

ICAP Benchmarks Family Methodology / Screen Protocol

Effective date 4th January 2021

Version 1.1

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Change History

Version Number	Editor	Date	Comments
0.1	John Ewan	20/11/2019	First draft
0.2	John Ewan	21/11/2019	Updated for Gareth Parker's comments
0.3	John Ewan	12/12/2019	Further updates
0.4	Gareth Parker	13/12/2019	Review
0.5	Gareth Parker	28/07/2020	Comprehensive update
0.6	Tobias Sproehnle	31/07/2020	Review
0.7	Tim Black	06/08/2020	Review
0.8	Gareth Parker	11/09/2020	Update from screen protocol documents
1.0	Tim Black	29/10/2020	Final
1.1	Gareth Parker	04/01/2021	Updated regulatory status (UK BMR)

Distribution

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1. Preamble

- 1.1. To ensure that benchmarks determined by ICAP Securities Ltd (“ICAP”), TP ICAP plc (“TP ICAP”) and administered by Moorgate Benchmarks Limited (“Moorgate”), are constructed, maintained and operated to the highest standards, and that appropriate governance arrangements are in place, these benchmarks are subject to Moorgate’s robust governance framework. This framework is used to administer and oversee existing benchmarks, approve new benchmarks, approve changes to the methodologies of existing benchmarks, and to oversee the endorsement of third country benchmarks and recognition of third country benchmark administrators under the UK and EU Benchmarks Regulations (“BMRs”).
- 1.2. This document sets out the methodology and screen protocol for the determination, management and governance of the benchmarks listed in the table below.
- 1.3. The benchmarks are administered in compliance with the BMRs.

2. List of benchmarks

Benchmark	Tenors						Page	Calculator
EUR 6M EURIBOR Swap - CME vs LCH	2yr	3yr	4yr	5yr	6yr		ICAPCCPBASIS4	ICAP Securities Ltd
	7yr	8yr	9yr	10yr	12yr	15y		
	20yr	25yr	30yr	40yr	50yr			
EUR 6M EURIBOR Swap - EUREX vs LCH	2yr	3yr	4yr	5yr	6yr		ICAPCCPBASIS4	ICAP Securities Ltd
	7yr	8yr	9yr	10yr	12yr	15y		
	20yr	25yr	30yr	40yr	50yr			
EUR 3M EURIBOR Swap - CME vs LCH	2yr	3yr	4yr	5yr	6yr		ICAPCCPBASIS5	ICAP Securities Ltd
	7yr	8yr	9yr	10yr	12yr	15y		
	20yr	25yr	30yr	40yr	50yr			
EUR 3M EURIBOR Swap - EUREX vs LCH	2yr	3yr	4yr	5yr	6yr		ICAPCCPBASIS5	ICAP Securities Ltd
	7yr	8yr	9yr	10yr	12yr	15y		
	20yr	25yr	30yr	40yr	50yr			
EUR Basis Swap - EONIA vs 3m EURIBOR Swap Rates-A/360	1yr	18mth	2yr	3yr	4yr	5yr	ICAPSHORT1	ICAP Securities Ltd
	6yr	7yr	8yr	9yr	10yr	11yr		
	12y	15yr	20yr	25yr	30yr	40yr		
	50yr	60yr						
EUR EURIBOR - Annual Bond Swap vs 1m	1yr	2yr	3yr	4yr	5yr	6yr	ICAPEURO2	ICAP Securities Ltd
	7yr	8yr	9yr	10yr	11yr	12y		
	15yr	20yr	25yr	30yr	40yr	50yr		
	60yr							
EUR EURIBOR Basis Swap - 3m vs 6m EURIBOR	1yr	2yr	3yr	4yr	5yr	6yr	ICAPEUROBASIS	ICAP Securities Ltd
	7yr	8yr	9yr	10yr	11yr	12y		
	15yr	20yr	25yr	30yr	40yr	50yr		
	60yr							
EUR EURIBOR Basis Swap - 1m vs 3m EURIBOR	1yr	2yr	3yr	4yr	5yr	6yr	ICAPEUROBASIS	ICAP Securities Ltd
	7yr	8yr	9yr	10yr	11yr	12y		
	15yr	20yr	25yr	30yr	40yr	50yr		
	60yr							
EUR Annual Swap Rate	1yr	2yr	3yr	4yr	5yr	6yr	ICAP/CMSM	ICAP Securities Ltd
	7yr	8yr	9yr	10yr	11yr	12y		
	15yr	20yr	25yr	30yr	35yr	40yr		
	45yr							
GBP 6M LIBOR Swap - CME vs LCH	2yr	3yr	4yr	5yr	6yr		ICAPCCPBASIS6	ICAP Securities Ltd
	7yr	8yr	9yr	10yr	12yr	15y		
	20yr	25yr	30yr	40yr	50yr			
GBP 6M LIBOR Swap - EUREX vs LCH	2yr	3yr	4yr	5yr	6yr		ICAPCCPBASIS6	ICAP Securities Ltd
	7yr	8yr	9yr	10yr	12yr	15y		
	20yr	25yr	30yr	40yr	50yr			
GBP Semi-Annual Swap Rate	1mth	2mth	3mth	4mth	5mth	6mth	ICAP2 / ICAPGBP	ICAP Securities Ltd
	9mth	12mth	15mth	18mth	2yr	3yr		
	4yr	5yr	6yr	7yr	8yr	9yr		
	10yr	11yr	12y	15yr	20yr	25yr		
	30yr	40yr	50yr	60yr				
CHF 6M LIBOR Swap - CME vs LCH	2yr	3yr	4yr	5yr	6yr		ICAPCCPBASIS7	ICAP Securities Ltd
	7yr	8yr	9yr	10yr	12yr	15y		
	20yr	25yr	30yr					
CHF 6M LIBOR Swap - EUREX vs LCH	2yr	3yr	4yr	5yr	6yr		ICAPCCPBASIS7	ICAP Securities Ltd
	7yr	8yr	9yr	10yr	12yr	15y		
	20yr	25yr	30yr					
CHF 3M LIBOR Swap - CME vs LCH	2yr	3yr	4yr	5yr	6yr		ICAPCCPBASIS8	ICAP Securities Ltd
	7yr	8yr	9yr	10yr	12yr	15y		
	20yr	25yr	30yr					
CHF 3M LIBOR Swap - EUREX vs LCH	2yr	3yr	4yr	5yr	6yr		ICAPCCPBASIS8	ICAP Securities Ltd
	7yr	8yr	9yr	10yr	12yr	15y		
	20yr	25yr	30yr					
CHF Basis Swap - 3m vs 6m LIBOR	1yr	2yr	3yr	4yr	5yr	6yr	ICAPCHFBASIS	ICAP Securities Ltd
	7yr	8yr	9yr	10yr	11yr	12y		
	15yr	20yr	25yr	30yr				
CHF Annual Swap Rate	1yr	2yr	3yr	4yr	5yr	6yr	ICAP/CMSM	ICAP Securities Ltd
	7yr	8yr	9yr	10yr	11yr	12y		
	15yr	20yr	25yr	30yr	35yr	40yr		
	45yr	50yr						

