Derivatives Service Bureau (ISIN)

CHANGE REQUEST FORM

Version	State	Author	Date	Description
1	Draft	M. Surop	15 Aug 2023	Initial Document
2	Final	M. Surop	12 Jul 2024	Added PICM-ID

Title	OTC ISIN: CRDT OPTN: Correct the Generation of CFI Code in Index Swaption template		
Background	In the current OTC ISIN Product Definition for Credit Option Index Swaption, the DSB allows user to generate or assign an incorrect CFI Code by selecting the value of the Underlying Asset Type in the REQUEST message. However, in the UPI Service, the CFI Code is generated accurately since the value of the Underlying Asset Type is derived from the Underlying Instrument UPI. To maintain the consistency in generating the correct CFI Code between UPI and OTC ISIN Services, there is a requirement to align the functionality where value of the Underlying Asset Type should be derived from the Underlying Instrument ISIN. *Note: This must be implemented in conjunction with DSB-2959 / DSB-2991.*	**PICM-ID**	PICM-49
		DSB-ID	DSB-2981
		Service	OTC ISIN
		Type	Attribute
		Owner	M. Surop
		Version	2
		State	Final
Terms of Reference			
Scope	• This CRF covers the input (Request) and output (Record) templates of the OTC ISIN Credit Index Swaption.		
Requirements	• There is a requirement to correct the assignment of the CFI Code to align the OTC ISIN with the UPI. • To maintain the UPI/OTC ISIN hierarchy, there is a requirement to align the UPI derivation of Underlying Asset Type to its equivalent OTC ISIN product. • The Underlying Asset Type must be derived from the Underlying Instrument ISIN, not to be input separately by the user.		

Request Template Layout

Section	Attribute	Format	Cat	Array	Example Value	Validation / Derivation	Enum Source
Header Section	Asset Class	Set	M	N	Credit		CFI:2015 Char#2 (HC****)
	Instrument Type	Set	M	N	Option		CFI:2015 Char#1 (HC****)
	Product	Set	M	N	Index_Swaption		
	Level	Set	M	N	InstRefDataReporting		
Attribute Section	Notional Currency	Enum	M	N	EUR	ISOCurrencyCode.json	ISO 4217 (3-Char CCY)
	Expiry Date	String	M	N	2023-06-02		RTS23/ Field 24
	Underlying Instrument ISIN	String	M	N	EZQSX5VB6204	Rates/Swap OTC ISIN	OTC ISIN RDL
	Option Type	Enum	M	N	CALL	[PUTO; CALL; OPTL]	ISO 20022/ CFI:2015 Char#4 (HC****)
	Option Exercise Style	Enum	M	N	EURO	[AMER; BERM; EURO]	ISO 20022/ CFI:2015 Char#4 (HC****)
	Valuation Method or Trigger	Enum	M	N	Vanilla	[Vanilla; Asian; Barrier; etc.]	CFI:2015 Char#5 (HC****)
	Delivery Type	Enum	M	N	CASH	[CASH; PHYS; OPTL]	ISO 20022/ CFI:2015 Char#6 (HC****)
	Price Multiplier	number	C	N	1		RTS23/ Field 25

