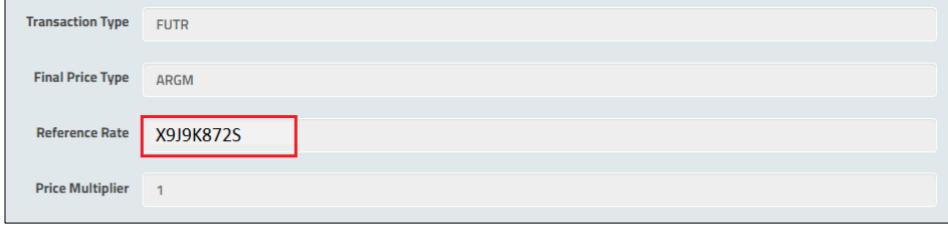


**Derivatives Service Bureau**  
**CHANGE REQUEST FORM**

Version	State	Author	Date	Description
1	Draft	M. Surop	23 Jan 2024	Initial Document
2	Final	M. Surop	04 Apr 2024	Final

<b>Title</b>		<b>CMDTY: Commodities Reference Price: Add Digital Asset entries to CommoditiesReferenceRate.json</b>			
<b>Background</b>		At present, the current codeset of Commodities Reference Prices, i.e., CommoditiesReferenceRate.json contains enumerations sourced from ISDA as per 2005 ISDA Commodity Definitions.		DSB-ID	DSB-3401
		Following this, the PC has agreed to extend the current enumeration list for Commodities Reference Prices (CRP) wherein new Digital Asset entries will be added to the existing codeset of Commodities Reference Prices. The introduction of new Digital Asset entries will enhance the user experience as users will be able to choose Digital Asset as underlying.		Service	UPI / OTC ISIN
		This change will indirectly impact UPI and OTC ISIN product templates that make use of CommoditiesReferenceRate.json.		Priority	Major
				Type	Enumeration
				Owner	M. Surop
				Version	2
				State	Final
<b>Terms of Reference</b>		<b>Scope</b>	<b>In Scope:</b> <ul style="list-style-type: none"> <li>• Addition of Digital Asset entries to the CommoditiesReferenceRate.json.</li> <li>• Indirectly impact UPI / OTC ISIN Request and Record templates for Commodities Standard and Non-Standard products that make use of CommoditiesReferenceRate.json.</li> </ul> <b>Out of Scope:</b> <ul style="list-style-type: none"> <li>• Product Definition templates (Request and Record) that do not make use of CommoditiesReferenceRate.json.</li> </ul>		
		<b>Assumption</b>	<ul style="list-style-type: none"> <li>• There is no difference in the behaviour expected with the existing values.</li> </ul>		
		<b>Requirement</b>	<ul style="list-style-type: none"> <li>• There is a requirement to add Digital Asset entries to the existing CommoditiesReferenceRate.json.</li> <li>• There is a requirement to add Symbol (and possibly the Parent Ledger Short Code) as suffix on each of the Digital Asset entry in the GUI.</li> </ul>		
<b>Change Details</b>		<ol style="list-style-type: none"> <li>1. This change will directly impact <u>CommoditiesReferenceRate.json</u> where enumeration list for Commodities Reference Prices is maintained. Details of Digital Asset entries, including Tool Tip (and value elaboration) and enum_titles are required to be added to the existing CommoditiesReferenceRate.json. Please see Appendix 2.</li> <li>2. For each of the in-scope Request template, the GUI implementation shall include the Symbol (and possibly the Parent Ledger Short Code) as a suffix value in the Digital Asset entries.             <ol style="list-style-type: none"> <li>a. With the use of <b>enum_title</b>, Digital Asset entries in the GUI drop-down menu shall include the Symbol (and possibly the Parent Ledger Short Code) in bracket, e.g.: <b>X9J9K872S (ETH)</b> whereas the Tool Tip (and value elaboration) shall only have the DTI as shown in GUI illustration below. Please see Appendix 1 for the rules of identifying the Symbol (and possibly the Parent Ledger Short Code).</li> </ol> </li> </ol>			