3. Defining the “Economic Reality”

- 3.1. ICAP provides mid-prices for the various swaps in which it provides broking services, derived from regulated market data and the trades and expressions of interest it receives. These mid prices are created to facilitate its broking activities, by providing an indication of the level of the implied mid-price in the relevant underlying swap rate, increasing transparency and the chances of successfully identifying counterparties for, and amongst its customers.
- 3.2. Each ICAP benchmark’s underlying economic reality¹ is an indication of the implied mid-price for the specific underlying swap, as listed and defined below, derived from data available to ICAP trading desks, as detailed in 5.11.
- 3.3. The benchmarks are therefore indicative and do not necessarily represent the level at which any trade has or could be executed in the future.
- 3.4. The mid-prices are anchored in verifiable bids, offers and trades received by the relevant ICAP trading desk, and using expert discretion where necessary, according to the governance principles outlined within this document and other policies and procedures followed by Moorgate Benchmarks and ICAP.
- 3.5. The benchmarks and this benchmark methodology document are regularly reviewed, to ensure they continue to reflect the relevant underlying economic reality.

Benchmark	Economic reality
EUR 6M EURIBOR Swap - CME vs LCH	The rate that prices the basis point differential between an annual fixed vs 6-month EURIBOR floating rate Euro interest rate swap transaction cleared at CME and an annual fixed vs 6-month EURIBOR floating rate Euro interest rate swap transaction cleared at LCH, derived from data provided to the ICAP EUR Swaps desk.
EUR 6M EURIBOR Swap - EUREX vs LCH	The rate that prices the basis point differential between an annual fixed vs 6-month EURIBOR floating rate Euro interest rate swap transaction cleared at Eurex and an annual fixed vs 6-month EURIBOR floating rate Euro interest rate swap transaction cleared at LCH, derived from data provided to the ICAP EUR Swaps desk.
EUR 3M EURIBOR Swap - CME vs LCH	The rate that prices the basis point differential between an annual fixed vs 3-month EURIBOR floating rate Euro interest rate swap transaction cleared at CME and an annual fixed vs 3-month EURIBOR floating rate Euro interest rate swap transaction cleared at LCH, derived from data provided to the ICAP EUR Swaps desk.
EUR 3M EURIBOR Swap - EUREX vs LCH	The rate that prices the basis point differential between an annual fixed vs 3-month EURIBOR floating rate Euro interest rate swap transaction cleared at Eurex and an annual fixed vs 3-month EURIBOR floating rate Euro interest rate swap transaction cleared at LCH, derived from data provided to the ICAP EUR Swaps desk.
EUR Basis Swap - EONIA vs 3m EURIBOR Swap Rates-A/360	The basis point differential between the swap rates for EONIA vs three month EURIBOR euro swap transactions on an Actual/360 basis, derived from data provided to the ICAP Euro IRS desk.
EUR EURIBOR - Annual Bond Swap vs 1m	The basis point differential between the EUR Annual Bond 30/360 Swap and the one month EURIBOR Spot transactions, derived from data provided to the ICAP Euro IRS desk.
EUR EURIBOR Basis Swap - 3m vs 6m EURIBOR	The rate that prices the basis point differential between three month EURIBOR vs six month EURIBOR Spot transactions, derived from data provided to the ICAP Euro IRS desk.
EUR EURIBOR Basis Swap - 1m vs 3m EURIBOR	The rate that prices the basis point differential between one month EURIBOR vs three month EURIBOR Spot transactions, derived from data provided to the ICAP Euro IRS desk.
EUR Annual Swap Rate	The annual swap rate for euro swap transactions with a maturity of the Designated Maturity, derived from data provided to the ICAP Euro IRS desk.
GBP 6M LIBOR Swap - CME vs LCH	The rate that prices the basis point differential between a semi-annual fixed vs 6-month LIBOR floating rate Sterling interest rate swap transaction cleared at CME and a semi-annual fixed vs 6-month LIBOR floating rate Sterling interest rate swap transaction cleared at LCH, derived from data provided to the ICAP GBP Swaps desk.
GBP 6M LIBOR Swap - EUREX vs LCH	The rate that prices the basis point differential between a semi-annual fixed vs 6-month LIBOR floating rate Sterling interest rate swap transaction cleared at Eurex and a semi-annual fixed vs 6-month LIBOR floating rate Sterling interest rate swap transaction cleared at LCH, derived from data provided to the ICAP GBP Swaps desk.

