

VIA CFTC PORTAL

26 August 2020

Mr Christopher Kirkpatrick  
Commodity Futures Trading Commission  
115 21<sup>st</sup> Street NW  
Three Lafayette Centre  
Washington DC 20581

## **LCH Limited Self-Certification: SwapClear new variable notional swaps and tenor extensions**

Dear Mr Kirkpatrick:

Pursuant to CFTC regulation §40.6(a), LCH Limited ("LCH"), a derivatives clearing organization registered with the Commodity Futures Trading Commission (the "CFTC"), is submitting for self-certification changes to its Procedures related to increasing the eligibility for clearing for Korean (KRW) Non-Deliverable Swaps (NDS) and Hungarian (HUF) Interest Rate Swaps (IRS). Additionally, LCH is also amending its Procedures to allow for the clearing of GBP and USD Variable Notional Overnight Index Swaps (VNOIS) in its SwapClear clearing service.

### **Part I: Explanation and Analysis**

#### **KRW NDS**

In April 2018 LCH launched clearing of NDS in three Asian currencies (Korean Won, Indian Rupee and Chinese Renminbi).

At launch, the maximum tenor was 11 years for KRW, and this was increased in March 2019 to 15.5 years. SwapClear now intends to increase the maximum clearing eligibility again to 21 years. KRW is the most actively traded NDS market and members have provided feedback that there is liquidity and demand for clearing beyond the current maximum. The models, methodologies and processes required to clear this extended tenor are the same as for the existing 15.5-year eligibility.

#### **HUF IRS**

SwapClear proposes increasing the maximum maturity for HUF IRS from 11 to 21 years. This includes all eligible variants of the product such as Variable Notional Swaps.

This extension has been requested by clearing members to facilitate market growth and to support the recent introduction of 20-year issuance by the government.

The models, methodologies and processes required to clear this extended tenor are the same as for the existing 11-year eligibility for HUF.

### VNS OIS – GBP & USD

SwapClear is making some enhancements to the OIS product suite to align it more with the type of features available in the Interest Rate Swap (IRS) offering. These changes will assist in the market implementation of fallbacks and adoption of Risk-Free Rates (RFR) in both the derivative and cash markets. SwapClear is now planning on supporting the clearing of VNOIS for GBP SONIA, USD SOFR and USD Fed Funds swaps. SwapClear offers this feature in IBOR based products and will extend it to all OIS based products following a schedule - with the GBP and USD OIS being the first.

In order for these initiatives to go-live the product terms and eligibility manuals will need to be updated. These changes and will go live on, or after, 14 September 2020.

### **Part II: Description of Rule Changes**

Section 1.2 of Part B of the Product Specific Contract Terms and Eligibility Criteria Manual and Section 1.1 of Part B of the FCM Product Specific Contract Terms and Eligibility Criteria Manual has been updated to show the new maximum tenors for KRW NDS, HUF IRS and the availability of variable notional swaps on GBP and USD OIS products.

The texts of the rule changes are attached hereto as:

- i. **Appendix I**, Product Specific Contract Terms and Eligibility Criteria Manual
- ii. **Appendix II**, FCM Product Specific Contract Terms and Eligibility Criteria Manual

### **Part III: Core Principle Compliance**

LCH reviewed the changes against the requirements of the Core Principles and found it will continue to comply with all the requirements and standards therein.

### **Part IV: Public Information**

LCH has posted a notice of pending certification with the CFTC and a copy of the submission on LCH's website at:

<http://www.lch.com/rules-regulations/proposed-rules-changes>

### **Part V: Opposing Views**

There were no opposing views expressed to LCH by governing board or committee members, members of LCH or market participants that were not incorporated into the rule changes.

## Certification

LCH hereby certifies to the Commodity Futures Trading Commission, pursuant to the procedures set forth in the Commission regulation § 40.6, that attached rule submission complies with the Commodity Exchange Act, as amended, and the regulations promulgated there under.

Should you have any questions please contact me at [julian.oliver@lch.com](mailto:julian.oliver@lch.com).

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Julian Oliver', is displayed within a light blue rectangular border.

Julian Oliver  
Chief Compliance Officer  
LCH Limited

**Appendix I**  
Product Specific Contract Terms and Eligibility Criteria Manual



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**PRODUCT SPECIFIC CONTRACT TERMS AND ELIGIBILITY CRITERIA  
MANUAL**

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## PART B PRODUCT ELIGIBILITY CRITERIA FOR REGISTRATION OF A SWAPCLEAR CONTRACT

### 1. SwapClear Transaction

Without prejudice to the Regulations and the Procedures, the Clearing House will only register a SwapClear Contract pursuant to receipt of particulars of a transaction where at the time of the particulars being presented:

- (a) the transaction meets the eligibility criteria, set out in paragraphs 1.2(a), ~~(b)(b)~~, (c) or (d) below for a SwapClear Transaction; and
- (b) each party to the transaction is either a SwapClear Dealer or a SwapClear Clearing Member (including an SCM Branch),

and the requirements of (a) and (b) continue to be satisfied at Registration Time.