	 <p>b. DSB will return the Digital Asset <b><u>without the Symbol and Parent Ledger Short Code</u></b> in the Reference Rate attribute as part of the Record message as shown in the GUI illustration below:</p> 
	<p>3. The use of Symbol (and possibly the Parent Ledger Short Code) will only impact all GUI users. API users will continue to use the unadjusted enumeration of Commodities Reference Rate as shown in the illustration below:</p> <pre data-bbox="466 990 1229 1356">}, "Attributes": {   "NotionalCurrency": "EUR",   "ExpiryDate": "2023-12-19",   "ReturnorPayoutTrigger": "Contract for Difference (CFD)",   "DeliveryType": "CASH",   "BaseProduct": "AGRI",   "SubProduct": "GROS",   "AdditionalSubProduct": "FWHT",   "TransactionType": "FUTR",   "FinalPriceType": "ARGM",   "ReferenceRate": "X9J9K872S",   "PriceMultiplier": 1 }</pre>
<b>Validation</b>	Not required.
<b>Normalization</b>	Remain unchanged.
<b>Derivation</b>	Remain unchanged.
<b>Product Definition Templates</b>	<p>The following Product Definition templates (Request and Record) that make use of CommoditiesReferenceRate.json are indirectly impacted:</p> <ul style="list-style-type: none"> <li>• Commodities.Forward.Forward</li> <li>• Commodities.Forward.Multi_Exotic_Forward*</li> <li>• Commodities.Forward.Non_Standard</li> <li>• Commodities.Option.Multi_Exotic_Option*</li> <li>• Commodities.Option.Non_Standard</li> <li>• Commodities.Option.Option</li> <li>• Commodities.Swap.Basis_Swap</li> <li>• Commodities.Swap.Multi_Exotic_Swap*</li> <li>• Commodities.Swap.Non_Standard</li> </ul>

	<ul style="list-style-type: none"> <li>• Commodities.Swap.Swap</li> <li>• Other.Forward.Non_Standard</li> <li>• Other.Option.Non_Standard</li> <li>• Other.Other.Non_Standard</li> <li>• Other.Swap.Non_Standard</li> </ul> <p>*In UPI, Multi-Exotic products are assumed to be Basket in all cases. Hence, in accordance with ISO 4914 (UPI), there is no need to define the individual constituent within these templates.</p>	
<b>User Impact?</b>	<b>Yes</b>	Users will need to download the updated CommoditiesReferenceRate.json to access the Digital Asset entries in the DSB enumeration list where Commodities Reference Prices is maintained.
	<b>Versions</b>	The version number of all in-scope Record templates will not be impacted.
<b>Backward Compatibility</b>	There is no backward compatibility issue as change is adding Digital Asset entries to the existing CommoditiesReferenceRate.json.	
<b>Use Cases</b>	<p>For each of the in-scope Product Definition templates:</p> <ul style="list-style-type: none"> <li>• <b>Valid Request:</b> <ol style="list-style-type: none"> <li>1. Select the new enumerated value within the impacted CommoditiesReferenceRate.json.</li> <li>2. Search for products that make use of the updated CommoditiesReferenceRate.json.</li> <li>3. User sends a payload that make use of the updated CommoditiesReferenceRate.json.</li> <li>4. A valid Record message is returned which follows the unchanged derivation functionality.</li> <li>5. For GUI users selecting each of different types where Symbol (and possibly the Parent Ledger Short Code) are made available in the enum_title.</li> <li>6. For API users selecting each of the different types and ensure they are not impacted with this enhancement.</li> </ol> </li> <li>• <b>Invalid Request:</b> <ol style="list-style-type: none"> <li>1. API user sends a payload that does not make use of the updated CommoditiesReferenceRate.json.</li> </ol> </li> </ul>	
<b>Documentation</b>	<p>The following DSB Enumeration Document is to be updated:</p> <ul style="list-style-type: none"> <li>• <a href="#">Enumeration Definition Commodities Reference Prices</a></li> <li>• <a href="#">ISIN Indices DSB Product Definitions Annex 7</a></li> </ul>	
<b>References</b>	<ul style="list-style-type: none"> <li>• <a href="#">Digital Token Identifier Foundation</a></li> <li>• <a href="#">Coin Market Cap</a></li> </ul>	
<b>Comments</b>	<ul style="list-style-type: none"> <li>• There is an existing JIRA ticket under DSB-2687 with OPEN state for adding new values of Commodities Reference Price where structure is focused on its geographic identifications. At present, the DSB is waiting for an agreed approach to the addition of CRPs.</li> <li>• The Symbol (and possibly the Parent Ledger Short Code) is made available as an indicative visual aid for GUI users only.</li> <li>• The addition of DTI in the CommoditiesReferenceRate.json shall be after the last enumeration value of Commodities Reference Prices.</li> </ul>	

## Appendix 1

The table below provides the necessary information for Digital Asset entries that are required to be added to the existing CommoditiesReferenceRate.json.

- **DTI:** The Digital Token Identifier.
- **CMC Name:** The name of the Digital Token Identifier taken from the [Coin Market Cap](#).
- **CMC Symbol:** The symbol of the Digital Token Identifier taken from the [Coin Market Cap](#).
- **DTI Short Code(s):** The Short Name(s) of the Digital Token Identifier.
- **DTI Long Name:** The Long Name of the Digital Token Identifier.
- **DTI Type:** The type of the Digital Token Identifier, i.e., Native or Auxiliary.
- **Parent Ledger:** The Parent Ledger of the Digital Token Identifier.
- **Ledger Short Code:** Short Code of the Parent Ledger.
- **GUI Entries:** DTI enumeration value in the GUI dropdown menu.