¹ The term “economic reality” is used, but not defined, within the BMR. It is clearly however the terms used to describe the entity, economic interest or exposure being valued by the benchmark.

Benchmark	Economic reality
GBP Semi-Annual Swap Rate	The semi-annual swap rate for GBP swap transactions, derived from data provided to the ICAP GBP IRS desk.
CHF 6M LIBOR Swap - CME vs LCH	The rate that prices the basis point differential between an annual fixed vs 6-month LIBOR floating rate Swiss Franc interest rate swap transaction cleared at CME and an annual fixed vs 6-month LIBOR floating rate Swiss Franc interest rate swap transaction cleared at LCH, derived from data provided to the ICAP CHF Swaps desk.
CHF 6M LIBOR Swap - EUREX vs LCH	The rate that prices the basis point differential between an annual fixed vs 6-month LIBOR floating rate Swiss Franc interest rate swap transaction cleared at Eurex and an annual fixed vs 6-month LIBOR floating rate Swiss Franc interest rate swap transaction cleared at LCH, derived from data provided to the ICAP CHF Swaps desk.
CHF 3M LIBOR Swap - CME vs LCH	The rate that prices the basis point differential between an annual fixed vs 3-month LIBOR floating rate Swiss Franc interest rate swap transaction cleared at CME and an annual fixed vs 3-month LIBOR floating rate Swiss Franc interest rate swap transaction cleared at LCH, derived from data provided to the ICAP CHF Swaps desk.
CHF 3M LIBOR Swap - EUREX vs LCH	The rate that prices the basis point differential between an annual fixed vs 3-month LIBOR floating rate Swiss Franc interest rate swap transaction cleared at Eurex and an annual fixed vs 3-month LIBOR floating rate Swiss Franc interest rate swap transaction cleared at LCH, derived from data provided to the ICAP CHF Swaps desk.
CHF Basis Swap - 3m vs 6m LIBOR	The basis point differential between the swap rates for three month LIBOR vs six month LIBOR Swiss Franc swap transactions, derived from data provided to the ICAP CHF Swaps desk.
CHF Annual Swap Rate	The annual swap rate for Swiss Franc swap transactions with a maturity of the Designated Maturity, derived from data provided to the ICAP CHF Swaps desk.

4. Governance and responsibilities

Moorgate Benchmarks Limited

- 4.1. The benchmark administrator of these benchmarks is Moorgate Benchmarks Limited (“Moorgate”). Moorgate is regulated by the Financial Conduct Authority as a registered benchmark administrator under the UK benchmarks regulation.
- 4.2. The administrator has overall responsibility for and control over all aspects of the provision of the benchmark.
- 4.3. Day to day responsibility for certain aspects of the provision of the benchmark is devolved to ICAP plc, under the oversight of Moorgate Benchmarks Limited and the Moorgate Benchmarks Oversight Function.

ICAP Securities Ltd

- 4.4. The benchmarks are owned, licenced, calculated and distributed by ICAP Securities Ltd.
- 4.5. ICAP is responsible for the collection of input data and validation of this data in line with the ICAP Benchmarks Input Data Policy, for the determination of the benchmarks according to this methodology, and for the licencing and distribution of the benchmarks. In this role ICAP is subject to various other policies and procedures that ensure the indices are determined in compliance with the BMRs.

Moorgate Benchmarks Oversight Function²

- 4.6. The Moorgate Benchmarks Oversight Function (the “Oversight Function”) comprises independent members and members drawn from Moorgate Benchmarks Limited and Moorgate Benchmarks GmbH. Its Chair is appointed by Moorgate Benchmarks Limited; members are appointed by joint decision of Moorgate Benchmarks Limited and the Chair.
- 4.7. The Oversight Function is responsible for ensuring that Benchmarks are at all times determined and operated in compliance with the EU Benchmark Regulation.
- 4.8. Certain aspects of the oversight of the benchmarks are delegated to the ICAP Benchmark Oversight Committee (“the Committee”) but overall responsibility is retained by the Oversight Function.
- 4.9. The Oversight Function is additionally responsible for:
 - 4.10. reviewing the benchmark's definition and methodology at least annually
 - 4.11. determining and keeping under review the Terms of Reference for the Committee
 - 4.12. reviewing and approving the agenda and minutes of the Committee
 - 4.13. considering internal or external audits commissioned by the Committee and monitoring the implementation of any identified remedial actions
 - 4.14. review and maintenance of all policies and procedures relating to the determination and management of the Benchmarks
 - 4.15. approving any changes to this methodology
 - 4.16. overseeing the work of the Committee and its management of the benchmarks and the desk's operation of the benchmarks

