Derivatives Service Bureau

DSB PROD Product Definitions

Annex 5 – Commodities

August 2018

Contents

Preface

Change History

Date	Change	Version	Author	Revision Details
13/04/2017	Creation	0.1	Tony Birrell	Initial Version
24/04/2017	Change	0.2	Tony Birrell	Amend Use_Case name
28/04/2017	Change	0.3	Tony Birrell	Added Swaption definition
12/06/2017	Change	0.4	Tony Birrell	Added further product definitions for UAT and amended existing definitions to include Reference rate
23/06/2017	Change	0.4	Tony Birrell	Remove “Provisional” from title page and updated Short Names & Long names
31/07/2017	Change	0.5	Tony Birrell	Amend CFI references to refer to taxonomy Add the reference column to each Product Definition Capture changes implemented in the Aug change window
14/09/2017	Change	0.6	Tony Birrell	Added Taskforce Recommendations
13/10/2017	Change	0.7	Tony Birrell	Added underlying instrument index prop
22/11/2017	Change	0.8	Tony Birrell	Update definitions in PROD
18/12/2017	Change	0.9	Tony Birrell	Updated Mutli-exotics & included Basis
27/08/2018	Change	0.10	Simon Wiltshire	Updated Mutli-Exotic Swap, Option and Forward templates

1 Introduction

The Product Definitions have been classified into four distinct sections:

- Product Definition Selection: The set of fields to define the full population of product specific attributes
- Product Definition Input: The set of attributes the user must input when requesting an ISIN
- Product Definition Defaulted Input: The set of attributes that contain defaulted values which are valid for ISIN creation however the user can engage and select a different value if required
- Product Definition Derived: The set of attributes that can be inferred by the combination of Product Definition Selection & Product Definition Input and will be returned to the user as part of the full ISIN record

The combination of the above 4 sections comprise the full record of the ISIN Engine that will be returned to the requester.

The sections are differentiated by colour:

Product Definition Selection	
Product Definition Input	
Product Definition Defaulted Input	
Product Definition Derived	

The Product Definition Derived & Input sections contain example values for illustrative purposes from SG2 Products. For a full list of possible enumerations please refer to the Enumerations table in the DSB PROD Product Definitions document.

For the marked user input CFI related fields, please refer to the CFI enumerations table in section 2 for all possible enumerations.

2 CFI Enumerations

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

2.1 Commodities Swaps

Char Category	Char Group	Char Att#1	Char Att#2	CharAtt#3	Char Att#4
Category	**Group**	**Underlying asset**	**Return or payout trigger**	**Not Used**	**Delivery**
S Swaps	**T** Commodities	**J** Energy **K** Metals **A** Agriculture **N** Environmental **G** Freight **P** Polypropylene Products **T** Paper **S** Fertilizer **I** Index **Q** Multi Commodity **M** Other	**C** Contract for Difference (CFD) **T** Total Return	X NA	**C** Cash **P** Physical **E** Elect at Settlement

2.2 Commodities Options

Char Category	Char Group	Char Att#1	Char Att#2	CharAtt#3	Char Att#4
Category	**Group**	**Underlying asset**	**Option Style and Type**	**Valuation Method or Trigger**	**Delivery**
H Nonlisted and Complex Listed Options	**T** Commodities	**J** Energy **K** Metals **A** Agriculture **N** Environmental **G** Freight **P** Polypropylene Products **T** Paper **S** Fertilizer **I** Index **Q** Multi Commodity **O** Options **R** Forwards **F** Futures **W** Swap **M** Other	**A** European-Call **B** American-Call **C** Bermudan-Call **D** European-Put **E** American-Put **F** Bermudan-Put **G** European-Chooser **H** American-Chooser **I** Bermudan-Chooser	**V** Vanilla **A** Asian **D** Digital (Binary) **B** Barrier **G** Digital Barrier **L** Lookback **P** Other Path Dependent **M** Other	**C** Cash **P** Physical **E** Elect at Exercise