Record Template Layout

Section	Attribute	Format	Cat	Array	Example Value	Validation / Derivation	Enum Source
Header Section	Asset Class	Set	M	N	Credit		CFI:2015 Char#2 (HC****)
	Instrument Type	Set	M	N	Option		CFI:2015 Char#1 (HC****)
	Product	Set	M	N	Index_Swaption		
	Level	Set	M	N	InstRefDataReporting		
	Template Version	Set	M	N	1M1		
Attribute Section	Notional Currency	Enum	M	N	EUR	ISOCurrencyCode.json	ISO 4217 (3-Char CCY)
	Expiry Date	String	M	N	2023-08-04		RTS23/ Field 24
	Underlying Instrument ISIN	String	M	N	EZQSX5VB6204	Credit/Swap OTC ISIN	OTC ISIN RDL
	Option Type	Enum	M	N	CALL	[PUTO; CALL; OPTL]	ISO 20022/ CFI:2015 Char#4 (HC****)
	Option Exercise Style	Enum	M	N	EURO	[AMER; BERM; EURO]	ISO 20022/ CFI:2015 Char#4 (HC****)
	Valuation Method or Trigger	Enum	M	N	Vanilla	[Vanilla; Asian; Barrier; etc.]	CFI:2015 Char#5 (HC****)
	Delivery Type	Enum	M	N	CASH	[CASH; PHYS; OPTL]	ISO 20022/ CFI:2015 Char#6 (HC****)
	Price Multiplier	number	M	N	1		RTS23/ Field 25
Identifier Section	ISIN	String	D	N	EZPFSD4D0RK8		ISO 6166: 2013
	Status	String	D	N	New		
	Status Reason	String	D	N	<null>	Not applicable to a New record	
	Last Update Date Time	String	D	N	2023-08-04T08:59:56	YYYY-MM-DDThh:mm:ss	
	UPI	String	D	N	QZGXCWLG4VGS		ISO 4914: 2021
Derived Section	Full Name	String	D	N	Credit Option Index_Swaption EZQSX5VB6204 EUR 20230804	See CRF Derivations	RTS23/ Field 2
	Classification Type	String	D	N	HCIAVC	See CRF Derivations	ISO 10962: 2015
	Commodity Derivative Indicator	String	D	N	FALSE		RTS23/ Field 4
	Issuer or Operator of the Trading Venue Identifier	String	D	N	NA		RTS23/ Field 5
	Short Name	String	D	N	NA/CDS Idx Swt EUR 20230804	See CRF Derivations	ISO 18774: 2015
	Underlying Asset Type	String	D	N	CDS on Index	See CRF Derivations	CFI:2015 Char#3 (HC****)

Product Definition

Change Details

At present, the DSB allows users to generate the incorrect CFI Code for this product by selecting the value of the Underlying Asset Type in the enumeration list that is made available in the REQUEST message. To maintain the UPI/OTC ISIN hierarchy, there is a requirement to correct the generation of CFI Code in the OTC ISIN. In order to meet the requirement, the following changes in the impacted product templates must be implemented:

a. Underlying Asset Type

- **<u>Remove the Underlying Asset Type attribute in the REQUEST message.</u>**
  The removal of the Underlying Asset Type attribute in the REQUEST message prevents the user to select the value of this attribute from the enumeration list. Thus, user is not able to generate the incorrect CFI codes. See the GUI illustration in Appendix 1.

- **<u>Derive the value of the Underlying Asset Type from the input Underlying Instrument ISIN.</u>**
  The value of the Underlying Asset Type should be derived from the input Underlying Instrument ISIN. See details of derivation process in Appendix 3.