### 1.2 SwapClear Product Eligibility Criteria for a SwapClear Transaction

- (a) Vanilla interest rate swaps and notional interest rate swaps having the characteristics set out in the table below:

<u>Instrument</u>	<u>Currency</u>	<u>Leg 1</u>	<u>Leg 2</u>	<u>Variable Notional</u>	<u>Maximum Tenor</u>	<u>Notional Amount</u>
Interest rate swap	GBP	Fixed	GBP-LIBOR-BBA	Yes	18,675 days	0.01-99,999,999,999.99
Basis Swap	GBP	GBP-LIBOR-BBA	GBP-LIBOR-BBA	Yes	18,675 days	0.01-99,999,999,999.99
Basis swap	GBP	GBP-SONIA-COMPOUND	GBP-LIBOR-BBA	No	18,675 days	0.01-99,999,999,999.99
OIS	GBP	Fixed	GBP-SONIA-COMPOUND	<del>No</del> Yes	18,675 days	0.01-99,999,999,999.99
Interest rate swap	USD	Fixed	USD-LIBOR-BBA	Yes	18,675 days	0.01-99,999,999,999.99
OIS	USD	Fixed	USD-SOFR-COMPOUND	<del>No</del> Yes	18,675 days	0.01-99,999,999,999.99
Basis swap	USD	USD-LIBOR-BBA	USD-LIBOR-BBA	Yes	18,675 days	0.01-99,999,999,999.99
Basis swap	USD	USD-LIBOR-BBA	USD-SOFR-COMPOUND	Yes	18,675 days	0.01-99,999,999,999.99
Basis swap	USD	USD-FEDERAL FUNDS-H.15	USD-LIBOR-BBA	No	18,675 days	0.01-99,999,999,999.99
Basis swap	USD	USD-FEDERAL FUNDS-H.15-OIS-COMPOUND	USD-SOFR-COMPOUND	No	18,675 days	0.01-99,999,999,999.99
OIS	USD	Fixed	USD-Federal Funds H.15-OIS-COMPOUND	<del>No</del> Yes	18,675 days	0.01-99,999,999,999.99

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Interest rate swap	EUR	Fixed	EUR-LIBOR-BBA	Yes	18,675 days	0.01-99,999,999,999.99
Interest rate swap	EUR	Fixed	EUR-EURIBOR-Telerate	Yes	18,675 days	0.01-99,999,999,999.99
Interest rate swap	EUR	Fixed	EUR-EURIBOR-Reuters	Yes	18,675 days	0.01-99,999,999,999.99
Basis swap	EUR	EUR-LIBOR-BBA	EUR-LIBOR-BBA	Yes	18,675 days	0.01-99,999,999,999.99
Basis swap	EUR	EUR-LIBOR-BBA	EUR-EURIBOR-Telerate	Yes	18,675 days	0.01-99,999,999,999.99
Basis swap	EUR	EUR-LIBOR-BBA	EUR-EURIBOR-Reuters	Yes	18,675 days	0.01-99,999,999,999.99
Basis swap	EUR	EUR-EURIBOR-Telerate	EUR-EURIBOR-Telerate	Yes	18,675 days	0.01-99,999,999,999.99
Basis swap	EUR	EUR-EURIBOR-Reuters	EUR-EURIBOR-Reuters	Yes	18,675 days	0.01-99,999,999,999.99
Basis swap	EUR	EUR-EONIA-OIS-COMPOUND	EUR-EURIBOR-Telerate	No	18,675 days	0.01-99,999,999,999.99
Basis swap	EUR	EUR-EONIA-OIS-COMPOUND	EUR-EURIBOR-Reuters	No	18,675 days	0.01-99,999,999,999.99
OIS	EUR	Fixed	EUR-EONIA-OIS-COMPOUND	No	18,675 days	0.01-99,999,999,999.99
OIS	EUR	Fixed	EUR-EuroSTR-COMPOUND	No	18,675 days	0.01-99,999,999,999.99
Basis swap	EUR	EUR-EONIA-OIS-COMPOUND	EUR-EuroSTR-COMPOUND	No	18,675 days	0.01-99,999,999,999.99
Basis swap	EUR	EUR-EURIBOR-Reuters	EUR-EuroSTR-COMPOUND	No	18,675 days	0.01-99,999,999,999.99
Interest rate swap	AUD	Fixed	AUD-BBR-BBSW	Yes	11,375 days	0.01-99,999,999,999.99
Basis swap	AUD	AUD-BBR-BBSW	AUD-BBR-BBSW	Yes	11,375 days	0.01-99,999,999,999.99
Basis swap	AUD	AUD-AONIA-OIS-COMPOUND	AUD-BBR-BBSW	No	11,375 days	0.01-99,999,999,999.99
OIS	AUD	Fixed	AUD-AONIA-OIS-COMPOUND	No	11,375 days	0.01-99,999,999,999.99
Interest rate swap	CAD	Fixed	CAD-BA-CDOR	Yes	15,025 days	0.01-99,999,999,999.99
Basis swap	CAD	CAD-BA-CDOR	CAD-BA-CDOR	Yes	15,025 days	0.01-99,999,999,999.99