2.3 Commodities Forwards

Char Category	Char Group	Char Att#1	Char Att#2	CharAtt#3	Char Att#4
Category	**Group**	**Underlying asset**	**Unused**	**Return or payout trigger**	**Delivery**
J Forwards	**T** Commodities	**J** Energy **K** Metals **A** Agriculture **N** Environmental **G** Freight **P** Polypropylene Products **T** Paper **S** Fertilizer **I** Index **B** Basket **M** Other	**X** NA	**C** Contract for Difference (CFD) **F** Forward price of underlying instrument	**C** Cash **P** Physical

3 Commodities Taskforce Recommendations

The following list of recommendations were agreed by the Commodities taskforce and should be considered as direction that the industry should follow to ensure consistent interpretation of the Product Definitions and associated attributes.

Attribute	Recommendation
Base Product	Where exact mapping does not exist use Base Product ‘Other’ and the specific Reference Rate to ensure a unique ISIN
Final Price Type	Select the corresponding Final Price Type if it matches to the Reference Rate selected If there are no corresponding values then ‘Other’ should be selected For basis instruments, following alphabetical normalisation, users should select the Final Price type that corresponds to the first leg Reference rate
Normalisation	Base Product and Other Base product should be normalised alphabetically
Notional Currency	Use settlement currency of the trade
Reference Rate	2015 Draft ISDA 2.0 Taxonomy to be used, optional field Select ‘Other’ where a specific value does not exist
Return or Payout Trigger	‘Contract for Difference (CFD)’ should be the default selection for Commodity Swaps ‘Forward Price of an Underlying Instrument’ should be the default selection for Commodity Forwards
Transaction Type	No validation should be applied here, all RTS 23 values available
Underlying Instrument Index	Mandatory field

Note to Users: RTS 23 has defined the hierarchy of Base Product + Sub-Product + Additional Sub-Product that yield acceptable product combinations for creating a valid ISIN. Users must ensure that this hierarchy is followed.

4 Product Definitions

4.1 Instrument Matrix

The below is based on the products identified as part of the ISDA 2.0 taxonomy

The DSB has provided examples below of Swap, Forward, Option and Swaption products which are relevant for all Commodity Products listed within the ISO enumerations

#	Asset Class	Commodity	Sub-Commodity	Instrument type	DSB Product Definition Name
1	Commodity	Energy	NaturalGas	Swap	Swap
2	Commodity	Energy	NaturalGas	Swap	Basis_Swap
3	Commodity	Energy	NaturalGas	Swap	Multi_Exotic_Swap
4	Commodity	Energy	NaturalGas	Option	Option
5	Commodity	Energy	NaturalGas	Option	Multi_Exotic_Option
6	Commodity	Energy	NaturalGas	Option	Swaption
7	Commodity	Energy	NaturalGas	Forward	Forward
8	Commodity	Energy	NaturalGas	Forward	Multi_Exotic_Forward

4.2 Swap Product Definition

Section	ISO Attributes	NATIVE ISO Example Values	ESMA Mapping	CFI Char
Product Definition Selection	Asset Class	T - Commodities	CFI/2nd letter	Group
	Instrument Type	S - Swap	CFI/1st letter	Category
	Product	Swap		
	Level	InstRefDataReporting		
Product Definition Input	Notional Currency	GBP	RTS23/Field13	
	Expiry date	2017-12-31	RTS23/Field24	
	Return or Payout Trigger	C - Contract for Difference	CFI/4th Swaps/5th Fwds	Att#2
	Delivery type|	C - CASH	RTS23/Field34; CFI/6th letter	Att#4
	Base Product	NRGY	RTS23/Field35	
	Sub Product	NGAS	RTS23/Field36	
	Additional Sub Product	GASP	RTS23/Field37	
	Transaction Type	SWAP	RTS23/Field38	
	Final Price type	OTHR	RTS23/Field39	
	Reference Rate	NATURAL GAS-CHICAGO CITYGATES-DAY AHEAD-ICE	DSB	
Defaulted Input	Price Multiplier	1	RTS23/Field25	
Product Definition Derived	ISIN Status	New	DSB	
	Status Reason		DSB	
	Last Update DateTime	2017-07-31T12:00:00	DSB	
	Version	1	DSB	
	Parent	<null>	DSB	
	Identification	ISIN	RTS23/Field1	
	Full Name	Commodities Swap NRGY NGAS GASP GBP 20171231	RTS23/Field2	
	Classification Type	STJCXC	RTS23/Field3	
	Commodity Derivative Indicator	TRUE	RTS23/Field4	
	Issuer or operator of the trading venue identifier	NA	RTS23/Field5	
	Short Name	NA/Swap NRGY GASP GBP 20171231[1]	RTS23/Field7	
	Underlying Asset type	J - Energy	CFI/3rd letter	Att#1