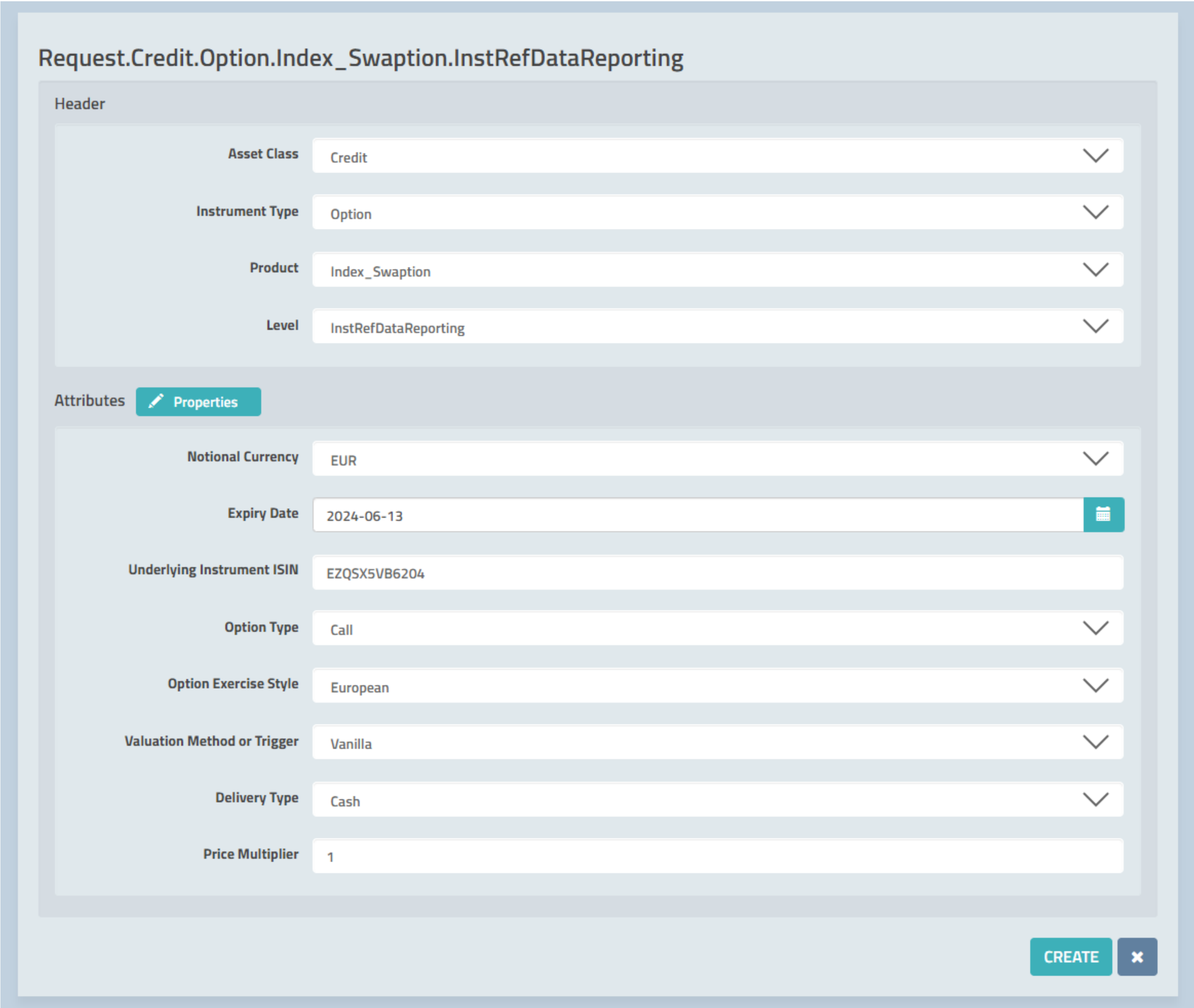
- **<u>Derived value of the Underlying Asset Type should be part of the RECORD message in the Derived Section.</u>**
  Once OTC ISIN RECORD message is returned, the value of the Underlying Asset Type that is derived from the