The choice of DTI Symbol is not precise due to its nature. However, it only provides guidance to all GUI users and is based on the symbol supported in the DTI and/or the symbol provided in [Coin Market Cap](#). The code provided for the GUI users made up of Short Code and possibly the Ledger Short Code is based on the following rules:

#	Rules
1	If there is only one value in DTI Short Code, then use the DTI Short Code.
2	If there are multiple values in DTI Short Code(s); then use the CMC Symbol that matches one of the DTI Short Code(s).
3	If none of the DTI Short Codes match the CMC Symbol, then use the CMC Symbol.
4	If DTI Type is Native, then use the chosen Short Code.
5	If DTI Type is Auxiliary and is a member of Fully Fungible Group (FFG), or it would be deemed useful to include the Ledger, then the Parent Ledger Short Code should be included alongside the chosen Short Code.
6	For all other Auxiliary, then use the chosen Short Code.

#	DTI	CMC Name	CMC Symbol	Ledger	DTI Short Code(s)	DTI Long Name	DTI Type	Parent Ledger	Ledger Short Code	GUI Entries
1	20J63Z4N3	Solana	SOL	Solana	SOL	Solana SOL	Native	20J63Z4N3	SOL	20J63Z4N3 (SOL)
2	24VV95T9F	Monero	XMR	Monero	XMR	Monero XMR	Native	24VV95T9F	XMR	24VV95T9F (XMR)
3	26W7JCWZJ	Lido DAO	LDO	Ethereum	LDO	Lido DAO Token	Auxiliary	X9J9K872S	ETH	26W7JCWZJ (LDO)
4	29DD3R2SH	Tether USDt	USDT	Near Protocol	USDt	Tether USD	Auxiliary	DC83NXWML	NEAR	29DD3R2SH (USDt / NEAR)
5	2L8HS2MNP	Bitcoin SV	BSV	Bitcoin SV	BSV	Bitcoin SV	Native	2L8HS2MNP	BSV	2L8HS2MNP (BSV)
6	2QWSBDMNC	Tether USDt	USDT	Ethereum	USDT	Tether USD	Auxiliary	X9J9K872S	ETH	2QWSBDMNC (USDT / ETH)
7	3ZW8R4HSD	Conflux	CFX	Conflux	CFX	Conflux	Native	3ZW8R4HSD	CFX	3ZW8R4HSD (CFX)
8	41W3DC2R4	BUSD	BUSD	TRON	BUSD	Binance USD	Auxiliary	993D8X1FB	TRX	41W3DC2R4 (BUSD / TRX)
9	45J6XJX7H	USDC	USDC	Avalanche	USDC	USD Coin	Auxiliary	M3Z631TN4	AVAX	45J6XJX7H (USDC / AVAX)
10	46VQ8B7LM	Immutable	IMX	Ethereum	IMX	Immutable X	Auxiliary	X9J9K872S	ETH	46VQ8B7LM (IMX)
11	4GNLB78VC	TrueUSD	TUSD	Ethereum	TUSD	TrueUSD	Auxiliary	X9J9K872S	ETH	4GNLB78VC (TUSD / ETH)
12	4H95J0R2X	Bitcoin	BTC	Bitcoin	BTC;XBT	Bitcoin	Native	4H95J0R2X	BTC	4H95J0R2X (BTC)