[1] Preliminary value – format & content of FISN currently under review

4.3 Basis_Swap Product Definition

Section	ISO Attributes	NATIVE ISO Example Values	ESMA Mapping	CFI Char
Product Definition Selection	Asset Class	T - Commodities	CFI/2nd letter	Group
	Instrument Type	S - Swap	CFI/1st letter	Category
	Product	Basis_Swap		
	Level	InstRefDataReporting		
Product Definition Input	Notional Currency	GBP	RTS23/Field13	
	Expiry date	2017-12-31	RTS23/Field24	
	Return or Payout Trigger	C - Contract for Difference	CFI/4th Swaps/5th Fwds	Att#2
	Delivery type	C - CASH	RTS23/Field34; CFI/6th letter	Att#4
	Base Product	NRGY	RTS23/Field35	
	Sub Product	NGAS	RTS23/Field36	
	Additional Sub Product	GASP	RTS23/Field37	
	Other Base Product	NRGY		
	Other Sub Product	NGAS		
	Other Additional Sub Product	NCGG		
	Transaction Type	SWAP	RTS23/Field38	
	Final Price type	OTHR	RTS23/Field39	
	Reference Rate	NATURAL GAS-CHICAGO CITYGATES-DAY AHEAD-ICE		
	Other Reference Rate	NATURAL GAS-NYMEX		
Defaulted Input	Price Multiplier	1	RTS23/Field25	
Product Definition Derived	ISIN Status	New	DSB	
	Parent	<null>	DSB	
	Status Reason		DSB	
	Last Update DateTime	2017-07-31T12:00:00	DSB	
	Version	1	DSB	
	Identification	ISIN	RTS23/Field1	
	Full Name	Commodities Swap Basis_Swap NRGY NGAS GASP NRGY NGAS NCGG GBP 20171231	RTS23/Field2	
	Classification Type	STQCXC	RTS23/Field3	
	Commodity Derivative Indicator	TRUE	RTS23/Field4	
	Issuer or operator of the trading venue identifier	NA	RTS23/Field5	
	Short Name	NA/Swap NRGY GASP GBP 20171231	RTS23/Field7	
	Underlying Asset type	Q - Multi Commodity	CFI/3rd letter	Att#1