	Underlying Instrument ISIN should be part of the RECORD message in the Derived Section. Please see the GUI illustration in Appendix 2.	
Impacted Product	This change will impact the OTC ISIN Product Definition templates (Request and Record): • Credit.Option.Index_Swaption	
Validation	Remains unchanged.	
Normalization	Remains unchanged.	
Derivation	Please see details of derivation rules in Appendix 3.	
User Impact?	**Yes**	Users will need to download the updated template to access the change in the functionality.
	Versions	The version number of in-scope Record template will be impacted.
Use Cases	• **Valid Request:** 1. In all use cases, ensure that the input Underlying Instrument ISIN should have a parent UPI. 2. In all use cases, a Swaption if created successfully, should have a parent UPI. 3. In all use cases, ensure that the UPI/OTC ISIN relationship that exists in Swap [Underlier] and in Swaption are in line with each other. 4. The Underlying Asset Type should be derived from the input Underlying Instrument ISIN. • **Invalid Request:** 1. User sends in a payload that contains an invalid Underlying Instrument ISIN. 2. User enters an Underlying Instrument ISIN that does not have a parent UPI.	
Backward Compatibility	Because of the removal from REQUEST message of the Underlying Asset Type attribute, the user access to the existing OTC ISIN is limited based on the following functions: 1. **Retrieve or Create ISIN Record**: User supplies request attributes to the system and DSB returned the recorded version of the ISIN or generate a new ISIN if not yet created in the system. a. User will submit the request attributes including the Underlying Asset Type attribute. The system validates the input data including the Underlying Asset Type attribute. b. The request message becomes invalid, the DSB will return an error message and will not retrieve or create an ISIN record. 2. **Retrieve No Create:** User supplies the request attributes and the DSB will return the record attributes (including the derived values) if it already exists. This does not create a record if no ISIN is found. a. User will enter the request attributes including the Underlying Asset Type attribute. The system validates the input data including the Underlying Asset Type attribute. b. The request message becomes invalid, the DSB will return an error message and will not retrieve an ISIN record. 3. **Retrieve ISIN Record by ISIN**: User uses the search function by supplying the OTC ISIN and the DSB returns the record attributes. **a.** If the user supplies the OTC ISIN, the system will return the record template based on the appropriate version of the record template. 4. **Search for ISIN Record**: User can search for an existing OTC ISIN based on a number of criteria (i.e., ISIN attributes). a. User needs to use the Lucene search string to search for an ISIN record. Once change is implemented, the Underlying Asset Type is derived based on the input Underlying Instrument ISIN and sits in the Derived Section of the RECORD message. If the user sends in a request that includes the Underlying Asset Type attribute, users are not able to retrieve nor create an ISIN. Users can only access these RECORD messages by retrieving the ISIN record by ISIN or search an ISIN record based on ISIN attributes.	

Additional Information	
Documentation	The following DSB documents are to be updated: 1. OTC ISIN Product Definitions Masterfile • OTC ISIN Product Definitions Masterfile - CREDIT 2. OTC ISIN Product Definitions Document • OTC ISIN Product Definition Credit.Option.Index_Swaption (ISIN-CR OPT 085)
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	• The input Underlying Instrument ISIN should have a parent UPI. The UPI/OTC ISIN relationship within Swap [Underlier] and Swaption products must exists, and the relationship combination between the UPI/OTC ISIN should be in line with each other.