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Basis swap	CAD	CAD-BA-CDOR	CAD-CORRA-OIS-COMPOUND	Yes	11,375 days	0.01-99,999,999,999.99
OIS	CAD	Fixed	CAD-CORRA-OIS-COMPOUND	No	11,375 days	0.01-99,999,999,999.99
Interest rate swap	CZK	Fixed	CZK-PRIBOR-PRBO	Yes	4,050 days	0.01-99,999,999,999.99
Basis swap	CZK	CZK-PRIBOR-PRBO	CZK-PRIBOR-PRBO	Yes	4,050 days	0.01-99,999,999,999.99
Interest rate swap	DKK	Fixed	DKK-CIBOR-DKNA13	Yes	11,375 days	0.01-99,999,999,999.99
Interest rate swap	DKK	Fixed	DKK-CIBOR2-DKNA13	Yes	11,375 days	0.01-99,999,999,999.99
Basis swap	DKK	DKK-CIBOR-DKNA13	DKK-CIBOR-DKNA13	Yes	11,375 days	0.01-99,999,999,999.99
Basis swap	DKK	DKK-CIBOR2-DKNA13	DKK-CIBOR2-DKNA13	Yes	11,375 days	0.01-99,999,999,999.99
Interest rate swap	HKD	Fixed	HKD-HIBOR-HKAB	Yes	4,050 days	0.01-99,999,999,999.99
Interest rate swap	HKD	Fixed	HKD-HIBOR-ISDC	Yes	4,050 days	0.01-99,999,999,999.99
Basis swap	HKD	HKD-HIBOR-HKAB	HKD-HIBOR-HKAB	Yes	4,050 days	0.01-99,999,999,999.99
Basis swap	HKD	HKD-HIBOR-ISDC	HKD-HIBOR-ISDC	Yes	4,050 days	0.01-99,999,999,999.99
OIS	HKD	Fixed	HKD-HONIX-OIS-COMPOUND	No	4,050 days	0.01-99,999,999,999.99
Basis swap	HKD	HKD-HONIX-OIS-COMPOUND	HKD-HIBOR-HKAB	No	4,050 days	0.01-99,999,999,999.99
Interest rate swap	HUF	Fixed	HUF-BUBOR-Reuters	Yes	4,050.700 days	1-10,000,000,000,000
Basis swap	HUF	HUF-BUBOR-Reuters	HUF-BUBOR-Reuters	Yes	4,050 days	1-10,000,000,000,000
Interest rate swap	JPY	Fixed	JPY-LIBOR-BBA	Yes	15,025 days	1-10,000,000,000,000
Basis swap	JPY	JPY-LIBOR-BBA	JPY-LIBOR-BBA	Yes	15,025 days	1-10,000,000,000,000
OIS	JPY	Fixed	JPY-TONA-OIS-COMPOUND	No	11,375 days	1-10,000,000,000,000
Basis swap	JPY	JPY-LIBOR-BBA	JPY-TONA-OIS-COMPOUND	Yes	11,375 days	1-10,000,000,000,000
Interest rate swap	MXN	Fixed	MXN-TIE-Banxico	No	7,700 days	0.01-99,999,999,999.99
Interest rate swap	NOK	Fixed	NOK-NIBOR-OIBOR	Yes	5,875 days	0.01-99,999,999,999.99
Interest rate swap	NOK	Fixed	NOK-NIBOR-NIBR	Yes	5,875 days	0.01-99,999,999,999.99