4.4 Multi_Exotic_Swap Product Definition

Section	ISO Attributes	NATIVE ISO Example Values	ESMA Mapping	CFI Char
Product Definition Selection	Asset Class	T - Commodities	CFI/2nd letter	Group
	Instrument Type	S - Swap	CFI/1st letter	Category
	Product	Multi_Exotic_Swap		
	Level	InstRefDataReporting		
Product Definition Input	Notional Currency	GBP	RTS23/Field13	
	Expiry date	2017-12-31	RTS23/Field24	
	Base Product	eg: NRGY, MCEX	RTS23/Field35	
	Underlying Instrument Index	*Optional* : OTHER	RTS23/Field28	
	Underlying Instrument Index Prop	*Optional (array)*	DSB	
	Return or Payout Trigger	C - Contract for Difference	CFI/4th Swaps/5th Fwds	Att#2
	Delivery type	C - CASH	RTS23/Field34; CFI/6th letter	Att#4
	Transaction Type	SWAP	RTS23/Field38	
	Final Price type	OTHR	RTS23/Field39	
	Reference Rate	*Optional (array)* : OIL-BRENT/BFOE-ARGUS CRUDE, OIL-BRENT/BFOE-PLATTS MARKETWIRE etc	DSB	
Defaulted Input	Price Multiplier	1	RTS23/Field25	
Product Definition Derived	ISIN Status	New	DSB	
	Parent	<null>	DSB	
	Status Reason		DSB	
	Last Update DateTime	2017-07-31T12:00:00	DSB	
	Version	1	DSB	
	Identification	ISIN	RTS23/Field1	
	Full Name	Commodities Multi_Exotic_Swap MCEX GBP 20171231	RTS23/Field2	
	Classification Type	STQCXC	RTS23/Field3	
	Commodity Derivative Indicator	TRUE	RTS23/Field4	
	Issuer or operator of the trading venue identifier	NA	RTS23/Field5	
	Short Name	NA/Swap MCEX GBP 20171231	RTS23/Field7	
	ISO Underlying Instrument Index	Multiple Indices	RTS23/Field28	
	Base Product	MCEX	RTS23/Field35	
	Sub Product	<null>	RTS23/Field36	
	Additional Sub Product	<null>	RTS23/Field37	
	Underlying Asset type	Q - Multi commodity	CFI/3rd letter	Att#1

4.5 Option Product Definition

Section	ISO Attributes	NATIVE ISO Example Values	ESMA Mapping	CFI Char
Product Definition Selection	Asset Class	T - Commodities	CFI/2nd letter	Group
	Instrument Type	H - Option	CFI/1st letter	Category
	Product	Option		
	Level	InstRefDataReporting		
Product Definition Input	Notional Currency	GBP	RTS23/Field13	
	Expiry date	2017-12-31	RTS23/Field24	
	Option type	Call	RTS23/Field30 / CFI 4th Opts	Att#2
	Option exercise style	American	RTS23/Field33 / CFI 4th Opts	Att#2
	Valuation Method or Trigger	V - Vanilla	CFI/5th Opts	Att#3
	Delivery type	C - CASH	RTS23/Field34; CFI/6th letter	Att#4
	Base Product	NRGY	RTS23/Field35	
	Sub Product	NGAS	RTS23/Field36	
	Additional Sub Product	GASP	RTS23/Field37	
	Transaction Type	OPTN	RTS23/Field38	
	Final Price type	OTHR	RTS23/Field39	
	Reference Rate	NATURAL GAS-CHICAGO CITYGATES-DAY AHEAD-ICE	DSB	
Defaulted Input	Price Multiplier	1	RTS23/Field25	
Product Definition Derived	ISIN Status	New	DSB	
	Status Reason		DSB	
	Last Update DateTime	2017-07-31T12:00:00	DSB	
	Version	1	DSB	
	Parent	<null>	DSB	
	Identification	ISIN	RTS23/Field1	
	Full Name	Commodities Option NRGY NGAS GASP GBP 20171231	RTS23/Field2	
	Classification Type	HTJBVC	RTS23/Field3	
	Commodity Derivative Indicator	TRUE	RTS23/Field4	
	Issuer or operator of the trading venue identifier	NA	RTS23/Field5	
	Short Name	NA/O NRGY GASP Call GBP 20171231	RTS23/Field7	
	Underlying Asset type	J - Energy	CFI/3rd letter	Att#1