² The Oversight Function's full terms of reference are set out in a separate document. (Moorgate Benchmarks Oversight Committee Terms of Reference v2.4 Final)

- 4.17. commissioning any consultations regarding change to or cessation of the benchmarks, considering the feedback to such consultation and determining and managing the response to all feedback in line with the material change or cessation policy
- 4.18. The Oversight Function is able at all times to call on the expertise of desk heads, staff involved in benchmark determination and other ICAP staff and directors.
- 4.19. Full details of its responsibilities are detailed within the Oversight Function's terms of reference.

TP ICAP Benchmarks Oversight Committee³

- 4.20. The TP ICAP Benchmarks Oversight Committee (the "Committee") comprises members drawn from TP ICAP and Moorgate Benchmarks Limited, and may also include members drawn from Moorgate Benchmarks GmbH. Its Chair is appointed by Moorgate Benchmarks Limited.
- 4.21. The Committee is responsible for the management and implementation of this methodology, for its continuing fitness for purpose, and for any amendments. It is also responsible for overseeing the actions of the individual desks responsible for determining the benchmarks.
- 4.22. In the event of the methodology not providing a clear process for the management of any situation, the Committee will recommend the process to be followed. The view of the Oversight Function and the relevant desk will be sought where possible (given available time), and in each case details of the process followed referred to the Oversight Function for its review.
- 4.23. The Committee is responsible for defining and considering the appropriate management information that will enable it to monitor:
 - 4.23.1. the timeliness and accuracy of the benchmark determinations
 - 4.23.2. that the benchmark remains the optimal methodology for measuring the market it seeks to represent
 - 4.23.3. the size and normal liquidity of the market, the transparency of trading and the positions of market participants, market concentration, market dynamics, and the adequacy of any sample to represent the market or economic reality that the benchmark is intended to measure.
- 4.24. The Committee's powers are delegated to it by the administrator, Moorgate Benchmarks Limited, and its exercise of them overseen by the Moorgate Benchmarks Oversight Function. All actions of the Committee are subject to review and approval of the Administrator.
- 4.25. The Committee convenes on a monthly basis, or more often if required, and can at all times call on the expertise of desk heads, staff involved in benchmark determination and other TP ICAP staff and directors.
- 4.26. Full details of its responsibilities are detailed within the Committee's terms of reference.

Benchmark Methodology Changes

- 4.27. Members of the TP ICAP Benchmark Oversight Committee, the Moorgate Benchmarks Oversight Function and benchmark stakeholders may at any time recommend changes to these Rules by submitting any proposed changes for consideration and approval in advance of the Committee's next meeting.

³ The TP ICAP Benchmarks Oversight Committee's full terms of reference are set out in a separate document. (TP ICAP Benchmarks Oversight Committee – TOR v1)

- 4.28. Proposed changes that the Committee and Oversight Function deem material will be consulted on, as per the Moorgate Benchmarks Cessation and Material Change Policy.
- 4.29. Following approval by the Committee and Oversight Function, any changes shall be implemented by way of an update to this methodology document.

5. Benchmark formation

- 5.1. The methodology used in the administration of the benchmarks to form the benchmark prices (also known as “screen principles” by many benchmark users) is as follows.
- 5.2. Benchmark levels may only be determined by the desk head and other suitable staff nominated by the desk head in line with the TP ICAP Benchmarks Expert Judgement Policy and the process detailed below.

Benchmark open

- 5.3. The desk responsible for determination of a benchmark will take the previous day’s close price as its basis for determining the benchmark opening price.
- 5.4. Where there is pre-open trading on a futures or other regulated data exchange with mandatory post trade transparency, or other observable trading, in instruments that are similar or have well understood correlation with the product each desk trades, price movements in these will be factored in to the opening price. This is overlaid with a view of the market formed by staff on the desk responsible for determination of the benchmark, who then determine the open price.
- 5.5. Where there is not observable pre-open trading, the previous close will be used as the open price, although this may be overlaid with a view of the market by staff on the desk responsible for the determination of the benchmark, based on overnight market-moving news and events. In these cases, immediately upon open staff on the desk will seek to validate or challenge these prices via interaction with clients.

Eligible input data

- 5.6. Trades or trading interests received meeting minimum market sizes, denominated in notional amounts, are the benchmarks’ primary input. Minimum market sizes are detailed in the appendices.
- 5.7. Relevant trade data from futures or other regulated data exchanges with mandatory post trade transparency,
- 5.8. Trading interests that are restricted or qualified in such a way that they are only valid for a limited list of market participants, are excluded.
- 5.9. Only clients that have agreed to be bound by ICAP Terms of Business and that have been fully onboarded by ICAP can agree transactions or show bids/offers to ICAP staff.
- 5.10. Where a market exists in any structure, whether outright, curve spread or butterfly, at a price that is inside the incremental movement for screen update, there will be no mid reflection from that order.

