Version	State	Author	Date	Description
1	Draft	M.A. Gariplan	19 Oct. 22 2021	Initial Document

Title	ISIN : Commodities : Option : Swaption Underlier Validation					
Background	In the current OTC ISIN product definition, only syntactic validation is	JIRA	DSB-2066			
	applied to the Underlying Instrument ISIN attribute.	Туре	Validation			
	In order to maintain UPI/ISIN hierarchy, the UPI product validations will be aligned to its equivalent ISIN product. Additional validations will be included in the Underlying Instrument ISIN attribute in which certain conditions will be implemented. OTC ISIN product: OTC ISIN product: State Owner M.A. Gariplan 1 OTC ISIN product:					
	ore isin product.					
	Commodities Option Swaption					
	*This product is based on an underlying ISIN Swap and will derive data elements from the provided ISIN.					
Terms of Reference	This CRF covers the input (Request) template of the ISIN product.					
Requirements	At the moment, only syntactic validation is performed on the Underlying Instrument ISIN field.					
	To maintain the UPI/ISIN hierarchy, there is a requirement to align the UPI product validations to its equivalent OTC ISIN product i.e., Underlying Instrument ISIN.					
	The input Underlying Instrument ISIN must have a prefix "EZ" with its structure based on ISO 6166.					
	The input Underlying Instrument ISIN must be a valid and existing ISIN in RDL.					
	• The input Underlying Instrument ISIN mut be a valid Commodities Swap product with status not "Deleted".					
Validation	1. Underlying Instrument ISIN					
	 a. The following validation will be applied to the Underlying Instrument ISIN and must be a valid ISIN RDL record. 					
	■ ISIN 12 characters (Prefix "EZ", 9 Alphanum	eric, 1 Nun	neric check character)			
	ISIN structure based on ISO 6166 ISIN					
	 If input ISIN has more than 12 characters or does not have pr apply before it proceeds to create: "Value must match the pa 		_			
	2. Underlying Instrument ISIN in the record					
	a. If input ISIN does not exist, an error message will apply: "Error: ISIN/s not found".					
	 The following validation will be applied to Underlying Instrument ISIN reco the ISIN RDL. 					
	Asset Class "Commodities"					
	■ Instrument Type "Swap"					

not = "Deleted" Status b. If the above validation rules are not satisfied, an error message will apply: "Error: Underlying Instrument ISIN must be a valid and existing Commodities Swap". **Change Impact** This change impacts the following product: Commodities.Option.Swaption **Backward** At present, only syntactic validation is applied to the input Underlying Instrument ISIN. Once the validation Compatibility is implemented, additional conditions will be included in the existing validation for the attribute. The existing invalid OTC ISINs will remain in the DSB RDL but will be subject to the following functional restrictions: Unable to create invalid ISINs by attribute Unable to retrieve by attribute Able to retrieve by ISIN Able to search by supported attribute All functionalities are available for existing valid OTC ISINs. Details of these functions are provided below: Retrieve or Create ISIN Record - Users submit request attributes to the system and DSB returns the recorded version of the ISIN or generate a new ISIN if not yet created in the system. a. User will enter the request attributes, then the system validates the input data including the new validations for the Underlying Instrument ISIN. b. If the request attribute is valid, the DSB will return a recorded version of an ISIN or generate a new ISIN if not existing. c. If the request attribute is invalid, the DSB will return an error message and will not retrieve or create an ISIN record. d. The DSB will not inform users whether an ISIN exists in the DSB record or not. Retrieve No Create - Users can retrieve an ISIN, and attributes related to that ISIN (including the derived attributes) if it already exists. This does not create a record if no ISIN is found. a. User will enter the request attributes, then the system validates the input data including the new validations for the Underlying Instrument ISIN. b. If the request attribute is valid, the DSB will return a record template (attributes and derived) but will not generate an ISIN or will provide an ISIN record template if existing. c. If the request attribute is invalid, the DSB will return an error message and will not retrieve an ISIN record. d. If ISIN has not been created in the DSB yet, the system will provide an error message and will not generate an ISIN. Retrieve ISIN Record by ISIN - Users utilize the search function by providing the OTC ISIN, and the DSB returns the record attributes. a. If the user provides the OTC ISIN, the system will return the record template based on the appropriate version of the record template. Search for ISIN Record - User can search for an existing OTC ISIN based on a number of criteria (i.e., ISIN attributes). User needs to use the Lucene search string to search for an ISIN record. **Documentation** The following DSB documents are to be updated: DSB UAT Product Definitions <u>here</u>

