	MillingWheat	MWHT
Energy	NRGY	Coal	COAL		
		Distillates	DIST		
		InterEnergy	INRG		
		LightEnd	LGHT		
		RenewableEnergy	RNNG		
		Electricity	ELEC	Baseload	BSLD
				FinancialTransmissionRights	FITR
				PeakLoad	PKLD
				OffPeak	OFFP
				Other	OTHR
		NaturalGas	NGAS	GasPool	GASP
				LNG	LNGG
				NCG	NCGG
				TTF	TTFG
				NBP	NBPG
		Oil	OILP	Bakken	BAKK
				Biodiesel	BDSL
				Brent	BRNT
				BrentNX	BRNX
				Canadian	CNDA
				Condensate	COND
				Diesel	DSEL
				Dubai	DUBA
				ESPO	ESPO
				Ethanol	ETHA
				Fuel	FUEL
				FuelOil	FOIL
				Gasoil	GOIL
				Gasoline	GSLN
				HeatingOil	HEAT
				JetFuel	JTFL
				Kerosene	KERO
				LightLouisianaSweet	LLSO
				Mars	MARS
				Naphta	NAPH
				NGL	NGLO
				Tapis	TAPI
				WTI	WTIO
				Urals	URAL

Base Product	Code	Sub Product	Code	Additional Sub Product	Code
Environmental	ENVR	Emissions	EMIS	CER	CERE
				ERU	ERUE
				EUA	EUAE
				EUAA	EUAA
				Other	OTHR
		CarbonRelated	CRBR		
		Weather	WTHR		
Freight	FRGT	Dry	DRYF	DryBulkCarrier	DBCR
		Wet	WETF	Tanker	TNKR
		ContainerShip	CSHP		
Fertilizer	FRTL	Ammonia	AMMO		
		DiammoniumPhosphate	DAPH		
		Potash	PTSH		
		Sulphur	SLPH		
		Urea	UREA		
		UreaAndAmmoniumNitrate	UAAN		
IndustrialProduct	INDP	Construction	CSTR		
		Manufacturing	MFTG		
Inflation	INFL				
OfficialEconomicStatistics	OEST				
Metal	METL	NonPrecious	NPRM	Aluminum	ALUM
				AluminumAlloy	ALUA
				Cobalt	CBLT
				Copper	COPR
				IronOre	IRON
				Molybdenum	MOLY
				NASAAC	NASC
				Nickel	NICK
				Steel	STEL
				Tin	TINN
				Zinc	ZINC
				Other	OTHR
				Lead	LEAD
		Precious	PRME	Gold	GOLD
				Other	OTHR
				Palladium	PLDM
				Platinum	PTNM
				Silver	SLVR
MultiCommodityExotic	MCEX				
Paper	PAPR	Containerboard	CBRD		
		Newsprint	NSPT		
		Pulp	PULP		
		RecoveredPaper	RCVP		
Polypropylene	POLY	Plastic	PLST		
OtherC10	OTHC	Deliverable	DLVR		
		NonDeliverable	NDLV		
Other	OTHR				

Appendix 2

Listed below are the corresponding enum_titles for each product code based on RTS 23 (EU 2017/585) Table 2:

Base Product	
enum_titles	enum
Agricultural[AGRI]	AGRI
Energy[NRGY]	NRGY
Environmental[ENVR]	ENVR
Freight[FRGT]	FRGT
Fertilizer[FRTL]	FRTL
IndustrialProduct[INDP]	INDP
Inflation[INFL]	INFL
OfficialEconomicStatistics[OEST]	OEST
Metal[METL]	METL
MultiCommodityExotic[MCEX]	MCEX
Paper[PAPR]	PAPR
Polypropylene[POLY]	POLY
OtherC10[OTHC]	OTHC
Other[OTHR]	OTHR

Sub Product	
enum_titles	enum
GrainOilSeed[GROS]	GROS
Dairy[DIRY]	DIRY
Forestry[FRST]	FRST
Livestock[LSTK]	LSTK
Seafood[SEAF]	SEAF
Soft[SOFT]	SOFT
OliveOil[OOLI]	OOLI
Potato[POTA]	POTA
Grain[GRIN]	GRIN
Coal[COAL]	COAL
Distillates[DIST]	DIST
InterEnergy[INRG]	INRG
LightEnd[LGHT]	LGHT
RenewableEnergy[RNNG]	RNNG
Electricity[ELEC]	ELEC
NaturalGas[NGAS]	NGAS
Oil[OILP]	OILP
Emissions[EMIS]	EMIS
CarbonRelated[CRBR]	CRBR
Weather[WTHR]	WTHR
Dry[DRYF]	DRYF
Wet[WETF]	WETF
ContainerShip[CSHP]	CSHP
Ammonia[AMMO]	AMMO
DiammoniumPhosphate[DAPH]	DAPH
Potash[PTSH]	PTSH
Sulphur[SLPH]	SLPH
Urea[UREA]	UREA
UreaAndAmmoniumNitrate[UAAN]	UAAN
Construction[CSTR]	CSTR
Manufacturing[MFTG]	MFTG
NonPrecious[NPRM]	NPRM
Precious[PRME]	PRME
Containerboard[CBRD]	CBRD
Newsprint[NSPT]	NSPT
Pulp[PULP]	PULP
RecoveredPaper[RCVP]	RCVP
Plastic[PLST]	PLST
Deliverable[DLVR]	DLVR
NonDeliverable[NDLV]	NDLV

