

Derivatives Service Bureau (UPI)
CHANGE REQUEST FORM

Version	State	Author	Date	Description
1	Draft	M. Surop	14 April 2021	Initial Document
2	Draft	M. Surop	27 April 2021	Updated ToR
3	Draft	M. Surop	31 May 2021	Updated Record Template layout, Validation, Attribute Data Dictionary & ISO 4914 Equivalence
4	Draft	M. Surop	14 June 2021	Updated error message for ISIN validation
5	Draft	M. Surop	14 July 2021	Updated template layout with Underlier input method, Attributes section, GUI Details, Reference & Comment sections. Removed hyperlinks in Attribute Data Dictionary & Reference Section.

Title	CREDIT SWAP Sovereign CDS Template Definition			
Background	<p>The following CRF presents a specification for the generation and retrieval of a Unique Product Identifier for the following product:</p> <ul style="list-style-type: none"> Credit : Swap : Sovereign 		DSB-ID	UPI-0168
			Type	New Template
			Owner	M. Surop
			Version	5
			State	Draft
Terms of Reference				
Scope	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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. 			

<ul style="list-style-type: none"> 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 for underlying debt issuance tenor period/underlying debt issuance tenor period multiplier is subject for review and approval by CDIDE as part of ISO 4914 standard.

Request Template Layout

Section	Attribute	Format	Cat	Example Value	Validation / Derivation	Enum Source	Origin
Header Section	Asset Class	Set	M	Credit		CFI:2015 Char#2 (SC****)	ISIN
	Instrument Type	Set	M	Swap		CFI:2015 Char#1 (SC****)	ISIN
	Product	Set	M	Sovereign			ISIN
	Level	Set	M	UPI			NEW
Attribute Section	Underlier Type (oneOf)	Enum	M	Fixed Income Security	[Fixed Income Security]		NEW
	Underlier ID Source	String	D	ISIN	[ISIN]	Internal	NEW
	Underlier ID	Enum	M	US195325BB02	See CRF (Validation)		NEW
	Underlier Type (oneOf)	Enum	M	Legal Entity	[Legal Entity]		NEW
	Underlier ID Source	String	D	LEI	[LEI]	Internal	NEW
	Underlier ID	Enum	M	529900FWX0GRR7WG5W79	See CRF (Validation)	ISO 17442 LEI Codes	NEW
	Debt Seniority	Enum	M	SNDB	[SNDB, MZZD, SBOD, JUND]	ISO 20022	ISIN
	Contract Specification	Enum	M	StandardLatinAmericaSovereign	FpML Matrix Term Scheme (5.130)	FpML 1.118	NEW
	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	Credit		CFI:2015 Char#2 (SC****)	ISIN
	Instrument Type	Set	M	Swap		CFI:2015 Char#1 (SC****)	ISIN
	Product	Set	M	Sovereign			ISIN
	Level	Set	M	UPI			NEW
Attribute Section	Template Version	Integer	D	1			ISIN
	Instrument LEI	String	M	529900FWX0GRR7WG5W79	See CRF (Validations)		ISIN
	Instrument ISIN	String	M	US195325BB02	See CRF (Validations)		ISIN
	Debt Seniority	Enum	M	SNDB	[SNDB, MZZD, SBOD, JUND]	ISO 20022	ISIN
	Contract Specification	Enum	C	StandardLatinAmericaSovereign	FpML Matrix Term Scheme (5.130)	FpML 1.118	NEW
	Delivery Type	Enum	M	CASH	[CASH, PHYS, OPTL]	ISO 20022	ISIN
Identifier Section	UPI	String	D	QZ41MS78Z7V2	UPI	ISO 4914	NEW
	Status	String	D	New			ISIN
	Status Reason	String	D	<null>	Not applicable to a New record		ISIN
	Last Update Date Time	DtTm	D	2021-04-14T09:51:11	YYYY-MM-DDThh:mm:ss		ISIN
Derived Section	Classification Type	String	D	SCUCSC	See CRF (Derivations)	ISO 10962:2015	ISIN
	Short Name	String	D	NA/CDS Sov SN Sr	See CRF (Derivations)	ISO 18774	NEW
	Underlying Asset Type	String	D	Single Name	Fixed value	CFI:2015 Char#3 (SCU***)	ISIN
	Return or Payout Trigger	String	D	Credit Default	Fixed value	CFI:2015 Char#4 (SC*C**)	ISIN
	Underlying Issuer Type	String	D	Sovereign	Fixed value	CFI:2015 Char#5 (SC**S*)	ISIN
	CFI Delivery Type	String	D	Cash	See CRF (Derivations)	CFI:2015 Char#6 (SC****)	NEW