5.11. Input data used in the determination of the benchmarks is detailed below.

	Benchmark		Calculator
1	EUR 6M EURIBOR Swap - CME vs LCH	Primary sources: Voice Broking ICAP i-Swap MTF Secondary sources: BOBL futures Bund futures EURIBOR futures	ICAP Securities Ltd
2	EUR 6M EURIBOR Swap - EUREX vs LCH		ICAP Securities Ltd
3	EUR 3M EURIBOR Swap - CME vs LCH		ICAP Securities Ltd
4	EUR 3M EURIBOR Swap - EUREX vs LCH		ICAP Securities Ltd
5	EUR Basis Swap - EONIA vs 3m EURIBOR Swap Rates-A/360		ICAP Securities Ltd
6	EUR EURIBOR - Annual Bond Swap vs 1m		ICAP Securities Ltd
7	EUR EURIBOR Basis Swap - 3m vs 6m EURIBOR		ICAP Securities Ltd
8	EUR EURIBOR Basis Swap - 1m vs 3m EURIBOR		ICAP Securities Ltd
9	EUR Annual Swap Rate		ICAP Securities Ltd
10	GBP 6M LIBOR Swap - CME vs LCH	Primary sources: Voice Broking ICAP i-Swap MTF Secondary sources: Short sterling futures Gilt futures Cash bonds	ICAP Securities Ltd
11	GBP 6M LIBOR Swap - EUREX vs LCH		ICAP Securities Ltd
12	GBP Semi-Annual Swap Rate		ICAP Securities Ltd
13	CHF 6M LIBOR Swap - CME vs LCH	Primary sources: Voice Broking Secondary sources: Relevant internal financial models, forward FX rates, bond pricing, underlying futures markets and and all other instruments and markets deemed to have some effect on such prices	ICAP Securities Ltd
14	CHF 6M LIBOR Swap - EUREX vs LCH		ICAP Securities Ltd
15	CHF 3M LIBOR Swap - CME vs LCH		ICAP Securities Ltd
16	CHF 3M LIBOR Swap - EUREX vs LCH		ICAP Securities Ltd
17	CHF Basis Swap - 3m vs 6m LIBOR		ICAP Securities Ltd
18	CHF Annual Swap Rate		ICAP Securities Ltd

Determination of the benchmarks throughout trading hours

- 5.12. Throughout the day, as input data is received, ICAP's mid-prices will move dynamically.
- 5.13. Throughout trading hours these prices will be continually assessed by reference to transactions brokered in market sizes as defined below, and expressions of interest received by staff on the relevant desk, either by telephone, instant messenger or proprietary electronic systems, and if deemed necessary, adjusted.
- 5.14. Further detail is available in the "Principles" section of the appendices.
- 5.15. This process uses expert judgement, following these principles:
 - 5.15.1. Priority is given to interests received and the nature of the trading interest, with the order of priority being outrights, then curve spreads and finally butterflies.
 - 5.15.2. Discretion is retained to use trades executed and trading interests received that are smaller than market sizes, if deemed appropriate to maintain an accurate price.⁴
 - 5.15.3. In forming the mid-price, the chronological order of trading will always be taken into consideration.
 - 5.15.4. In the absence of trading interests, the ICAP mid prices will continue to update, based on live levels of the appropriate futures trading in order to maintain the smoothness of the previous forward curve.
 - 5.15.5. In the absence of counter interests, the last active trading interest will be reflected on the screen, in accordance with this protocol market size.
- 5.16. The determination of the benchmarks is governed by the TP ICAP Benchmarks Input Data Policy and by the TP ICAP Benchmarks Expert Judgement Policy.

Integrity and Independence

- 5.17. It is not always possible for the broking desks to be aware of (or independently validate) every order and every price in the market.
- 5.18. The broking desks must, at times, exercise discretion when recalculating prices in markets where prices, by the very nature of the markets being covered, can be episodic and non-continuous.
- 5.19. It is a regulatory requirement that ICAP operates its screens with the utmost integrity and independence. ICAP brokers are required to assert sound judgement in all that they do. In order to maintain integrity and independence, ICAP brokers cannot be unduly influenced in any way by external parties or customers. When in doubt and/or when external price movements cannot be evidenced, the desks reserve the right not to update screens.

Error Correction

- 5.20. Where an incorrect benchmark determination occurs, the desk responsible for the determination of the benchmark is responsible for informing the the Committee at the earliest possible opportunity, and for following the procedures laid out in the TP ICAP Benchmarks Error Correction Policy.

⁴ If a trading interest is retracted, the screen revert back to prior reflected mid.

Additional information

5.21. Information specific to individual benchmarks is detailed in the screen protocols maintained by ICAP's trading desks, which are attached as this document's appendices, referenced as per the table below.