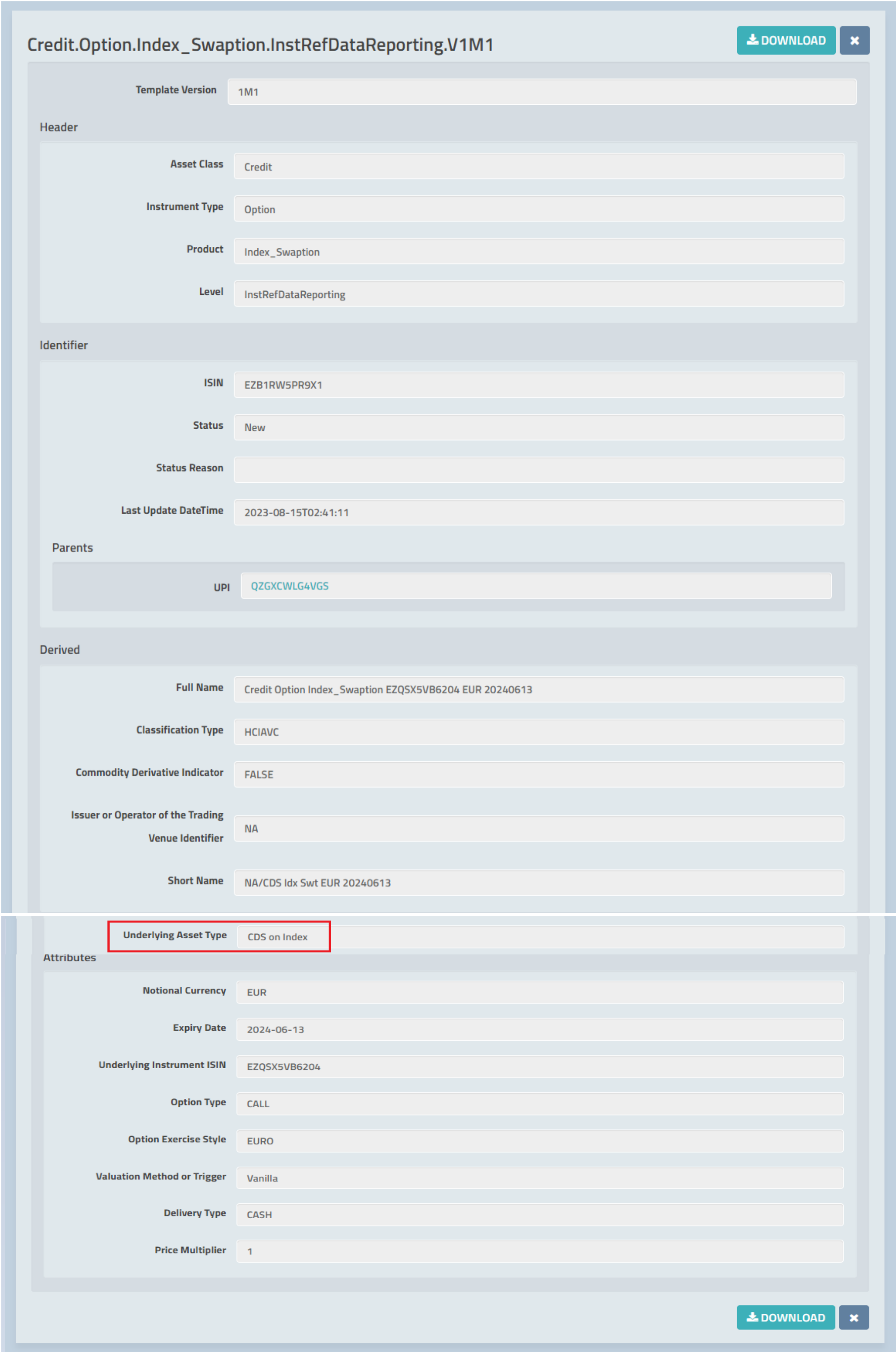
Appendix 1: GUI Definition - Request Template

Below illustrates the GUI REQUEST template for this product where the Underlying Asset Type attribute and drop-down menu is removed. Thus, preventing the user to generate an incorrect CFI code.



Appendix 2: GUI Definition - Record Template

Below illustrates the returned RECORD template in the GUI where the Underlying Asset Type value is derived from the Underlying Instrument ISIN.


Credit.Option.Index_Swaption.InstRefDataReporting.V1M1

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Template Version	1M1

Header

Asset Class	Credit
Instrument Type	Option
Product	Index_Swaption
Level	InstRefDataReporting

Identifier

ISIN	EZB1RW5PR9X1
Status	New
Status Reason	
Last Update DateTime	2023-08-15T02:41:11

Parents

UPI	QZGXCWLG4VGS

Derived

Full Name	Credit Option Index_Swaption EZQSX5VB6204 EUR 20240613
Classification Type	HCIAVC
Commodity Derivative Indicator	FALSE
Issuer or Operator of the Trading Venue Identifier	NA
Short Name	NA/CDS Idx Swt EUR 20240613
Underlying Asset Type	CDS on Index

Attributes

Notional Currency	EUR
Expiry Date	2024-06-13
Underlying Instrument ISIN	EZQSX5VB6204
Option Type	CALL
Option Exercise Style	EURO
Valuation Method or Trigger	Vanilla
Delivery Type	CASH
Price Multiplier	1

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Appendix 3: Derivation Rules

The following derivation rules will apply to this product.