Product Definition	
Attributes	<p>See Template Layout (above).</p> <p>In order to support the different ways in which underliers need to be supported in the definition of this product, the above Request template layout allows the user to specify the following:</p> <p>a) Underlier Type The Request template described in this document supports products that can be defined on the basis of more than one type of underlier. For this product, the user is asked to select one of the following:</p> <ul style="list-style-type: none"> Legal Entity Fixed Income Security <p>Once the Underlier Type is chosen, the user will be asked to select one of the Underlier ID Sources associated with that Underlier Type and enter the Underlier ID that matches the ID Source.</p> <p><i>* Please see Underlier Input Method Document (link provided in the Reference Section below) for further details.</i></p>
Validation	<p>1. Underlier ID The following validation will be applied to Underlier ID based on the value selected on Underlier ID Source [LEI, ISIN].</p> <p>a. LEI</p> <ul style="list-style-type: none"> The input text by user must be in 20 characters (18 alphanumeric, 2 numeric). A syntactic validation is being performed to confirm LEI.

	<ul style="list-style-type: none"> If the input LEI is less or more than 20 characters and/or is not aligned with the above pattern before hitting create, an error message will apply "Value must match the pattern <code>^[A-Z0-9]{18}[0-9]{2}\$</code>." If the input LEI is not aligned with the pattern and conformed with the syntactic validation after hitting create, an error message will apply "Error: /Attributes/Underlying: instance failed to match exactly one schema (matched 0 out of 2)". <p>b. ISIN</p> <ul style="list-style-type: none"> The input text by user must be in 12 characters (2 alpha, 9 alphanumeric, 1 numeric). The input text must not have a prefix of "QZ" or "EZ". A syntactic validation is being performed to confirm an ISIN when hitting create. If the input ISIN is less or more than 12 characters and/or is not aligned with the above pattern before hitting create, an error message will apply "Value must match the pattern <code>^(?!{EZ QZ})[A-Z]{2}[A-Z0-9]{9}[0-9]\$</code>." If the input ISIN is not aligned with the above pattern after hitting create, an error message will apply "Error: /Attributes/Underlying: instance failed to match exactly one schema (matched 0 out of 2)". If the input ISIN is aligned with the pattern criteria but ISIN value does not conformed with syntactic validation, an error message will apply "Error: ISIN/s must be valid". 																					
Normalization	Not Required.																					
Attribute Data Dictionary	<p>This section provides the exact reference or source of the attribute.</p> <table border="1" data-bbox="280 813 1495 1581"> <thead> <tr> <th data-bbox="280 813 588 869">Full Name</th> <th data-bbox="588 813 1160 869">Source</th> <th data-bbox="1160 813 1495 869">Type</th> </tr> </thead> <tbody> <tr> <td data-bbox="280 869 588 954">Delivery Type</td> <td data-bbox="588 869 1160 954">ISO 20022 FinancialInstrumentReportingReferenceDataReportV01</td> <td data-bbox="1160 869 1495 954">Enums [CASH, PHYS, OPTL]</td> </tr> <tr> <td data-bbox="280 954 588 1039">CFI Delivery Type</td> <td data-bbox="588 954 1160 1039">ISO 10962 Classification of financial instruments (CFI code)</td> <td data-bbox="1160 954 1495 1039">Enums [Cash, Physical, Auction]</td> </tr> <tr> <td data-bbox="280 1039 588 1124">Debt Seniority</td> <td data-bbox="588 1039 1160 1124">ISO 20022 FinancialInstrumentReportingReferenceDataReportV01</td> <td data-bbox="1160 1039 1495 1124">Enums [SNDB, MZZD, SBOD, JUND]</td> </tr> <tr> <td data-bbox="280 1124 588 1267">Contract Specification</td> <td data-bbox="588 1124 1160 1267">FpML Coding Scheme <i>Note: Only the Sovereign entries on this list will apply.</i></td> <td data-bbox="1160 1124 1495 1267">Enums [Please see Appendix below.]