	Benchmark	Page	Calculator	Specific criteria
1	EUR 6M EURIBOR Swap - CME vs LCH	ICAPCCPBASIS4	ICAP Securities Ltd	Appendix 1 -EUR IRS
2	EUR 6M EURIBOR Swap - EUREX vs LCH	ICAPCCPBASIS4	ICAP Securities Ltd	Appendix 1 -EUR IRS
3	EUR 3M EURIBOR Swap - CME vs LCH	ICAPCCPBASIS5	ICAP Securities Ltd	Appendix 1 -EUR IRS
4	EUR 3M EURIBOR Swap - EUREX vs LCH	ICAPCCPBASIS5	ICAP Securities Ltd	Appendix 1 -EUR IRS
5	EUR Basis Swap - EONIA vs 3m EURIBOR Swap Rates-A/360	ICAPSHORT1	ICAP Securities Ltd	Appendix 1 -EUR IRS
6	EUR EURIBOR - Annual Bond Swap vs 1m	ICAPEURO2	ICAP Securities Ltd	Appendix 1 -EUR IRS
7	EUR EURIBOR Basis Swap - 3m vs 6m EURIBOR	ICAPEUROBASIS	ICAP Securities Ltd	Appendix 1 -EUR IRS
8	EUR EURIBOR Basis Swap - 1m vs 3m EURIBOR	ICAPEUROBASIS	ICAP Securities Ltd	Appendix 1 -EUR IRS
9	EUR Annual Swap Rate	ICAPEURO	ICAP Securities Ltd	Appendix 1 -EUR IRS
10	GBP 6M LIBOR Swap - CME vs LCH	ICAPCCPBASIS6	ICAP Securities Ltd	Appendix 2 -GBP IRS
11	GBP 6M LIBOR Swap - EUREX vs LCH	ICAPCCPBASIS6	ICAP Securities Ltd	Appendix 2 -GBP IRS
12	GBP Semi-Annual Swap Rate	ICAP2 / ICAPGBP	ICAP Securities Ltd	Appendix 2 -GBP IRS
13	CHF 6M LIBOR Swap - CME vs LCH	ICAPCCPBASIS7	ICAP Securities Ltd	Appendix 3 -CHF IRS
14	CHF 6M LIBOR Swap - EUREX vs LCH	ICAPCCPBASIS7	ICAP Securities Ltd	Appendix 3 -CHF IRS
15	CHF 3M LIBOR Swap - CME vs LCH	ICAPCCPBASIS8	ICAP Securities Ltd	Appendix 3 -CHF IRS
16	CHF 3M LIBOR Swap - EUREX vs LCH	ICAPCCPBASIS8	ICAP Securities Ltd	Appendix 3 -CHF IRS
17	CHF Basis Swap - 3m vs 6m LIBOR	ICAPCHFBASIS	ICAP Securities Ltd	Appendix 3 -CHF IRS
18	CHF Annual Swap Rate	ICAP/CMSM	ICAP Securities Ltd	Appendix 3 -CHF IRS

6. Calculation Times

6.1. The following table shows the calculation times of the benchmarks, on good business days.

Benchmark	Open time (London)	Close time (London)
EUR 6M EURIBOR Swap - CME vs LCH	07:00	18:00
EUR 6M EURIBOR Swap - EUREX vs LCH	07:00	18:00
EUR 3M EURIBOR Swap - CME vs LCH	07:00	18:00
EUR 3M EURIBOR Swap - EUREX vs LCH	07:00	18:00
EUR Basis Swap - EONIA vs 3m EURIBOR Swap Rates-A/360	07:00	18:00
EUR EURIBOR - Annual Bond Swap vs 1m	07:00	18:00
EUR EURIBOR Basis Swap - 3m vs 6m EURIBOR	07:00	18:00
EUR EURIBOR Basis Swap - 1m vs 3m EURIBOR	07:00	18:00
EUR Annual Swap Rate	07:00	18:00
GBP 6M LIBOR Swap - CME vs LCH	07:30	17:15
GBP 6M LIBOR Swap - EUREX vs LCH	07:30	17:15
GBP Semi-Annual Swap Rate	07:30	17:15
CHF 6M LIBOR Swap - CME vs LCH	07:30	16:30
CHF 6M LIBOR Swap - EUREX vs LCH	07:30	16:30
CHF 3M LIBOR Swap - CME vs LCH	07:30	16:30
CHF 3M LIBOR Swap - EUREX vs LCH	07:30	16:30
CHF Basis Swap - 3m vs 6m LIBOR	07:30	16:30
CHF Annual Swap Rate	07:30	16:30

7. Periodic Review

- 7.1. The ICAP benchmarks and the efficacy of the methodology are kept under continual review by the ICAP trading desks and Moorgate Benchmarks Limited.
- 7.2. Both the benchmarks and the methodology receive a periodic formal review to ensure the benchmarks remain appropriate representations of the underlying economic reality.
- 7.3. Therefore, this methodology and the policies and procedures that govern the benchmarks may be updated from time to time.
- 7.4. The periodic review is carried out by the TP ICAP Benchmarks Oversight Committee and overseen by the Moorgate Benchmarks Oversight Function. This process is documented within the TP ICAP Benchmarks Review Policy.
- 7.5. Changes to the benchmarks and the methodology are subject to the Moorgate Benchmarks Cessation or Material Change Policy and can only be implemented after approval by the TP ICAP Benchmarks Oversight Committee and Moorgate Benchmarks Limited.