1. Underlying Asset Type

- The value of the Underlying Asset Type is derived from the **Underlying Asset Type attribute** of the input Underlying Instrument ISIN.
- The derived value of the Underlying Asset Type is translated to the CFI values as per table below and should be used in the generation of the CFI code of the Parent Swaption. See full details of Classification Type in the following section.

Source Attribute	Source Value (Credit Swap)	Derivation Method	Underlying Asset Type (Parent Swaption)
Underlying Asset Type *[from the Underlying Instrument ISIN record]*	Index	Mapped to =>	CDS on Index
	Index Tranche	Mapped to =>	CDS on Index Tranche

2. Classification Type

Attribute	Classification Type		
Structure	Instrument Type + Asset Class + Underlying Asset Type + Option Style and Type + Valuation Method or Trigger + Delivery Type		
Example	HCIAVC		
Source	ISO 10962 (CFI) – Third edition 2015-07-15		
Source Attribute	**Source Value**	**Derivation Method**	**Result**
Instrument Type	Non-listed and complex listed options	Fixed Mapping	H
Asset Class	Credit	Fixed Mapping	C
Underlying Asset Type *[As derived in Appendix 3 – Section 1]*	CDS on Index	Mapped to =>	I
	CDS on Index Tranche	Mapped to =>	V
Option Style and Type	PUTO/EURO	Mapped to =>	D
	CALL/EURO	Mapped to =>	A
	OPTL/EURO	Mapped to =>	G
	PUTO/AMER	Mapped to =>	E
	CALL/AMER	Mapped to =>	B
	OPTL/AMER	Mapped to =>	H
	PUTO/BERM	Mapped to =>	F
	CALL/BERM	Mapped to =>	C
	OPTL/BERM	Mapped to =>	I
Valuation Method or Trigger	Vanilla	Mapped to =>	V
	Asian	Mapped to =>	A
	Digital (Binary)	Mapped to =>	D
	Barrier	Mapped to =>	B
	Digital Barrier	Mapped to =>	G
	Lookback	Mapped to =>	L
	Other Path Dependent	Mapped to =>	P
	Other	Mapped to =>	M
Delivery Type	CASH	Mapped to =>	C
	PHYS	Mapped to =>	P
	OPTL	Mapped to =>	E

3. Full Name

Attribute	Short Name		
Structure	Asset Class + Instrument Type + Product + Underlying Instrument ISIN + Notional Currency + Expiry Date		
Example	Credit Option Index_Swaption EZQSX5VB6204 EUR 20230804		
Source	Full Name of the instrument as defined in RTS23/ Field2		
Source Attribute	**Source Value**	**Derivation Method**	**Result**
Asset Class	Credit	Fixed Mapping	Credit
Instrument Type	Non-listed and complex listed options	Fixed Mapping	Option
Product	Index_Swaption	Fixed Mapping	Index_Swaption
Underlying Instrument ISIN	Underlying Instrument ISIN	Input Value	e.g., EZQSX5VB6204
Notional Currency	Notional Currency	Mapped Enumeration	e.g., EUR
Expiry Date	Expiry Date	Date Format (YYYYMMDD)	e.g., 20230804

4. Short Name

Attribute	Short Name		
Structure	"NA" + "/" + Underlying Product + Product + Notional Currency + Expiry Date		
Example	NA/CDS Idx Swt EUR 20230804		
Source	ISO 18774 (Financial Instrument Short Name) - First edition 2015-11		
Source Attribute	**Source Value**	**Derivation Method**	**Result**
Issuer Name	None	Fixed Mapping	NA/
Underlying Product	Credit Default Swap (CDS)	Fixed Abbreviation	CDS
Product	Index Swaption	Fixed Abbreviation	Idx Swt
Notional Currency	Notional Currency	Mapped Enumeration	e.g., EUR
Expiry Date	Expiry Date	Date Format (YYYYMMDD)	e.g., 20230804