</td> </tr> <tr> <td data-bbox="280 1267 588 1411">Instrument LEI</td> <td data-bbox="588 1267 1160 1411">ISO 17442 LEI Codes</td> <td data-bbox="1160 1267 1495 1411">Max of 20 text (pattern) Char 1-4: LOU Identifier Char 5-18: Entity Identifier Char 19-20: Verification ID</td> </tr> <tr> <td data-bbox="280 1411 588 1581">Instrument ISIN</td> <td data-bbox="588 1411 1160 1581">Not Available</td> <td data-bbox="1160 1411 1495 1581">Max of 12 text (pattern) [A-Z] – firsts 2 characters [A-Z], [0-9] – Next 9 characters [0-9] – Last value is based on ISIN calculation</td> </tr> </tbody> </table>	Full Name	Source	Type	Delivery Type	ISO 20022 FinancialInstrumentReportingReferenceDataReportV01	Enums [CASH, PHYS, OPTL]	CFI Delivery Type	ISO 10962 Classification of financial instruments (CFI code)	Enums [Cash, Physical, Auction]	Debt Seniority	ISO 20022 FinancialInstrumentReportingReferenceDataReportV01	Enums [SNDB, MZZD, SBOD, JUND]	Contract Specification	FpML Coding Scheme <i>Note: Only the Sovereign entries on this list will apply.</i>	Enums [Please see Appendix below.]	Instrument LEI	ISO 17442 LEI Codes	Max of 20 text (pattern) Char 1-4: LOU Identifier Char 5-18: Entity Identifier Char 19-20: Verification ID	Instrument ISIN	Not Available	Max of 12 text (pattern) [A-Z] – firsts 2 characters [A-Z], [0-9] – Next 9 characters [0-9] – Last value is based on ISIN calculation
Full Name	Source	Type																				
Delivery Type	ISO 20022 FinancialInstrumentReportingReferenceDataReportV01	Enums [CASH, PHYS, OPTL]																				
CFI Delivery Type	ISO 10962 Classification of financial instruments (CFI code)	Enums [Cash, Physical, Auction]																				
Debt Seniority	ISO 20022 FinancialInstrumentReportingReferenceDataReportV01	Enums [SNDB, MZZD, SBOD, JUND]																				
Contract Specification	FpML Coding Scheme <i>Note: Only the Sovereign entries on this list will apply.</i>	Enums [Please see Appendix below.]																				
Instrument LEI	ISO 17442 LEI Codes	Max of 20 text (pattern) Char 1-4: LOU Identifier Char 5-18: Entity Identifier Char 19-20: Verification ID																				
Instrument ISIN	Not Available	Max of 12 text (pattern) [A-Z] – firsts 2 characters [A-Z], [0-9] – Next 9 characters [0-9] – Last value is based on ISIN calculation																				
Derivation	<p>This section provides additional details to the derivation logic specified in the Template Layout sections (above).</p> <table border="1" data-bbox="280 1637 1495 2033"> <tr> <td data-bbox="280 1637 459 1989">Classification Type</td> <td data-bbox="459 1637 1495 1989"> Concatenation of the following attributes/values: <ul style="list-style-type: none"> Instrument Type: "S" Asset Class: "C" Underlying Asset Type: "U" Return or Payout Trigger: "C" Underlying Issuer Type: "S" Delivery Type: from Request.DeliveryType... <ul style="list-style-type: none"> - CASH → C - PHYS → P - OPTL → A E.g.: "SCUCSC" </td> </tr> <tr> <td data-bbox="280 1989 459 2033">Short Name</td> <td data-bbox="459 1989 1495 2033">Concatenation of the following attributes/values:</td> </tr> </table>	Classification Type	Concatenation of the following attributes/values: <ul style="list-style-type: none"> Instrument Type: "S" Asset Class: "C" Underlying Asset Type: "U" Return or Payout Trigger: "C" Underlying Issuer Type: "S" Delivery Type: from Request.DeliveryType... <ul style="list-style-type: none"> - CASH → C - PHYS → P - OPTL → A E.g.: "SCUCSC"	Short Name	Concatenation of the following attributes/values:																	
Classification Type	Concatenation of the following attributes/values: <ul style="list-style-type: none"> Instrument Type: "S" Asset Class: "C" Underlying Asset Type: "U" Return or Payout Trigger: "C" Underlying Issuer Type: "S" Delivery Type: from Request.DeliveryType... <ul style="list-style-type: none"> - CASH → C - PHYS → P - OPTL → A E.g.: "SCUCSC"																					
Short Name	Concatenation of the following attributes/values:																					