4.6 Multi_Exotic_Option Product Definition

Section	ISO Attributes	NATIVE ISO Example Values	ESMA Mapping	CFI Char
Product Definition Selection	Asset Class	T - Commodities	CFI/2nd letter	Group
	Instrument Type	H - Option	CFI/1st letter	Category
	Product	Multi_Exotic_Option		
	Level	InstRefDataReporting		
Product Definition Input	Notional Currency	GBP	RTS23/Field13	
	Expiry date	2017-12-31	RTS23/Field24	
	Base Product	eg: NRGY, MCEX	RTS23/Field35	
	Underlying Instrument Index	*Optional* : OTHER	RTS23/Field28	
	Underlying Instrument Index Prop	*Optional (array)*	DSB	
	Option type	Call	RTS23/Field30 / CFI 4th Opts	Att#2
	Option exercise style	American	RTS23/Field33 / CFI 4th Opts	Att#2
	Valuation Method or Trigger	V - Vanilla	CFI/5th Opts	Att#3
	Delivery type	C - CASH	RTS23/Field34; CFI/6th letter	Att#4
	Transaction Type	OPTN	RTS23/Field38	
	Final Price type	OTHR	RTS23/Field39	
	Reference Rate	*Optional (array) :* OIL-BRENT/BFOE-ARGUS CRUDE, OIL-BRENT/BFOE-PLATTS MARKETWIRE etc	DSB	
Defaulted Input	Price Multiplier	1	RTS23/Field25	
Product Definition Derived	ISIN Status	New	DSB	
	Status Reason		DSB	
	Last Update DateTime	2017-07-31T12:00:00	DSB	
	Version	1	DSB	
	Parent	<null>	DSB	
	Identification	ISIN	RTS23/Field1	
	Full Name	Commodities Multi_Exotic_Option MCEX GBP 20171231	RTS23/Field2	
	Classification Type	HTQBVC	RTS23/Field3	
	Commodity Derivative Indicator	TRUE	RTS23/Field4	
	Issuer or operator of the trading venue identifier	NA	RTS23/Field5	
	Short Name	NA/O MCEX Call GBP 20171231	RTS23/Field7	
	ISO Underlying Instrument Index	Multiple Indices	RTS23/Field28	
	Base Product	MCEX	RTS23/Field35	
	Sub Product	<null>	RTS23/Field36	
	Additional Sub Product	<null>	RTS23/Field37	
	Underlying Asset type	Q - Multi commodity	CFI/3rd letter	Att#1

4.7 Swaption Product Definition

Section	ISO Attributes	NATIVE ISO Example Values	ESMA Mapping	CFI Char
Product Definition Selection	Asset Class	T - Commodities	CFI/2nd letter	Group
	Instrument Type	H - Option	CFI/1st letter	Category
	Product	Swaption		
	Level	InstRefDataReporting		
Product Definition Input	Notional Currency	GBP	RTS23/Field13	
	Expiry date	2017-12-31	RTS23/Field24	
	Underlying instrument ISIN	EZ1122334455	RTS23/Field26	
	Underlying Asset type	J - Energy	CFI/3rd letter	Att#1
	Option type	Call	RTS23/Field30 / CFI 4th Opts	Att#2
	Option exercise style	American	RTS23/Field33 / CFI 4th Opts	Att#2
	Valuation Method or Trigger	V - Vanilla	CFI/5th Opts	Att#3
	Delivery type	C - CASH	RTS23/Field34; CFI/6th letter	Att#4
Defaulted Input	Price Multiplier	1	RTS23/Field25	
Product Definition Derived	ISIN Status	New	DSB	
	Status Reason		DSB	
	Last Update DateTime	2017-07-31T12:00:00	DSB	
	Version	1	DSB	
	Parent	<null>	DSB	
	Identification	ISIN	RTS23/Field1	
	Full Name	Commodities Swaption EZ1122334455 GBP 20171231	RTS23/Field2	
	Classification Type	HTJBVC	RTS23/Field3	
	Commodity Derivative Indicator	TRUE	RTS23/Field4	
	Issuer or operator of the trading venue identifier	NA	RTS23/Field5	
	Short Name	NA/O Swt Call GBP 20171231	RTS23/Field7	