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Basis swap	NOK	NOK-NIBOR-NIBR	NOK-NIBOR-NIBR	Yes	5,875 days	0.01-99,999,999,999.99
Basis swap	NOK	NOK-NIBOR-OIBOR	NOK-NIBOR-OIBOR	Yes	5,875 days	0.01-99,999,999,999.99
Interest rate swap	NZD	Fixed	NZD-BBR-Telerate	Yes	7,700 days	0.01-99,999,999,999.99
Interest rate swap	NZD	Fixed	NZD-BBR-FRA	Yes	7,700 days	0.01-99,999,999,999.99
OIS	NZD	Fixed	NZD-NZIONIA-OIS-COMPOUND	No	2,025 days	0.01-99,999,999,999.99
Basis swap	NZD	NZD-BBR-FRA	NZD-NZIONIA-OIS-COMPOUND	No	2,025 days	0.01-99,999,999,999.99
Basis swap	NZD	NZD-BBR-Telerate	NZD-BBR-Telerate	Yes	7,700 days	0.01-99,999,999,999.99
Basis swap	NZD	NZD-BBR-FRA	NZD-BBR-FRA	Yes	7,700 days	0.01-99,999,999,999.99
Interest rate swap	SGD	Fixed	SGD-SOR-Reuters	Yes	7,700 days	0.01-99,999,999,999.99
Interest rate swap	SGD	Fixed	SGD-SOR-VWAP	Yes	7,700 days	0.01-99,999,999,999.99
Basis swap	SGD	SGD-SOR-Reuters	SGD-SOR-Reuters	Yes	7,700 days	0.01-99,999,999,999.99
Basis swap	SGD	SGD-SOR-VWAP	SGD-SOR-VWAP	Yes	7,700 days	0.01-99,999,999,999.99
OIS	SGD	Fixed	SGD-SORA-COMPOUND	No	2,025 days	0.01-99,999,999,999.99
Basis swap	SGD	SGD-SORA-COMPOUND	SGD-SOR-VWAP	No	2,025 days	0.01-99,999,999,999.99
Interest rate swaps	SEK	Fixed	SEK-STIBOR-SIDE	Yes	11,375 days	0.01-99,999,999,999.99
Basis swap	SEK	SEK-STIBOR-SIDE	SEK-STIBOR-SIDE	Yes	11,375 days	0.01-99,999,999,999.99
Interest rate swap	CHF	Fixed	CHF-LIBOR-BBA	Yes	11,375 days	0.01-99,999,999,999.99
Basis swap	CHF	CHF-LIBOR-BBA	CHF-LIBOR-BBA	Yes	11,375 days	0.01-99,999,999,999.99
OIS	CHF	Fixed	CHF-SARON-OISCOMPOUND	No	11,375 days	0.01-99,999,999,999.99
Interest rate swap	PLN	Fixed	PLN-WIBOR-WIBO	Yes	5,875 days	0.01-99,999,999,999.99
Interest rate swap	PLN	Fixed	PLZ-WIBOR-WIBO	Yes	5,875 days	0.01-99,999,999,999.99
Basis swap	PLN	PLN-WIBOR-WIBO	PLN-WIBOR-WIBO	Yes	5,875 days	0.01-99,999,999,999.99
Basis swap	PLN	PLZ-WIBOR-WIBO	PLZ-WIBOR-WIBO	Yes	5,875 days	0.01-99,999,999,999.99

Interest rate swap	ZAR	Fixed	ZAR-JIBAR-SAFEX	Yes	11,375 days	0.01-99,999,999,999.99
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(b) Forward interest rate agreements having the characteristics set out in the table below:

<u>Instrument</u>	<u>Currency</u>	<u>Leg 1</u>	<u>Leg 2</u>	<u>Maximum Tenor</u>	<u>Notional Amount</u>
FRA	CHF	Fixed	CHF-LIBOR-BBA	1,225 days	0.01-99,999,999,999.99
FRA	CZK	Fixed	CZK-PRIBOR-PRBO	1,225 days	0.01-99,999,999,999.99
FRA	DKK	Fixed	DKK-CIBOR2-DKNA13	1,225 days	0.01-99,999,999,999.99
FRA	EUR	Fixed	EUR-LIBOR-BBA	1,225 days	0.01-99,999,999,999.99
FRA	EUR	Fixed	EUR-EURIBOR-Reuters	1,225 days	0.01-99,999,999,999.99
FRA	GBP	Fixed	GBP-LIBOR-BBA	1, 225 days	0.01-99,999,999,999.99
FRA	HUF	Fixed	HUF-BUBOR-Reuters	1,225 days	0.01-99,999,999,999.99
FRA	JPY	Fixed	JPY-LIBOR-BBA	1,225 days	1-10.000.000.000.000
FRA	NOK	Fixed	NOK-NIBOR-NIBR	1, 225 days	0.01-99,999,999,999.99
FRA	NOK	Fixed	NOK-NIBOR-OIBOR	1, 225 days	0.01-99,999,999,999.99
FRA	PLN	Fixed	PLN-WIBOR-WIBO	1, 225 days	0.01-99,999,999,999.99
FRA	SEK	Fixed	SEK-STIBOR-SIDE	1, 225 days	0.01-99,999,999,999.99
FRA	USD	Fixed	USD-LIBOR-BBA	1, 225 days	0.01-99,999,999,999.99

(c) Inflation rate swaps with constant notional principal having the characteristics set out in the table below:

<u>Instrument</u>	<u>Currency</u>	<u>Leg 1</u>	<u>Leg 2</u>	<u>Maximum Tenor</u>	<u>Notional Amount</u>
Zero coupon inflation indexed swap	EUR	Fixed	EUR-EXT-CPI	30 years	0.01-99,999,999,999.99
Standard coupon inflation	EUR	Fixed	EUR-EXT-CPI	30 years	0.01-99,999,999,999.99

indexed swap <sup>6</sup>					
Zero coupon inflation indexed swap	EUR	Fixed	FRC-EXT-CPI	30 years	0.01-99,999,999,999.99
Standard coupon inflation indexed swap	EUR	Fixed	FRC-EXT-CPI	30 years	0.01-99,999,999,999.99
Zero coupon inflation indexed swap	GBP	Fixed	UK-RPI	50 years	0.01-99,999,999,999.99
Standard coupon inflation indexed swap	GBP	Fixed	UK-RPI	50 years	0.01-99,999,999,999.99
Zero coupon inflation indexed swap	USD	Fixed	USA-CPI-U	30 years	0.01-99,999,999,999.99
Standard coupon inflation indexed swap	USD	Fixed	USA-CPI-U	30 years	0.01-99,999,999,999.99