13	5R3XFPZSM	USDC	USDC	Solana	USDC	USD Coin	Auxiliary	20J63Z4N3	SOL	5R3XFPZSM (USDC / SOL)
14	6QBMW6DQZ	Tether USDt	USDT	Solana	USDT	USDT	Auxiliary	20J63Z4N3	SOL	6QBMW6DQZ (USDT / SOL)
15	6WNRFWT13	Render	RNDR	Ethereum	RNDR	Render Token	Auxiliary	X9J9K872S	ETH	6WNRFWT13 (RNDR)
16	75T0GP5WJ	Tether USDt	USDT	Bitcoin	USDT	USD Tether	Auxiliary	4H95J0R2X	BTC	75T0GP5WJ (USDT / BTC)
17	7744P2WPH	The Graph	GRT	Ethereum	GRT	Graph Token	Auxiliary	X9J9K872S	ETH	7744P2WPH (GRT)
18	7KL6LCVWQ	Internet Computer	ICP	Internet Computer	ICP	Internet Computer Token	Native	7KL6LCVWQ	ICP	7KL6LCVWQ (ICP)
19	7VTRKSC7S	Tezos	XTZ	Tezos	XTZ	Tezos	Native	7VTRKSC7S	XTZ	7VTRKSC7S (XTZ)
20	820B7G1NL	Dogecoin	DOGE	Dogecoin	DOGE	Dogecoin	Native	820B7G1NL	DOGE	820B7G1NL (DOGE)
21	85MP572L7	BNB	BNB	Binance Beacon Chain	BNB	Binance Beacon Chain	Native	85MP572L7	BNB	85MP572L7 (BNB)
22	8SBB81M2M	Chainlink	LINK	Ethereum	LINK	ChainLink Token	Auxiliary	X9J9K872S	ETH	8SBB81M2M (LINK)
23	93K9SQP62	Arbitrum	ARB	Arbitrum	ARB	Arbitrum	Auxiliary	PXW7VQ0RC	ARB	93K9SQP62 (ARB)
24	993D8X1FB	TRON	TRX	TRON	TRX	TRON TRX	Native	993D8X1FB	TRX	993D8X1FB (TRX)
25	B16J8HBKK	The Sandbox	SAND	Ethereum	SAND	SAND	Auxiliary	X9J9K872S	ETH	B16J8HBKK (SAND)
26	B8DH60MPJ	THORChain	RUNE	THORChain	RUNE	THORChain	Native	B8DH60MPJ	RUNE	B8DH60MPJ (RUNE)
27	BDFVNSJD2	BUSD	BUSD	Polygon	BUSD	BUSD Token	Auxiliary	RQWW6J6K0	MATIC	BDFVNSJD2 (BUSD / MATIC)
28	BHQ70PZ11	Tether USDt	USDT	Bitcoin Cash	USDt	Tether USDt	Auxiliary	J9K583ZGG	BCH	BHQ70PZ11 (USDt / BCH)
29	C4SRNZD8K	Stellar	XLM	Stellar	XLM	Stellar Lumen	Native	C4SRNZD8K	XLM	C4SRNZD8K (XLM)
30	C9N6ZVN7S	Tether USDt	USDT	TRON	USDT	USD Tether	Auxiliary	993D8X1FB	TRX	C9N6ZVN7S (USDT / TRX)
31	CCQZQXFDC	XDC Network	XDC	XinFin Network	XDC	XinFin Network	Native	CCQZQXFDC	XDC	CCQZQXFDC (XDC)
32	CK9PW1MFH	USDC	USDC	Ethereum	USDC	USD Coin	Auxiliary	X9J9K872S	ETH	CK9PW1MFH (USDC / ETH)
33	CNKWNW4ZD	OKB	OKB	Ethereum	OKB	OKB	Auxiliary	X9J9K872S	ETH	CNKWNW4ZD (OKB)
34	D00BX2H21	Cronos	CRO	Ethereum	CRO	CRO	Auxiliary	X9J9K872S	ETH	D00BX2H21 (CRO)
35	D94114L7T	Synthetix	SNX	Ethereum	SNX	Synthetix Network Token	Auxiliary	X9J9K872S	ETH	D94114L7T (SNX)
36	DC83NXWML	NEAR Protocol	NEAR	NEAR Protocol	NEAR	NEAR Protocol	Native	DC83NXWML	NEAR	DC83NXWML (NEAR)