8. Calculation of the Benchmarks in the event of a Market Disruption Event

- 8.1. One or more of the benchmarks may not be calculated in the event of a market disruption event. If the market disruption event continues for a sustained period, the Moorgate Benchmarks Oversight Function and the TP ICAP Benchmark Oversight Committee will agree how to calculate the benchmark values, taking into account the market conditions prevailing at this point in time, the last quoted trading price for each of the benchmark constituents as well as any other conditions that they deem relevant for calculating a fair value benchmark value.

9. Exceptions to these Rules

- 9.1. Moorgate Benchmarks Limited and ICAP notify users of the benchmarks that whilst it is the policy of Moorgate Benchmarks as administrator to consult fully on any possible change to a benchmark, it is possible that circumstances, particularly external events beyond the control of Moorgate Benchmarks and ICAP, may necessitate immediate changes to, or the cessation of, a benchmark and therefore, any financial contracts or other financial instruments that reference the benchmarks, or any market participants that use the benchmarks in valuations should plan to be able to manage the possibility of changes to, or cessation of, the benchmarks. Please consult the Moorgate Benchmarks Cessation or Material Change Policy for further details.

10. Data and Licencing

Data distribution

- 10.1. Benchmark data is published via various data vendors under licence from ICAP Securities Ltd. Each vendor determines whether they will distribute/display the benchmark data via their respective information systems.

Licensing

- 10.2. Licenses to use the indices as the underlying value for derivative instruments may be issued to stock exchanges, banks, financial services providers and investment houses by ICAP Securities Ltd.

11. Further information

11.1. For further information regarding the inputs, verification and oversight of the benchmarks, please contact info@moorgatebenchmarks.com

11.2. For further information about the calculation, distribution and licencing of the benchmarks, please contact info@tpicap.com.

12. Legal

12.1. Users who choose to follow these benchmarks or to buy or sell products that are linked to these benchmarks should assess the merits of the methodology and take independent investment advice before investing their own or client funds.

12.2. No liability whether as a result of negligence or otherwise is accepted by ICAP Securities Ltd or Moorgate Benchmarks Limited for any losses, damages, claims and expenses suffered by any person as a result of:

- any reliance on this methodology
- any errors or inaccuracies in this methodology
- any non-application or misapplication of the policies or procedures described in this methodology
- any errors or inaccuracies in the calculation or distribution of the benchmark

12.3. The intellectual property within the benchmarks is owned by ICAP Securities Ltd.

12.4. This document is the intellectual property of Moorgate Benchmarks and © 2021 Moorgate Benchmarks Limited.

13. Appendices

1. Further information regarding benchmark / screen setting principles

1.1. The following provides further detail regarding the screen practices / benchmark determination process followed by the various ICAP broking desks, and in particular, seeks to guide stakeholders as to the protocols and policies used for screen & mid movements.

1.2. The following desks are involved in the determination of the various ICAP benchmarks:

Desk list	Short name	Broking Services	Desk contact
ICAP Swiss Off Balance Sheet Desk	Swiss OBS desk	Swiss products including interest rate swaps (IRS), Single Currency Swiss Basis (Basis), FRAs and OIS	Jonathan Franklin jonathan.franklin@icap.com
ICAP Sterling Off Balance Sheet Desk	£ OBS desk	Sterling products including Interest Rate Swaps (IRS), Single Currency Basis (Basis), Forward Rate Agreements (FRAs), Overnight Index Swaps (OIS) and Sonia Libor (SL), Base Rate/Libor Basis, Sonia/Base Rate Basis, Base Rate Swaps, CCP Basis	Alex Wood alex.wood@icap.com Simon Fenton simon.fenton@icap.com
ICAP Euro Interest Rate Swaps Desk	Euro IRS desk	Euro interest rate swaps (IRS) and Single currency Euro/Euro Basis Swaps (Basis), Forward Rates Agreements (FRAs), Overnight Index Swaps (OIS)and CCP Basis	Duncan Giles duncan.giles@icap.com

1.3. Questions regarding screen practices can be referred to the contacts named in the table.

2. ICAP EUR IRS

The Principles which influence the indicative prices

- 2.1. Due to running an integrated model of voice and electronic markets both in terms of price interaction and externally published indicative mids, ICAP wishes to treat each market fairly and with a similar approach to protocol while acknowledging the unique features of the voice and electronic markets.
- 2.2. All voice IOIs will therefore be matched with the best corresponding bid or offer, whether that is voice or electronic. In order to apply the same logic, the following principles apply:
 - 2.2.1. The notional amounts in Appendix 1 apply to both voice and electronic markets and will determine changes to the curve.
 - 2.2.2. Due to the hybrid features of the voice and electronic market, our externally published indicative mids may not reflect electronic trades when a better bid or offer is available in the voice market and is still available.
 - 2.2.3. Opposing electronic orders that are through the level of an existing voice order are flagged internally. This ensures oversight of the interaction between the unique features of electronic and voice markets and does not imply intent.
 - 2.2.4. Any pure voice trade occurring outside of i-Swap which is greater than or equal to the Block Size that is traded in one notional block amount as a bilateral negotiation, will affect the published pages and will be reported to market participants unless requested not to by both parties to the trade.
 - 2.2.5. In the absence of trading interests, the ICAP mids will continue to update, based on live levels of Euribor, Bobl and Bund futures trading in order to maintain the smoothness of the previous forward curve.
 - 2.2.6. The ICAP Euro IRS desk will always take into consideration the chronological order of trading interests received and the nature of the trading interest, with the order of priority being outrights, then outrights with Futures crosses, then curve spreads and finally butterflies.
 - 2.2.7. Only trading interests that are in the minimum sizes (or larger) and also trading interests that remain in the market for a reasonable period of time for the market to trade on that price, are used to reflect the mid.
 - 2.2.8. The notional amounts in the appendices are in millions. The “reflection plus a margin” = 1/10th basis point for Euro IRS and Basis, except 3x6 basis which = 1/20th bp.
 - 2.2.9. Where a market exists on an outright tenor of 1/10th bp wide, any incremental price improvement will have no impact on our published mid.
 - 2.2.10. Any trading interests that are restricted or qualified in such a way that they are valid for a limited list of market participants will not impact the mid.
 - 2.2.11. ICAP has a regulatory obligation to maintain and support orderly markets. Any voice or electronic behaviour that could be interpreted as manipulative or disruptive will be flagged to our internal Compliance teams for investigation.