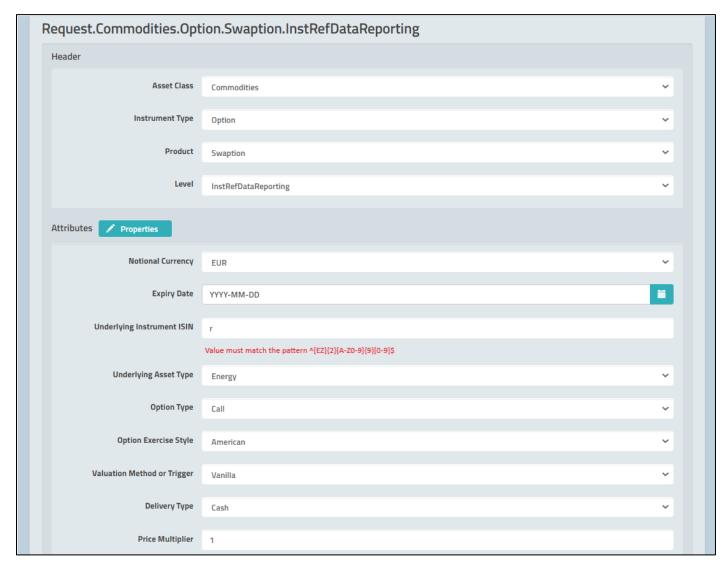
DSB PROD Product Definitions here

References	 <u>UPI Product Definition Validations and Normalizations</u> <u>UPI Product Definition Commodities.Option.Swaption</u>
Comments	 The purpose of this CRF is to keep in line with the UPI testing and conditions. Users should be able to still create a UPI when these validations are implemented. If users can create an ISIN, it should be possible to create its parent UPI. Underlier ISIN must have its parent UPI.

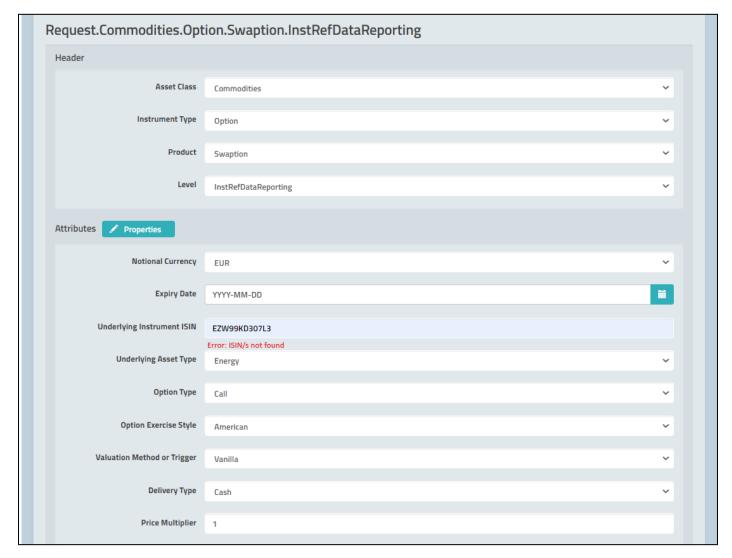
GUI DEFINITION

The following diagram provides a definition of the input screen for the new validation.

1. ISIN 12 characters (Prefix "EZ", 9 Alphanumeric, 1 Numeric check character)



2. If input ISIN does not exist, an error message will apply: "Error: ISIN/s not found".



3. Input Underlying Instrument ISIN must be a valid Commodities Swap product with status not "Deleted".