#	DTI	CMC Name	CMC Symbol	Ledger	DTI Short Code(s)	DTI Long Name	DTI Type	Parent Ledger	Ledger Short Code	GUI Entries
37	DDWNJQZZH	BUSD	BUSD	Binance Beacon Chain	BUSD	Binance USD	Auxiliary	85MP572L7	BNB	DDWNJQZZH (BUSD / BNB)
38	DHQPD433B	Hedera	HBAR	Hedera Hashgraph	HBAR	Hedera Hashgraph HBAR	Native	DHQPD433B	HBAR	DHQPD433B (HBAR)
39	DLFDPGMTP	TrueUSD	TUSD	Avalanche	TUSD	TrueUSD	Auxiliary	M3Z631TN4	AVAX	DLFDPGMTP (TUSD / AVAX)
40	DWBBXD2F1	USDC	USDC	Stellar	USDC	USD Coin	Auxiliary	C4SRNZD8K	XLM	DWBBXD2F1 (USDC / XLM)
41	DWR00Z22R	Optimism	OP	Optimism	OP	Optimism	Auxiliary	VCW0C7W66	OP	DWR00Z22R (OP)
42	F6W5TF66L	Decentraland	MANA	Ethereum	MANA	Decentraland MANA	Auxiliary	X9J9K872S	ETH	F6W5TF66L (MANA)
43	FDBG7XVCM	BUSD	BUSD	Avalanche	BUSD	BUSD Token	Auxiliary	M3Z631TN4	AVAX	FDBG7XVCM (BUSD / AVAX)
44	GWQWXVV7J	Ethereum Classic	ETC	Ethereum Classic	ETC	Ethereum Classic Ether	Native	GWQWXVV7J	ETC	GWQWXVV7J (ETC)
45	HFX40B3W9	Flow	FLOW	Flow	FLOW	Flow	Native	HFX40B3W9	FLOW	HFX40B3W9 (FLOW)
46	HWGL1C2CK	Cardano	ADA	Cardano	ADA	Cardano ADA	Native	HWGL1C2CK	ADA	HWGL1C2CK (ADA)
47	J04F1K9H3	Bitget Token	BGB	Ethereum	BGB	Bitget Token	Auxiliary	X9J9K872S	ETH	J04F1K9H3 (BGB)
48	J51DXB76N	Cosmos	ATOM	Cosmos	ATOM	Cosmos ATOM	Native	J51DXB76N	ATOM	J51DXB76N (ATOM)
49	J5J62BBD7	Kava	KAVA	KAVA	KAVA	KAVA	Native	J5J62BBD7	KAVA	J5J62BBD7 (KAVA)
50	J9K583ZGG	Bitcoin Cash	BCH	Bitcoin Cash	BCH;BCC;XBC	Bitcoin Cash	Native	J9K583ZGG	BCH	J9K583ZGG (BCH)
51	JH9TPZQ38	Theta Network	THETA	THETA	THETA	THETA	Auxiliary	MN022525F	THETA	JH9TPZQ38 (THETA)
52	JVVVH6K29	TrueUSD	TUSD	Binance Beacon Chain	TUSD	TrueUSD	Auxiliary	85MP572L7	BNB	JVVVH6K29 (TUSD / BNB)
53	K1KRW1TFQ	Mantle	MNT	Ethereum	MNT	Mantle	Auxiliary	X9J9K872S	ETH	K1KRW1TFQ (MNT)
54	K8B662X5Z	Filecoin	FIL	Filecoin	FIL	Filecoin	Native	K8B662X5Z	FIL	K8B662X5Z (FIL)
55	KPXS8WST3	UNUS SED LEO	LEO	Ethereum	LEO	Bitfinex LEO Token	Auxiliary	X9J9K872S	ETH	KPXS8WST3 (LEO)
56	L6GTZC9G4	XRP	XRP	Ripple	XRP	Ripple XRP	Native	L6GTZC9G4	XRP	L6GTZC9G4 (XRP)
57	LGWSMX228	Injective	INJ	Ethereum	INJ	Injective Token	Auxiliary	X9J9K872S	ETH	LGWSMX228 (INJ)
58	M3Z631TN4	Avalanche	AVAX	Avalanche	AVAX	Avalanche AVAX	Native	M3Z631TN4	AVAX	M3Z631TN4 (AVAX)
59	M4FLVF81Q	EOS	EOS	EOS Blockchain	EOS	EOS	Native	M4FLVF81Q	EOS	M4FLVF81Q (EOS)
60	M8G59S1ZR	USDC	USDC	Algorand	USDC	USDC	Auxiliary	M8Z9JSG9Q	ALGO	M8G59S1ZR (USDC / ALGO)
61	M8Z9JSG9Q	Algorand	ALGO	Algorand	ALGO	Algorand	Native	M8Z9JSG9Q	ALGO	M8Z9JSG9Q (ALGO)
62	MJ4JJGJ97	BUSD	BUSD	Ethereum	BUSD	Binance USD	Auxiliary	X9J9K872S	ETH	MJ4JJGJ97 (BUSD / ETH)
63	N19HT013T	TrueUSD	TUSD	TRON	TUSD	TrueUSD	Auxiliary	993D8X1FB	TRX	N19HT013T (TUSD / TRX)
64	N25N2VFT7	Quant	QNT	Ethereum	QNT	Quant	Auxiliary	X9J9K872S	ETH	N25N2VFT7 (QNT)
65	N7KDZ7X0F	Neo	NEO	Neo	NEO	Neo	Auxiliary	JNXP7GLQF	NEO	N7KDZ7X0F (NEO)
66	NJ7X4BCTD	Tether USDt	USDT	Avalanche	USDt	TetherToken	Auxiliary	M3Z631TN4	AVAX	NJ7X4BCTD (USDt / AVAX)
67	NN418T24K	VeChain	VET	VeChain	VET	VeChain	Native	NN418T24K	VET	NN418T24K (VET)
68	P1FTS4328	Uniswap	UNI	Ethereum	UNI	Uniswap	Auxiliary	X9J9K872S	ETH	P1FTS4328 (UNI)
69	P5B46MFPP	Polkadot	DOT	Polkadot	DOT	Polkadot DOT	Native	P5B46MFPP	DOT	P5B46MFPP (DOT)
70	P7H2X1B9H	USDC	USDC	Flow	USDC	USD Coin	Auxiliary	HFX40B3W9	FLOW	P7H2X1B9H (USDC / FLOW)
71	PDX13MN94	Tether USDt	USDT	Algorand	USDt	Tether USDt	Auxiliary	M8Z9JSG9Q	ALGO	PDX13MN94 (USDt / ALGO)
72	PJ1BC8W44	Tether USDt	USDT	Polygon	pUSDt	TetherToken	Auxiliary	RQWW6J6K0	MATIC	PJ1BC8W44 (pUSDt / MATIC)