(d) Non-deliverable interest rate swaps having the characteristics set out in the table below:

<u>Instrument</u>	<u>Currency</u>	<u>Leg 1</u>	<u>Leg 2</u>	<u>Variable Notional</u>	<u>Maximum Tenor</u>	<u>Notional Amount</u>
Interest rate swap	BRL	Fixed	BRL-CDI	No	4,050 days	0.01-99,999,999,999.99
OIS	CLP	Fixed	CLP-TNA	No	5,700 days	1.0-10,000,000,000,000
OIS	COP	Fixed	COP-IBR-OIS-COMPOUND	No	5,700 days	1.0-10,000,000,000,000
Interest rate swap	KRW	Fixed	KRW-CD-KSDA-BLOOMBERG	No	<del>5,700</del> 7,700 days	1.0-10,000,000,000,000
OIS	INR	Fixed	INR-FBIL-MIBOR-OIS-COMPOUND	No	4,050 days	0.01-99,999,999,999.99
Interest rate swap	CNY	Fixed	CNY-CNREPOFIX=CFXS-REUTERS	No	2,025 days	0.01-99,999,999,999.99
Interest rate swap	THB	Fixed	THB-THBFIX-REUTERS	No	4,050 days	0.01-99,999,999,999.99
Interest rate swap	TWD	Fixed	TWD-TAIBOR-REUTERS	No	4,050 days	0.01-99,999,999,999.99

<sup>6</sup> A “standard coupon inflation swap” is an inflation vs. fixed swap, which pays out regular coupons on both legs of the swap.

**Appendix II**  
FCM Product Specific Contract Terms and Eligibility Criteria Manual



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FCM PRODUCT SPECIFIC CONTRACT TERMS AND ELIGIBILITY CRITERIA  
MANUAL

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**PART B**  
**PRODUCT ELIGIBILITY CRITERIA FOR REGISTRATION OF AN FCM SWAPCLEAR CONTRACT**

**1. FCM SwapClear Transaction**

Without prejudice to the FCM Regulations and the FCM Procedures, the Clearing House will only register an FCM SwapClear Contract pursuant to receipt of particulars of a transaction where at the time of the particulars being presented:

- (a) the transaction meets the FCM SwapClear Product Eligibility Criteria for registration as an FCM SwapClear Transaction; and
- (b) each party to the transaction is an Executing Party;

and the requirements of (a) and (b) continue to be satisfied at Registration Time.

**1.1 FCM SwapClear Product Eligibility Criteria for an FCM SwapClear Transaction**

- (a) Vanilla interest rate swaps and notional interest rate swaps having the characteristics set out in the table below:

<u>Instrument</u>	<u>Currency</u>	<u>Leg 1</u>	<u>Leg 2</u>	<u>Variable Notional</u>	<u>Maximum Tenor</u>	<u>Notional Amount</u>
Interest rate swap	GBP	Fixed	GBP-LIBOR-BBA	Yes	18,675 days	0.01-99,999,999,999.99
Basis Swap	GBP	GBP-LIBOR-BBA	GBP-LIBOR-BBA	Yes	18,675 days	0.01-99,999,999,999.99
Basis swap	GBP	GBP-SONIA-COMPOUND	GBP-LIBOR-BBA	No	18,675 days	0.01-99,999,999,999.99
OIS	GBP	Fixed	GBP-SONIA-COMPOUND	<del>No</del> Yes	18,675 days	0.01-99,999,999,999.99
Interest rate swap	USD	Fixed	USD-LIBOR-BBA	Yes	18,675 days	0.01-99,999,999,999.99
OIS	USD	Fixed	USD-SOFR-COMPOUND	<del>No</del> Yes	18,675 days	0.01-99,999,999,999.99
Basis swap	USD	USD-LIBOR-BBA	USD-LIBOR-BBA	Yes	18,675 days	0.01-99,999,999,999.99
Basis swap	USD	USD-LIBOR-BBA	USD-SOFR-COMPOUND	Yes	18,675 days	0.01-99,999,999,999.99
Basis swap	USD	USD-FEDERAL FUNDS-H.15	USD-LIBOR-BBA	No	18,675 days	0.01-99,999,999,999.99
Basis swap	USD	USD-FEDERAL FUNDS-H.15-OIS-COMPOUND	USD-SOFR-COMPOUND	No	18,675 days	0.01-99,999,999,999.99
OIS	USD	Fixed	USD-Federal Funds H.15-OIS-COMPOUND	<del>No</del> Yes	18,675 days	0.01-99,999,999,999.99