4.8 Forward Product Definition

Section	ISO Attributes	NATIVE ISO Example Values	ESMA Mapping	CFI Char
Product Definition Selection	Asset Class	T - Commodities	CFI/2nd letter	Group
	Instrument Type	J - Forward	CFI/1st letter	Category
	Product	Forward		
	Level	InstRefDataReporting		
Product Definition Input	Notional Currency	GBP	RTS23/Field13	
	Expiry date	2017-12-31	RTS23/Field24	
	Return or Payout Trigger	F - Forward price of underlying instrument	CFI/4th Swaps/5th Fwds	Att#3
	Delivery type	C - CASH	RTS23/Field34; CFI/6th letter	Att#4
	Base Product	NRGY	RTS23/Field35	
	Sub Product	NGAS	RTS23/Field36	
	Additional Sub Product	GASP	RTS23/Field37	
	Transaction Type	FUTR	RTS23/Field38	
	Final Price type	OTHR	RTS23/Field39	
	Reference Rate	NATURAL GAS-CHICAGO CITYGATES-DAY AHEAD-ICE		
Defaulted Input	Price Multiplier	1	RTS23/Field25	
Product Definition Derived	ISIN Status	New	DSB	
	Status Reason		DSB	
	Last Update DateTime	2017-07-31T12:00:00	DSB	
	Version	1	DSB	
	Parent	<null>	DSB	
	Identification	ISIN	RTS23/Field1	
	Full Name	Commodities Forward NRGY NGAS GASP GBP 20171231	RTS23/Field2	
	Classification Type	JTJXFC	RTS23/Field3	
	Commodity Derivative Indicator	TRUE	RTS23/Field4	
	Issuer or operator of the trading venue identifier	NA	RTS23/Field5	
	Short Name	NA/Fwd NRGY GASP GBP 20171231	RTS23/Field7	
	Underlying Asset type	J - Energy	CFI/3rd letter	Att#1

4.9 Multi_Exotic_Forward Product Definition

Section	ISO Attributes	NATIVE ISO Example Values	ESMA Mapping	CFI Char
Product Definition Selection	Asset Class	T - Commodities	CFI/2nd letter	Group
	Instrument Type	J - Forward	CFI/1st letter	Category
	Product	Multi_Exotic_Forward		
	Level	InstRefDataReporting		
Product Definition Input	Notional Currency	GBP	RTS23/Field13	
	Expiry date	2017-12-31	RTS23/Field24	
	Base Product	eg: NRGY, MCEX	RTS23/Field35	
	Underlying Instrument Index	*Optional* : OTHER	RTS23/Field28	
	Underlying Instrument Index Prop	*Optional (array)*	DSB	
	Return or Payout Trigger	F - Forward price of underlying instrument	CFI/4th Swaps/5th Fwds	Att#3
	Delivery type	C - CASH	RTS23/Field34; CFI/6th letter	Att#4
	Transaction Type	FUTR	RTS23/Field38	
	Final Price type	OTHR	RTS23/Field39	
	Reference Rate	*Optional (array) :* OIL-BRENT/BFOE-ARGUS CRUDE, OIL-BRENT/BFOE-PLATTS MARKETWIRE etc	DSB	
Defaulted Input	Price Multiplier	1	RTS23/Field25	
Product Definition Derived	ISIN Status	New	DSB	
	Status Reason		DSB	
	Last Update DateTime	2017-07-31T12:00:00	DSB	
	Version	1	DSB	
	Parent	<null>	DSB	
	Identification	ISIN	RTS23/Field1	
	Full Name	Commodities Multi_Exotic_Forward MCEX GBP 20171231	RTS23/Field2	
	Classification Type	JTMXFC	RTS23/Field3	
	Commodity Derivative Indicator	TRUE	RTS23/Field4	
	Issuer or operator of the trading venue identifier	NA	RTS23/Field5	
	Short Name	NA/Fwd MCEX GBP 20171231	RTS23/Field7	
	Underlying Instrument Index	Multiple Indices	RTS23/Field28	
	Base Product	MCEX	RTS23/Field35	
	Sub Product	<null>	RTS23/Field36	
	Additional Sub Product	<null>	RTS23/Field37	
	Underlying Asset type	M - Other	CFI/3rd letter	Att#1