#	DTI	CMC Name	CMC Symbol	Ledger	DTI Short Code(s)	DTI Long Name	DTI Type	Parent Ledger	Ledger Short Code	GUI Entries
73	QBZLT5MT1	Toncoin	TON	Toncoin	TON	Toncoin	Native	QBZLT5MT1	TON	QBZLT5MT1 (TON)
74	QD7K0JHQ8	Maker	MKR	Ethereum	MKR	Maker	Auxiliary	X9J9K872S	ETH	QD7K0JHQ8 (MKR)
75	QP2QBFRQ2	First Digital USD	FDUSD	Ethereum	FDUSD	First Digital USD	Auxiliary	X9J9K872S	ETH	QP2QBFRQ2 (FDUSD / ETH)
76	RH8F54RM6	MultiversX	EGLD	MultiversX	EGLD	MultiversX EGLD	Native	RH8F54RM6	EGLD	RH8F54RM6 (EGLD)
77	RQWW6J6K0	Polygon	MATIC	Polygon	MATIC	Polygon Matic	Native	RQWW6J6K0	MATIC	RQWW6J6K0 (MATIC)
78	SSFZXXTDD	Aptos	APT	Aptos	APT	Aptos Token	Native	SSFZXXTDD	APT	SSFZXXTDD (APT)
79	T6TQ8GN7L	USDC	USDC	TRON	USDC	USD Coin	Auxiliary	993D8X1FB	TRX	T6TQ8GN7L (USDC / TRX)
80	TM1M7GJG0	eCash	XEC	eCash	XEC	eCash	Native	TM1M7GJG0	XEC	TM1M7GJG0 (XEC)
81	TZFM5MHWR	Tether USDT	USDT	Tezos	USDT	Tether USD	Auxiliary	7VTRKSC7S	XTZ	TZFM5MHWR (USDT / XTZ)
82	VB2Q3G56B	Shiba Inu	SHIB	Ethereum	SHIB	SHIBA INU	Auxiliary	X9J9K872S	ETH	VB2Q3G56B (SHIB)
83	W6T647XQ9	Aave	AAVE	Ethereum	AAVE	Aave Token	Auxiliary	X9J9K872S	ETH	W6T647XQ9 (AAVE)
84	W7BGSQ91D	Stacks	STX	Stacks	STX	Stacks	Native	W7BGSQ91D	STX	W7BGSQ91D (STX)
85	WRDZ657V5	USDD	USDD	TRON	USDD	Decentralized USD	Auxiliary	993D8X1FB	TRX	WRDZ657V5 (USDD / TRX)
86	WS6BZ8225	Fantom	FTM	Fantom	FTM	Fantom	Native	WS6BZ8225	FTM	WS6BZ8225 (FTM)
87	WTX0G7K46	Litecoin	LTC	Litecoin	LTC	Litecoin	Native	WTX0G7K46	LTC	WTX0G7K46 (LTC)
88	X8N7P3B1M	Dai	DAI	Ethereum	DAI	Dai Stablecoin	Auxiliary	X9J9K872S	ETH	X8N7P3B1M (DAI)
89	X9J9K872S	Ethereum	ETH	Ethereum	ETH	Ethereum Ether	Native	X9J9K872S	ETH	X9J9K872S (ETH)
90	XTS66R22W	USDC	USDC	Hedera	USDC	USD Coin	Auxiliary	DHQPD433B	HBAR	XTS66R22W (USDC / HBAR)
91	XXC2TZQRQ	Mina	MINA	Mina	MINA	Mina	Native	XXC2TZQRQ	MINA	XXC2TZQRQ (MINA)
92	Z2FJWKQOR	Axie Infinity	AXS	Ethereum	AXS	Axie Infinity Shard	Auxiliary	X9J9K872S	ETH	Z2FJWKQOR (AXS)
93	Z7ZX774BJ	Tether USDT	USDT	EOS Blockchain	USDT	USDT	Auxiliary	M4FLVF81Q	EOS	Z7ZX774BJ (USDT / EOS)
94	ZN227BVRW	Wrapped Bitcoin	WBTC	Ethereum	WBTC	Wrapped BTC	Auxiliary	X9J9K872S	ETH	ZN227BVRW (WBTC)