Interest rate swap	EUR	Fixed	EUR-LIBOR-BBA	Yes	18,675 days	0.01-99,999,999,999.99
Interest rate swap	EUR	Fixed	EUR-EURIBOR-Telerate	Yes	18,675 days	0.01-99,999,999,999.99
Interest rate swap	EUR	Fixed	EUR-EURIBOR-Reuters	Yes	18,675 days	0.01-99,999,999,999.99
Basis swap	EUR	EUR-LIBOR-BBA	EUR-LIBOR-BBA	Yes	18,675 days	0.01-99,999,999,999.99
Basis swap	EUR	EUR-LIBOR-BBA	EUR-EURIBOR-Telerate	Yes	18,675 days	0.01-99,999,999,999.99
Basis swap	EUR	EUR-LIBOR-BBA	EUR-EURIBOR-Reuters	Yes	18,675 days	0.01-99,999,999,999.99
Basis swap	EUR	EUR-EURIBOR-Telerate	EUR-EURIBOR-Telerate	Yes	18,675 days	0.01-99,999,999,999.99
Basis swap	EUR	EUR-EURIBOR-Reuters	EUR-EURIBOR-Reuters	Yes	18,675 days	0.01-99,999,999,999.99
Basis swap	EUR	EUR-EONIA-OIS-COMPOUND	EUR-EURIBOR-Telerate	No	18,675 days	0.01-99,999,999,999.99
Basis swap	EUR	EUR-EONIA-OIS-COMPOUND	EUR-EURIBOR-Reuters	No	18,675 days	0.01-99,999,999,999.99
OIS	EUR	Fixed	EUR-EONIA-OIS-COMPOUND	No	18,675 days	0.01-99,999,999,999.99
OIS	EUR	Fixed	EUR-EuroSTR-COMPOUND	No	18,675 days	0.01-99,999,999,999.99
Basis swap	EUR	EUR-EONIA-OIS-COMPOUND	EUR-EuroSTR-COMPOUND	No	18,675 days	0.01-99,999,999,999.99
Basis swap	EUR	EUR-EURIBOR-Reuters	EUR-EuroSTR-COMPOUND	No	18,675 days	0.01-99,999,999,999.99
Interest rate swap	AUD	Fixed	AUD-BBR-BBSW	Yes	11,375 days	0.01-99,999,999,999.99
Basis swap	AUD	AUD-BBR-BBSW	AUD-BBR-BBSW	Yes	11,375 days	0.01-99,999,999,999.99
Basis swap	AUD	AUD-AONIA-OIS-COMPOUND	AUD-BBR-BBSW	No	11,375 days	0.01-99,999,999,999.99
OIS	AUD	Fixed	AUD-AONIA-OIS-COMPOUND	No	11,375 days	0.01-99,999,999,999.99
Interest rate swap	CAD	Fixed	CAD-BA-CDOR	Yes	15,025 days	0.01-99,999,999,999.99
Basis swap	CAD	CAD-BA-CDOR	CAD-BA-CDOR	Yes	15,025 days	0.01-99,999,999,999.99

Basis swap	CAD	CAD-BA-CDOR	CAD-CORRA-OIS-COMPOUND	Yes	11,375 days	0.01-99,999,999,999.99
OIS	CAD	Fixed	CAD-CORRA-OIS-COMPOUND	No	11,375 days	0.01-99,999,999,999.99
Interest rate swap	CZK	Fixed	CZK-PRIBOR-PRBO	Yes	4,050 days	0.01-99,999,999,999.99
Basis swap	CZK	CZK-PRIBOR-PRBO	CZK-PRIBOR-PRBO	Yes	4,050 days	0.01-99,999,999,999.99
Interest rate swap	DKK	Fixed	DKK-CIBOR-DKNA13	Yes	11,375 days	0.01-99,999,999,999.99
Interest rate swap	DKK	Fixed	DKK-CIBOR2-DKNA13	Yes	11,375 days	0.01-99,999,999,999.99
Basis swap	DKK	DKK-CIBOR-DKNA13	DKK-CIBOR-DKNA13	Yes	11,375 days	0.01-99,999,999,999.99
Basis swap	DKK	DKK-CIBOR2-DKNA13	DKK-CIBOR2-DKNA13	Yes	11,375 days	0.01-99,999,999,999.99
Interest rate swap	HKD	Fixed	HKD-HIBOR-HKAB	Yes	4,050 days	0.01-99,999,999,999.99
Interest rate swap	HKD	Fixed	HKD-HIBOR-ISDC	Yes	4,050 days	0.01-99,999,999,999.99
Basis swap	HKD	HKD-HIBOR-HKAB	HKD-HIBOR-HKAB	Yes	4,050 days	0.01-99,999,999,999.99
Basis swap	HKD	HKD-HIBOR-ISDC	HKD-HIBOR-ISDC	Yes	4,050 days	0.01-99,999,999,999.99
OIS	HKD	Fixed	HKD-HONIX-OIS-COMPOUND	No	4,050 days	0.01-99,999,999,999.99
Basis swap	HKD	HKD-HONIX-OIS-COMPOUND	HKD-HIBOR-HKAB	No	4,050 days	0.01-99,999,999,999.99
Interest rate swap	HUF	Fixed	HUF-BUBOR-Reuters	Yes	<del>4,050</del> 7,700 days	1-10,000,000,000,000
Basis swap	HUF	HUF-BUBOR-Reuters	HUF-BUBOR-Reuters	Yes	4,050 days	1-10,000,000,000,000
Interest rate swap	JPY	Fixed	JPY-LIBOR-BBA	Yes	15,025 days	1-10,000,000,000,000
Basis swap	JPY	JPY-LIBOR-BBA	JPY-LIBOR-BBA	Yes	15,025 days	1-10,000,000,000,000
Basis swap	JPY	JPY-LIBOR-BBA	JPY-TONA-OIS-COMPOUND	Yes	11,375 days	1-10,000,000,000,000
OIS	JPY	Fixed	JPY-TONA-OIS-COMPOUND	No	11,375 days	1-10,000,000,000,000
Interest rate swap	MXN	Fixed	MXN-TIE-Banxico	No	7,700 days	0.01-99,999,999,999.99
Interest rate swap	NOK	Fixed	NOK-NIBOR-OIBOR	Yes	5,875 days	0.01-99,999,999,999.99
Interest rate swap	NOK	Fixed	NOK-NIBOR-NIBR	Yes	5,875 days	0.01-99,999,999,999.99