Additional Sub Product	
enum_titles	enum
FeedWheat[FWHT]	FWHT
Soybeans[SOYB]	SOYB
Rapeseed[RPSD]	RPSD
Other[OTHR]	OTHR
Maize[CORN]	CORN
Rice[RICE]	RICE
RobustaCoffee[ROBU]	ROBU
Cocoa[CCOA]	CCOA
RawSugar[BRWN]	BRWN
WhiteSugar[WHSG]	WHSG
Other[OTHR]	OTHR
Lampante[LAMP]	LAMP
MillingWheat[MWHT]	MWHT
BaseLoad[BSLD]	BSLD
FinancialTransmissionRights[FITR]	FITR
PeakLoad[PKLD]	PKLD
OffPeak[OFFP]	OFFP
Other[OTHR]	OTHR
GasPool[GASP]	GASP
LNG[LNGG]	LNGG
NCG[NCGG]	NCGG
TTF[TTFG]	TTFG
NBP[NBPG]	NBPG
Bakken[BAKK]	BAKK
Biodiesel[BDSL]	BDSL
Brent[BRNT]	BRNT
BrentNX[BRNX]	BRNX
Canadian[CNDA]	CNDA
Condensate[COND]	COND
Diesel[DSEL]	DSEL
Dubai[DUBA]	DUBA
ESPO[ESPO]	ESPO
Ethanol[ETHA]	ETHA
Fuel[FUEL]	FUEL
FuelOil[FOIL]	FOIL
Gasoil[GOIL]	GOIL
Gasoline[GSLN]	GSLN
HeatingOil[HEAT]	HEAT
JetFuel[JTFL]	JTFL
Kerosene[KERO]	KERO

Additional Sub Product	
enum_titles	enum
LightLouisianaSweet[LLSO]	LLSO
Mars[MARS]	MARS
Naphta[NAPH]	NAPH
NGL[NGLO]	NGLO
Tapis[TAPI]	TAPI
WTI[WTIO]	WTIO
Urals[URAL]	URAL
CER[CERE]	CERE
ERU[ERUE]	ERUE
EUA[EUAE]	EUAE
EUAA[EUAA]	EUAA
Other[OTHR]	OTHR
DryBulkCarrier[DBCR]	DBCR
Tanker[TNKR]	TNKR
Aluminium[ALUM]	ALUM
AluminiumAlloy[ALUA]	ALUA
Cobalt[CBLT]	CBLT
Copper[COPR]	COPR
IronOre[IRON]	IRON
Molybdenum[MOLY]	MOLY
NASAAC[NASC]	NASC
Nickel[NICK]	NICK
Steel[STEL]	STEL
Tin[TINN]	TINN
Zinc[ZINC]	ZINC
Other[OTHR]	OTHR
Lead[LEAD]	LEAD
Gold[GOLD]	GOLD
Other[OTHR]	OTHR
Palladium[PLDM]	PLDM
Platinum[PTNM]	PTNM
Silver[SLVR]	SLVR

Appendix 3

Naming convention differences between RTS 23 (EU 2017/585) Table 2 and the DSB OTC ISIN.

Base Product	ISO 20022		RTS23	DSB OTC ISIN
	Sub Product			
Agricultural	GrainOilSeed	GrainOilSeeds	Grains and Oil Seeds	GrainOilSeed
	Soft	Softs	Softs	Soft
Energy	LightEnd	LightEnds	Light Ends	LightEnd
	Carbon	Carbon	-	-
Environmental	Emissions	Emission	Emissions	Emissions
Fertilizer	UreaAndAmmoniumNitrate	UreaAndAmmoniumNitrite	Urea and Ammonium Nitrate	UreaAndAmmoniumNitrate
Freight	ContainerShip	ContainerShip	Container Ships	ContainerShip
OtherC10	Deliverable	Deliverable	-	Deliverable
	NonDeliverable	NonDeliverable	-	NonDeliverable

Sub Product	ISO 20022		RTS23	DSB OTC ISIN
	Additonal Sub Product			
Dry	DryBulkCarrier	DryBulkCarrier	Dry bulk carriers	DryBulkCarrier