## Appendix 2

The table below provides the list of DTIs that are to be added to the existing CommoditiesReferenceRate.json.

#	Reference Rate / Other Reference Rate	Tool Tip (and value elaboration)	Enum_Title
1	20J63Z4N3	20J63Z4N3	20J63Z4N3 (SOL)
2	24VV95T9F	24VV95T9F	24VV95T9F (XMR)
3	26W7JCWZJ	26W7JCWZJ	26W7JCWZJ (LDO)
4	29DD3R2SH	29DD3R2SH	29DD3R2SH (USDt / NEAR)
5	2L8HS2MNP	2L8HS2MNP	2L8HS2MNP (BSV)
6	2QWSBDMNC	2QWSBDMNC	2QWSBDMNC (USDT / ETH)
7	3ZW8R4HSD	3ZW8R4HSD	3ZW8R4HSD (CFX)
8	41W3DC2R4	41W3DC2R4	41W3DC2R4 (BUSD / TRX)
9	45J6XJX7H	45J6XJX7H	45J6XJX7H (USDC / AVAX)
10	46VQ8B7LM	46VQ8B7LM	46VQ8B7LM (IMX)
11	4GNLB78VC	4GNLB78VC	4GNLB78VC (TUSD / ETH)
12	4H95J0R2X	4H95J0R2X	4H95J0R2X (BTC)
13	5R3XFPZSM	5R3XFPZSM	5R3XFPZSM (USDC / SOL)
14	6QBMW6DQZ	6QBMW6DQZ	6QBMW6DQZ (USDT / SOL)
15	6WNRFWT13	6WNRFWT13	6WNRFWT13 (RNDR)
16	75T0GP5WJ	75T0GP5WJ	75T0GP5WJ (USDT / BTC)
17	7744P2WPH	7744P2WPH	7744P2WPH (GRT)
18	7KL6LCVWQ	7KL6LCVWQ	7KL6LCVWQ (ICP)
19	7VTRKSC7S	7VTRKSC7S	7VTRKSC7S (XTZ)
20	820B7G1NL	820B7G1NL	820B7G1NL (DOGE)
21	85MP572L7	85MP572L7	85MP572L7 (BNB)
22	8SBB81M2M	8SBB81M2M	8SBB81M2M (LINK)
23	93K9SQP62	93K9SQP62	93K9SQP62 (ARB)
24	993D8X1FB	993D8X1FB	993D8X1FB (TRX)
25	B16J8HBKK	B16J8HBKK	B16J8HBKK (SAND)
26	B8DH60MPJ	B8DH60MPJ	B8DH60MPJ (RUNE)
27	BDFVNSJD2	BDFVNSJD2	BDFVNSJD2 (BUSD / MATIC)
28	BHQ70PZ11	BHQ70PZ11	BHQ70PZ11 (USDt / BCH)
29	C4SRNZD8K	C4SRNZD8K	C4SRNZD8K (XLM)
30	C9N6ZVN7S	C9N6ZVN7S	C9N6ZVN7S (USDT / TRX)
31	CCQZQXFDC	CCQZQXFDC	CCQZQXFDC (XDC)