Basis swap	NOK	NOK-NIBOR-NIBR	NOK-NIBOR-NIBR	Yes	5,875 days	0.01-99,999,999,999.99
Basis swap	NOK	NOK-NIBOR-OIBOR	NOK-NIBOR-OIBOR	Yes	5,875 days	0.01-99,999,999,999.99
Interest rate swap	NZD	Fixed	NZD-BBR-Telerate	Yes	7,700 days	0.01-99,999,999,999.99
Interest rate swap	NZD	Fixed	NZD-BBR-FRA	Yes	7,700 days	0.01-99,999,999,999.99
Basis swap	NZD	NZD-BBR-Telerate	NZD-BBR-Telerate	Yes	7,700 days	0.01-99,999,999,999.99
Basis swap	NZD	NZD-BBR-FRA	NZD-BBR-FRA	Yes	7,700 days	0.01-99,999,999,999.99
OIS	NZD	Fixed	NZD-NZIONIA-OIS-COMPOUND	No	2,025 days	0.01-99,999,999,999.99
Basis swap	NZD	NZD-BBR-FRA	NZD-NZIONIA-OIS-COMPOUND	No	2,025 days	0.01-99,999,999,999.99
Interest rate swap	SGD	Fixed	SGD-SOR-Reuters	Yes	7,700 days	0.01-99,999,999,999.99
Interest rate swap	SGD	Fixed	SGD-SOR-VWAP	Yes	7,700 days	0.01-99,999,999,999.99
Basis swap	SGD	SGD-SOR-Reuters	SGD-SOR-Reuters	Yes	7,700 days	0.01-99,999,999,999.99
Basis swap	SGD	SGD-SOR-VWAP	SGD-SOR-VWAP	Yes	7,700 days	0.01-99,999,999,999.99
OIS	SGD	Fixed	SGD-SORA-COMPOUND	No	2,025 days	0.01-99,999,999,999.99
Basis swap	SGD	SGD-SORA-COMPOUND	SGD-SOR-VWAP	No	2,025 days	0.01-99,999,999,999.99
Interest rate swaps	SEK	Fixed	SEK-STIBOR-SIDE	Yes	11,375 days	0.01-99,999,999,999.99
Basis swap	SEK	SEK-STIBOR-SIDE	SEK-STIBOR-SIDE	Yes	11,375 days	0.01-99,999,999,999.99
Interest rate swap	CHF	Fixed	CHF-LIBOR-BBA	Yes	11,375 days	0.01-99,999,999,999.99
Basis swap	CHF	CHF-LIBOR-BBA	CHF-LIBOR-BBA	Yes	11,375 days	0.01-99,999,999,999.99
OIS	CHF	Fixed	CHF-SARON-OISCOMPOUND	No	11,375 days	0.01-99,999,999,999.99
Interest rate swap	PLN	Fixed	PLN-WIBOR-WIBO	Yes	5,875 days	0.01-99,999,999,999.99
Interest rate swap	PLN	Fixed	PLZ-WIBOR-WIBO	Yes	5,875 days	0.01-99,999,999,999.99
Basis swap	PLN	PLN-WIBOR-WIBO	PLN-WIBOR-WIBO	Yes	5,875 days	0.01-99,999,999,999.99
Basis swap	PLN	PLZ-WIBOR-WIBO	PLZ-WIBOR-WIBO	Yes	5,875 days	0.01-99,999,999,999.99

