DERIVATIVES SERVICE BUREAU (DSB) LTD

Credit : Option : Single_Name_Swaption

ISIN Product Definition

Version 1

Date	Status	Version	Revision Details
29 Sep 2023	Draft	1	Initial Version

Contents

1. Introduction

This document is designed to act as a manual for users to interpret the Product Definitions in the DSB OTC ISIN Service.

This document provides the user with a detailed description of the ISIN Product Definition content such as attribute enumerations, validation, normalization, and derivation where applicable.

1.1   Associated Documentation

The reference documents below contain values and information maintained by the DSB for consistency and ease of access.

These documents are made available on the ANNA DSB website (Product Definitions page):

Title	Description	Location
Enumerations Document	Lists all fixed values used for a product	Enumerations section
Product Definition Data Dictionary	Defines attributes in the Request and Record templates; and from which they are referenced on	Other Documents section
Product Definition Validations and Normalizations Document	Specifies details on validation and normalization rules	
Best Practice Guidelines and FAQs	Lists answers to queries raised by users and provides guidance on the use of the templates	
GitHub Environment Section	ANNA DSB Github Environment where the JSON templates for each product is found	

2. Product Taxonomy

2.1 CFI Taxonomy

Source: ISO 10962 (CFI Code) – Third edition 2015-07-15

Attr #	Title	Values	Name	Description
	Instrument (Category)	H	Non-listed and Complex listed options	
	Asset Class (Group)	C	Credit	
Attr #1	Underlying Assets	U	CDS on a Single Name	A CDS where the underlying risk is a single reference entity or single reference obligation
Attr #2	Option style and type	A	European-Call	An option on a contract which allows its holder (buyer) to exercise the right to buy specified assets (interest rates product) at a fixed price only on the expiration date of the call
		B	American-Call	An option on a contract which allows its holder (buyer) to exercise the right to buy specified assets (interest rates product) at a fixed price at any time during the term of the call option, up to and including the expiration date of the call
		C	Bermudan-Call	An option on a contract which allows its holder (buyer) to exercise the right to buy specified assets (interest rates product) at a fixed price on a number of specific dates within the exercise period of the call
		D	European-Put	An option on a contract which allows its holder (buyer) to exercise the right to sell specified assets (interest rates product) at a fixed price only on the expiration date of the put
		E	American-Put	An option on a contract which allows its holder (buyer) to exercise the right to sell specified assets (interest rates product) at a fixed price at any time during the term of the put option, up to and including the expiration date of the put
		F	Bermudan-Put	An option on a contract which allows its holder (buyer) to exercise the right to sell specified assets (interest rates product) at a fixed price on a number of specific dates within the exercise period of the put
		G	European-Chooser	An option on a contract which allows its holder (buyer) to exercise the right to buy (call) or sell (put) specified assets (interest rates product) at a fixed price, only on the contract's expiration date; the buyer does not have to decide whether the contract will be a put or a call until an agreed future date, prior to expiration
		H	American-Chooser	An option on a contract which allows its holder (buyer) to exercise the right to buy (call) or sell (put) specified assets (interest rates product) at a fixed price at any time during the

					term of the contract, up to and including the expiration date of the call or put; the buyer does not have to decide whether the contract will be a put or a call until an agreed future date, prior to expiration
			I	Bermudan-Chooser	An option on a contract which allows its holder (buyer) to exercise the right to buy (call) or sell (put) specified assets (interest rates product) at a fixed price on a number of specific dates within the exercise period of the contract; the buyer does not have to decide whether the contract will be a put or a call until an agreed future date, prior to expiration
Attr #3	**Valuation Method or Trigger**		V	Vanilla	An option for which all terms are standardized
			A	Asian	An option where either the strike price or the settle-ment price is the average level of an underlying instrument over a predetermined period; the averaging can be either a geometric or arithmetic average
			D	Digital (Binary)	An option that has a pre-determined pay-out if the option is in-the-money and the payoff condition is satisfied; also referred to as a "binary option" or an "all-or-nothing option"
			B	Barrier	An option whose final exercise depends upon the path taken by the price of an underlying instrument; for a "knock-out" barrier option, the option is cancelled if the underlying price crosses a predetermined barrier level; for a "knock-in" barrier option, the option becomes available-for-exercise if the underlying price crosses a predetermined barrier level
			G	Digital Barrier	A digital option embedded with a barrier option; there are different variations of this type of option; as an example, a down-and-out digital call option will pay a fixed payoff, or the underlying, at any time before maturity that the underlying price is equal to or greater than the bar-rier level; it will pay zero if the underlying price is less than the barrier level
			L	Lookback	An option that minimizes the uncertainties related to the timing of market entry; there are two types of look-back options: fixed and floating; the fixed option strike is determined at purchase, and the floating option strike is determined at maturity
			P	Other Path Dependent	An option on a contract whose payoff is directly related to the price pattern the underlying asset follows during the life of the contract
			M	Others	Others (miscellaneous)

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
		E	Elect at exercise	The method of delivery of the underlying instrument when the option is exercised shall be determined at the time of exercise

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
Credit	Swaptions	*Various entries*	*Various entries*	Single_Name_Swaption

3. Request Template

The Request Template describes the input message received by the OTC ISIN service.

Users can find the detailed description of this template in the Credit spreadsheet that contains the layout of all templates. This can be found in the Credit section of the Product Definitions page on the ANNA DSB website.