#	Reference Rate / Other Reference Rate	Tool Tip (and value elaboration)	Enum_Title
32	CK9PW1MFH	CK9PW1MFH	CK9PW1MFH (USDC / ETH)
33	CNKWNW4ZD	CNKWNW4ZD	CNKWNW4ZD (OKB)
34	D00BX2H21	D00BX2H21	D00BX2H21 (CRO)
35	D94114L7T	D94114L7T	D94114L7T (SNX)
36	DC83NXWML	DC83NXWML	DC83NXWML (NEAR)
37	DDWNJQZZH	DDWNJQZZH	DDWNJQZZH (BUSD / BNB)
38	DHQPD433B	DHQPD433B	DHQPD433B (HBAR)
39	DLFDPGMTP	DLFDPGMTP	DLFDPGMTP (TUSD / AVAX)
40	DWBBXD2F1	DWBBXD2F1	DWBBXD2F1 (USDC / XLM)
41	DWR00Z22R	DWR00Z22R	DWR00Z22R (OP)
42	F6W5TF66L	F6W5TF66L	F6W5TF66L (MANA)
43	FDBG7XVCM	FDBG7XVCM	FDBG7XVCM (BUSD / AVAX)
44	GWQWXVV7J	GWQWXVV7J	GWQWXVV7J (ETC)
45	HFX40B3W9	HFX40B3W9	HFX40B3W9 (FLOW)
46	HWGL1C2CK	HWGL1C2CK	HWGL1C2CK (ADA)
47	J04F1K9H3	J04F1K9H3	J04F1K9H3 (BGB)
48	J51DXB76N	J51DXB76N	J51DXB76N (ATOM)
49	J5J62BBD7	J5J62BBD7	J5J62BBD7 (KAVA)
50	J9K583ZGG	J9K583ZGG	J9K583ZGG (BCH)
51	JH9TPZQ38	JH9TPZQ38	JH9TPZQ38 (THETA)
52	JVVVH6K29	JVVVH6K29	JVVVH6K29 (TUSD / BNB)
53	K1KRW1TFQ	K1KRW1TFQ	K1KRW1TFQ (MNT)
54	K8B662X5Z	K8B662X5Z	K8B662X5Z (FIL)
55	KPXS8WST3	KPXS8WST3	KPXS8WST3 (LEO)
56	L6GTZC9G4	L6GTZC9G4	L6GTZC9G4 (XRP)
57	LGWSMX228	LGWSMX228	LGWSMX228 (INJ)
58	M3Z631TN4	M3Z631TN4	M3Z631TN4 (AVAX)
59	M4FLVF81Q	M4FLVF81Q	M4FLVF81Q (EOS)
60	M8G59S1ZR	M8G59S1ZR	M8G59S1ZR (USDC / ALGO)
61	M8Z9JSG9Q	M8Z9JSG9Q	M8Z9JSG9Q (ALGO)
62	MJ4JJGJ97	MJ4JJGJ97	MJ4JJGJ97 (BUSD / ETH)
63	N19HT013T	N19HT013T	N19HT013T (TUSD / TRX)

#	Reference Rate / Other Reference Rate	Tool Tip (and value elaboration)	Enum_Title
64	N25N2VFT7	N25N2VFT7	N25N2VFT7 (QNT)
65	N7KDZ7X0F	N7KDZ7X0F	N7KDZ7X0F (NEO)
66	NJ7X4BCTD	NJ7X4BCTD	NJ7X4BCTD (USDt / AVAX)
67	NN418T24K	NN418T24K	NN418T24K (VET)
68	P1FTS4328	P1FTS4328	P1FTS4328 (UNI)
69	P5B46MFPP	P5B46MFPP	P5B46MFPP (DOT)
70	P7H2X1B9H	P7H2X1B9H	P7H2X1B9H (USDC / FLOW)
71	PDX13MN94	PDX13MN94	PDX13MN94 (USDt / ALGO)
72	PJ1BC8W44	PJ1BC8W44	PJ1BC8W44 (pUSDt / MATIC)
73	QBZLT5MT1	QBZLT5MT1	QBZLT5MT1 (TON)
74	QD7K0JHQ8	QD7K0JHQ8	QD7K0JHQ8 (MKR)
75	QP2QBFRQ2	QP2QBFRQ2	QP2QBFRQ2 (FDUSD / ETH)
76	RH8F54RM6	RH8F54RM6	RH8F54RM6 (EGLD)
77	RQWW6J6K0	RQWW6J6K0	RQWW6J6K0 (MATIC)
78	SSFZXXTDD	SSFZXXTDD	SSFZXXTDD (APT)
79	T6TQ8GN7L	T6TQ8GN7L	T6TQ8GN7L (USDC / TRX)
80	TM1M7GJG0	TM1M7GJG0	TM1M7GJG0 (XEC)
81	TZFM5MHWR	TZFM5MHWR	TZFM5MHWR (USDt / XTZ)
82	VB2Q3G56B	VB2Q3G56B	VB2Q3G56B (SHIB)
83	W6T647XQ9	W6T647XQ9	W6T647XQ9 (AAVE)
84	W7BGSQ91D	W7BGSQ91D	W7BGSQ91D (STX)
85	WRDZ657V5	WRDZ657V5	WRDZ657V5 (USDD / TRX)
86	WS6BZ8225	WS6BZ8225	WS6BZ8225 (FTM)
87	WTX0G7K46	WTX0G7K46	WTX0G7K46 (LTC)
88	X8N7P3B1M	X8N7P3B1M	X8N7P3B1M (DAI)
89	X9J9K872S	X9J9K872S	X9J9K872S (ETH)
90	XTS66R22W	XTS66R22W	XTS66R22W (USDC / HBAR)
91	XXC2TZQRQ	XXC2TZQRQ	XXC2TZQRQ (MINA)
92	Z2FJWKQ0R	Z2FJWKQ0R	Z2FJWKQ0R (AXS)
93	Z7ZX774BJ	Z7ZX774BJ	Z7ZX774BJ (USDT / EOS)
94	ZN227BVRW	ZN227BVRW	ZN227BVRW (WBTC)