Interest rate swap	ZAR	Fixed	ZAR-JIBAR-SAFEX	Yes	11.375 days	0.01-99,999,999,999.99
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(b) Forward interest rate agreements having the characteristics set out in the table below:

<u>Instrument</u>	<u>Currency</u>	<u>Leg 1</u>	<u>Leg 2</u>	<u>Maximum Tenor</u>	<u>Notional Amount</u>
FRA	CHF	Fixed	CHF-LIBOR-BBA	1,225 days	0.01-99,999,999,999.99
FRA	CZK	Fixed	CZK-PRIBOR-PRBO	1,225 days	0.01-99,999,999,999.99
FRA	DKK	Fixed	DKK-CIBOR2-DKNA13	1,225 days	0.01-99,999,999,999.99
FRA	EUR	Fixed	EUR-LIBOR-BBA	1,225 days	0.01-99,999,999,999.99
FRA	EUR	Fixed	EUR-EURIBOR-Reuters	1,225 days	0.01-99,999,999,999.99
FRA	GBP	Fixed	GBP-LIBOR-BBA	1, 225 days	0.01-99,999,999,999.99
FRA	HUF	Fixed	HUF-BUBOR-Reuters	1,225 days	0.01-99,999,999,999.99
FRA	JPY	Fixed	JPY-LIBOR-BBA	1,225 days	1-10.000.000.000.000
FRA	NOK	Fixed	NOK-NIBOR-NIBR	1, 225 days	0.01-99,999,999,999.99
FRA	NOK	Fixed	NOK-NIBOR-OIBOR	1, 225 days	0.01-99,999,999,999.99
FRA	PLN	Fixed	PLN-WIBOR-WIBO	1, 225 days	0.01-99,999,999,999.99
FRA	SEK	Fixed	SEK-STIBOR-SIDE	1, 225 days	0.01-99,999,999,999.99
FRA	USD	Fixed	USD-LIBOR-BBA	1, 225 days	0.01-99,999,999,999.99

(c) Inflation rate swaps with constant notional principal having the characteristics set out in the table below:

<u>Instrument</u>	<u>Currency</u>	<u>Leg 1</u>	<u>Leg 2</u>	<u>Maximum Tenor</u>	<u>Notional Amount</u>
Zero coupon inflation indexed swap	EUR	Fixed	EUR-EXT-CPI	30 years	0.01-99,999,999,999.99
Standard coupon inflation	EUR	Fixed	EUR-EXT-CPI	30 years	0.01-99,999,999,999.99

indexed swap <sup>5</sup>					
Zero coupon inflation indexed swap	EUR	Fixed	FRC-EXT-CPI	30 years	0.01-99,999,999,999.99
Standard coupon inflation indexed swap	EUR	Fixed	FRC-EXT-CPI	30 years	0.01-99,999,999,999.99
Zero coupon inflation indexed swap	GBP	Fixed	UK-RPI	50 years	0.01-99,999,999,999.99
Standard coupon inflation indexed swap	GBP	Fixed	UK-RPI	50 years	0.01-99,999,999,999.99
Zero coupon inflation indexed swap	USD	Fixed	USA-CPI-U	30 years	0.01-99,999,999,999.99
Standard coupon inflation indexed swap	USD	Fixed	USA-CPI-U	30 years	0.01-99,999,999,999.99

(d) Non-deliverable interest rate swaps having the characteristics set out in the table below:

<u>Instrument</u>	<u>Currency</u>	<u>Leg 1</u>	<u>Leg 2</u>	<u>Variable Notional</u>	<u>Maximum Tenor</u>	<u>Notional Amount</u>
Interest rate swap	BRL	Fixed	BRL-CDI	No	4,050 days	0.01-99,999,999,999.99
OIS	CLP	Fixed	CLP-TNA	No	5,700 days	1.0-10,000,000,000,000
OIS	COP	Fixed	COP-IBR-OISCOMPOUND	No	5,700 days	1.0-10,000,000,000,000
Interest rate swap	KRW	Fixed	KRW-CD-KSDA-BLOOMBERG	No	<del>5,700</del> 7,700 days	1.0-10,000,000,000,000
OIS	INR	Fixed	INR-FBIL-MIBOR-OIS-COMPOUND	No	4,050 days	0.01-99,999,999,999.99
Interest rate swap	CNY	Fixed	CNY-CNREPOFIX=CFXS-REUTERS	No	2,025 days	0.01-99,999,999,999.99
Interest rate swap	THB	Fixed	THB-THBFIX-REUTERS	No	4,050 days	0.01-99,999,999,999.99
Interest rate swap	TWD	Fixed	TWD-TAIBOR-REUTERS	No	4,050 days	0.01-99,999,999,999.99

<sup>5</sup> A “standard coupon inflation swap” is an inflation vs. fixed swap, which pays out regular coupons on both legs of the swap.