	<ul style="list-style-type: none"> • Issuer: "NA/" • Instrument Type: "CDS" (fixed value) • Underlying Issuer Type: "Sov" (fixed value) • Underlying Asset Type: "SN" (fixed value) • Debt Seniority: from Request.DebtSeniority... <ul style="list-style-type: none"> - SNDB → Sr - MZZD → Mz - SBOD → Sub - JUND → Jr <p>E.g.: "NA/CDS Sov SN Sr"</p> <p>Note: The Short Name is based on the OTC ISIN that excludes the following field:</p> <ul style="list-style-type: none"> - Notional Currency - Expiry Date 																					
CFI Delivery Type	Derived from the input Delivery Type... <ul style="list-style-type: none"> • CASH → "Cash" • PHYS → "Physical" • OPTL → "Auction" 																					
GUI Details	The following section provides display information for any attributes (and values) that are not included in the related OTC ISIN definition.																					
	<table border="1"> <thead> <tr> <th>Attribute</th> <th>Display Name</th> <th>Tool Tip (and • value elaboration)</th> </tr> </thead> <tbody> <tr> <td>Underlier Type</td> <td>Underlier Type</td> <td>Indicates the type of underlying asset or entity on which the product is based.</td> </tr> <tr> <td>Underlier ID</td> <td>Underlier ID</td> <td>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.</td> </tr> <tr> <td>Underlier ID Source</td> <td>Underlier ID Source</td> <td>The origin, or publisher, of the associated underlier ID.</td> </tr> <tr> <td>Contract Specification</td> <td>Contract Specification</td> <td>The name of an existing document or reference that provides standard terms and conditions to be applied to the contract having the underlying asset or benchmark identified by the Underlier ID and Underlier ID source for which the UPI is assigned.</td> </tr> <tr> <td>UPI</td> <td>Identification</td> <td>Unique Product Identifier (ISO 4914).</td> </tr> <tr> <td>CFI Delivery Type</td> <td>CFI Delivery Type</td> <td>The Delivery Type as defined by CFI code: ISO 10962 <ul style="list-style-type: none"> • As defined by CFI Code: ISO 10962 </td> </tr> </tbody> </table>	Attribute	Display Name	Tool Tip (and • value elaboration)	Underlier Type	Underlier Type	Indicates the type of underlying asset or entity on which the product is based.	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.	Contract Specification	Contract Specification	The name of an existing document or reference that provides standard terms and conditions to be applied to the contract having the underlying asset or benchmark identified by the Underlier ID and Underlier ID source for which the UPI is assigned.	UPI	Identification	Unique Product Identifier (ISO 4914).	CFI Delivery Type	CFI Delivery Type	The Delivery Type as defined by CFI code: ISO 10962 <ul style="list-style-type: none"> • As defined by CFI Code: ISO 10962
Attribute	Display Name	Tool Tip (and • value elaboration)																				
Underlier Type	Underlier Type	Indicates the type of underlying asset or entity on which the product is based.																				
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.																				
Contract Specification	Contract Specification	The name of an existing document or reference that provides standard terms and conditions to be applied to the contract having the underlying asset or benchmark identified by the Underlier ID and Underlier ID source for which the UPI is assigned.																				
UPI	Identification	Unique Product Identifier (ISO 4914).																				
CFI Delivery Type	CFI Delivery Type	The Delivery Type as defined by CFI code: ISO 10962 <ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Currently the system does not hold reference data to support the validation of the LEI or ISIN. This means that it is not possible to validate the existence or classification of the Underlier ID. In addition, this means that human-readable alias is not currently supported for inclusion in the Short Name attribute. • The Contract Specification only applies to Credit.Swap.Corporate; Credit.Swap.Municipal; Credit.Swap.Sovereign & Credit.Swap.Non_Standard and does not apply to Credit.Swap.Loan; Credit.Swap.ABS; Credit.Swap.Index; Credit.Swap.Index_Tranche; & Credit.Swap.Total_Return_Swap. • In terms of the input template, Contract Specification will be marked as Mandatory so all new UPI will be created with the said value. So, both new OTC ISIN and UPI will have the Contract Specification. In addition, this specification will allow the system to support a UPI with no Contract Specification. Thus, making this field in the record template as Optional. In this way, an existing OTC ISIN with no Contract Specification will automatically create the legacy UPI with no Contract Specification. 																					
ISO 4914 Equivalence	<table border="1"> <thead> <tr> <th>ISO 4914</th> <th></th> <th>Request Attribute</th> <th>Record Attribute</th> </tr> </thead> <tbody> <tr> <td>Asset Class</td> <td>M</td> <td>Asset Class</td> <td>Asset Class</td> </tr> <tr> <td>Instrument type</td> <td>M</td> <td>Instrument Type</td> <td>Instrument Type</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Delivery Type</td> </tr> </tbody> </table>	ISO 4914		Request Attribute	Record Attribute	Asset Class	M	Asset Class	Asset Class	Instrument type	M	Instrument Type	Instrument Type				Delivery Type					
ISO 4914		Request Attribute	Record Attribute																			
Asset Class	M	Asset Class	Asset Class																			
Instrument type	M	Instrument Type	Instrument Type																			
			Delivery Type																			