Change details of the template can be found on the appropriate Github page.

Template name	Template details	Release
Request.Credit.Option.Single_Name_Swaption.InstRefDataReporting.json	Initial version	Initial

3.1   Validation Rules

- For non-specific product validation rules, please refer to ISIN Product Definition Validations and Normalizations Document (See Section 1.1).
- For enumerations, please refer to the associated ISIN Product Definition Enumeration document for the impacted attributes (See Section 1.1).

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4. Record Template

The Record Template describes the record returned by the OTC ISIN service.

Users can find the detailed description of this template in the Credit spreadsheet that contains the layout of all templates. This can be found in the Credit section of the Product Definitions page on the ANNA DSB website.

Change details of the template can be found on the appropriate Github page.

Version	Template name	Template details
V1	**Credit.Option.Single_Name_Swaption.InstRefDataReporting.V1.json**	Initial version
V1M1	**Credit.Option.Single_Name_Swaption.InstRefDataReporting.V1M1.json**	Added Parent UPI

4.1   Normalization Rules

For non-specific product normalization rules, please refer to the Product Definition Validations and Normalizations (See Section 1.1).

4.2   Derivation Rules

This section describes the derivations of product attributes highlighted in the Record Template.

4.2.1   Full Name

Attribute	Full Name		
Structure	Asset Class + Instrument Type + Product + Underlying Instrument ISIN + Notional Currency + Expiry Date		
Example	Credit Option Single_Name_Swaption EZS8GSPW5127 KRW 20240531		
Source	RTS23/Field2 - Instrument Full Name		
Source Attribute	**Source Value**	**Derivation Method**	**Result**
Asset Class	Credit	Fixed Value	Credit
Instrument Type	Option	Fixed Abbreviation	Option
Product	Single_Name_Swaption	Fixed Abbreviation	Single_Name_Swaption
Underlying Instrument ISIN	e.g., EZS8GSPW5127	Extracted value =>	e.g., EZS8GSPW5127
Notional Currency	Notional Currency	Mapped Enumeration	e.g., USD, EUR, GBP

Expiry Date	Expiry Date	Date Format (YYYYMMDD)	20240531

4.2.2 Classification Type

Attribute	Classification Type		
Structure	Instrument Type + Asset Class + Underlying Asset Type + Option Type/Style + Valuation Method or Trigger + Delivery Type		
Example	HCUAPP		
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	CDS on a Single Name	Fixed Mapping	U
Option Style and Type	PUTO/EURO	Mapped to =>	D
	CALL/EURO	Mapped to =>	A
	OPTL/EURO	Mapped to =>	G
	PUTO/AMER	Mapped to =>	E
	PUTO/BERM	Mapped to =>	F
	CALL/AMER	Mapped to =>	B
	CALL/BERM	Mapped to =>	C
	OPTL/AMER	Mapped to =>	H
	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

4.2.3   Short Name

Attribute	Short Name		
Structure	"NA" + "/" + Underlying Product + Product Type + Notional Currency + Expiry Date		
Example	NA/CDS SN Swt KRW 20240531		
Source	ISO 18774 (Financial Instrument Short Name) - First edition 2015-11		
Source Attribute	**Source Value**	**Derivation Method**	**Result**
Issuer Name	None	Fixed Value	NA/
Underlying Product	Credit Default Swap (CDS)	Fixed Abbreviation	CDS
Product Type	Single Name Swaption	Fixed Abbreviation	SN Swt
Notional Currency	Notional Currency	Mapped Enumeration	e.g., USD, EUR, GBP
Expiry Date	Expiry Date	Date Format (YYYYMMDD)	20240531

5. Supplementary Information

5.1   Best Practice Guidelines

Please refer to Best Practice Guidelines and FAQs (See Section 1.1).

5.2   Additional Comments

- The short name abbreviation for Option Type [CALL, PUTO, OPTL] within Commodity Asset Class are [Call, Put, OPTL] whereas Rates use [Call, P, Opt], Equities use [Call, Put, Opt] and Foreign_Exchange use [Call, Put, O]. For Credit Asset Class, Option Type is not part of the Short Name.

- Standard Contract Specification only applies to CDS Products [Credit.Swap.Corporate, Credit.Swap.Municipal, Credit.Swap.Sovereign, Credit.Swap.Non_Standard].

6. Appendix 1 - 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 Values	Comments
Asset Class	Direct Map	Asset Class	Credit	
Instrument Type	Direct Map	Instrument Type	Option	
Use Case	Direct Map	Product	Single_Name_Swaption	
Level	Set to "UPI"	Level	UPI	
Notional Currency	No Mapping			
Expiry Date	No Mapping			
Underlying Instrument ISIN	From Underlying Instrument ISIN/Parent/UPI	Underlier ID	QZQBT22R6XX4	
	Set to "UPI"	Underlier ID Source	UPI	
Option Type	Direct Map	Option Type	CALL	
Option Exercise Style	Direct Map	Option Exercise Style	EURO	
Valuation Method or Trigger	Direct Map	Valuation Method or Trigger	Vanilla	
Underlying Asset Type	No Mapping			Underlying Asset Type attribute for the UPI is in the Derived section of the Record template.
Delivery Type	Direct Map	Delivery Type	PHYS	
Price Multiplier	No Mapping			