	Delivery type	M	Delivery Type	CFI Delivery Type
	Return, pricing method or payout trigger	M	Not Required	Return or Payout Trigger
	Seniority	M	Debt Seniority	Debt Seniority
	Standard Contract Specification	C	Contract Specification	Contract Specification
	Underlier ID	C	Underlier ID	Instrument LEI
				Instrument ISIN
	Underlier ID source	C	Underlier ID Source	Not Required
	Underlier type	M	Not Required	Underlying Asset Type
	Underlier sub-type (first level)	M	Not Required	Underlying Issuer Type
	Underlying credit index series*	C	Not Required	
	Underlying credit index version*	C	Not Required	
	Underlying debt issuance tenor period**	C	Not Required	
	Underlying debt issuance tenor period multiplier**	C	Not Required	

*Underlying Credit Index Series/Version applies only to an underlying Credit Index. For this product, the underlying is either a Legal Entity or Debt Instrument and so these attributes are not required.

**Subject for review and approval by CDIDE as part of ISO 4914 standard.

Appendix

Below is the limited set of enumerations based on [FpML Matrix Term Scheme \(5.130\)](#) that is filtered only to support the Sovereign entries on this list:

Attribute	Enumerated List	Value elaboration
Contract Specification	AsiaSovereign	Matrix Transaction Type of ASIA SOVEREIGN.
	AustraliaSovereign	Matrix Transaction Type of AUSTRALIA SOVEREIGN.
	EmergingEuropeanAndMiddleEasternSovereign	Matrix Transaction Type of EMERGING EUROPEAN AND MIDDLE EASTERN SOVEREIGN.
	JapanSovereign	Matrix Transaction Type of JAPAN SOVEREIGN.
	LatinAmericaSovereign	Matrix Transaction Type of LATIN AMERICA SOVEREIGN.
	NewZealandSovereign	Matrix Transaction Type of NEW ZEALAND SOVEREIGN.
	SingaporeSovereign	Matrix Transaction Type of SINGAPORE SOVEREIGN.
	StandardAsiaSovereign	Matrix Transaction Type of STANDARD ASIA SOVEREIGN.
	StandardAustraliaSovereign	Matrix Transaction Type of STANDARD AUSTRALIA SOVEREIGN.
	StandardEmergingEuropeanAndMiddleEasternSovereign	Matrix Transaction Type of STANDARD EMERGING EUROPEAN AND MIDDLE EASTERN SOVEREIGN.
	StandardJapanSovereign	Matrix Transaction Type of STANDARD JAPAN SOVEREIGN.
	StandardLatinAmericaSovereign	Matrix Transaction Type of STANDARD LATIN AMERICA SOVEREIGN.
	StandardNewZealandSovereign	Matrix Transaction Type of STANDARD NEW ZEALAND SOVEREIGN.
	StandardSingaporeSovereign	Matrix Transaction Type of STANDARD SINGAPORE SOVEREIGN.
	StandardWesternEuropeanSovereign	Matrix Transaction Type of STANDARD WESTERN EUROPEAN SOVEREIGN.
	SukukSovereign	Matrix Transaction Type of SUKUK SOVEREIGN.
WesternEuropeanSovereign	Matrix Transaction Type of WESTERN EUROPEAN SOVEREIGN.	