Matrix of Notional trade/trading interest sizes

- 2.3. See table 1A below.
- 2.4. The four columns refer to sizes:
 - 2.4.1. **No impact on mid** - (e.g. a trading interest of 8m 10yr will have no impact on mid);

- 2.4.2. **Mid reflection** - (e.g. if 10yr mid =2.032 and a bid is shown to pay 2.032 in 30m, then the mid will not change. If our mid was 2.032 in 10yr and a bid is shown at 2.033 in 30m then our mid would move to 2.033 and then move in line with Eurex futures);
- 2.4.3. **Mid reflection plus a margin** - the margin in Euro will be 1/10th bp (e.g. if 10yr mid = 2.032 and a bid is shown to pay 2.032 in 50m or more, our mid would be adjusted to 2.033). If liquidity changes either way, ICAP will advise change of the Euro margin (currently 1/10th bp) via email providing one week's notice;
- 2.4.4. **Block Sizes** - any trade occurring outside of i-Swap which is greater than or equal to the Block Size that is traded in one notional block amount will affect the published pages and will be reported to market participants unless requested not to by both parties to the trade.

Outright IRS spread amounts for mid reflection plus a margin

- 2.5. Shown in table 1B below.
- 2.6. The exceptions/additions to the above are:
 - 2.6.1. All spreads of 1yr gap or less = minimum of 200m longer leg.
 - 2.6.2. All spreads of 2yr gap = 100m longer leg
 - 2.6.3. All spreads that are 3yr gap or more but less than 10yr gap (e.g. 5x12) will use the greater of either the amounts shown in the matrix or 50m.

IRS butterflies

- 2.7. Any butterfly of 3yr gap or less, on both gaps, needs to be in a minimum of 200m to have an impact on our mid, excluding any combination between, and inclusive, 1yr to 5yr which needs to be in 400m body to have mid reflection plus a margin. (This covers 1x2x3, 2x3x4 & 2x3x5 all in 400m body and also 3x5x7, 5x7x10 and 13x14x15 to be in min of 200m body).
- 2.8. Any butterfly with any gap longer than 3yr (so 2x5x10, 10x15x30, 20x25x30 etc.) needs to be in a minimum of 100m body for mid reflection plus a margin (the only exceptions to that rule are 30x40x50 and 40x50x60 flies at 50m), as long as any of those butterflies do not oppose the mid reflection for outright, outright with Futures crosses & curve spreads in that order of priority.
- 2.9. If the underlying interest of any Eurex future or cash bond is substantially less than the liquidity of the swap market (for example the BUXL in comparison to 30yr swap), then this will not be used as an accepted metric.

Basis outright amounts

- 2.10. All Basis amounts for 3x6, 3x1, 6x1, 3x12 & 6x12, Eonia v Euribor Basis, CCP Basis (Eurex v LCH and CME v LCH), are shown in tables 1C and 1D below.
- 2.11. ICAP reserves the right to amend these amounts if we regularly observe a change in sizes traded.

Basis Spread amounts in 3x6 for mid reflection plus a margin

All 1yr gap spreads	= 500m longer leg
All 2yr gap spreads	= 250m longer leg
All 3yr gap spreads	= 200m longer leg
All 4yr or 5yr gap spreads	= the greater of either 100m longer leg or the longer leg outright amount, using mid reflection plus a margin sizes. (e.g. 2x6 = 200m and 20x25 = 100m)
All spreads longer than 5yr gap	to be in minimum size of the longer leg outright amount, using mid reflection plus a margin sizes.

Basis Spread amounts in Eonia/Euribor, 3x1, 6x1, 3x12 & 6x12, CCP Basis (Eurex v LCH and CME v LCH) for mid reflection plus a margin

All 1yr gap spreads	= 250m longer leg
All 2yr, 3yr, 4yr & 5yr gap spreads	= the greater of either 100m longer leg (e.g. 6x8, 9x12, 5x10 & 20x25), or the longer leg outright amount, using mid reflection plus a margin sizes (e.g. 1x4 = 250m)
All spreads longer than 5yr gap	to be in minimum size of the longer leg outright amount, using mid reflection plus a margin sizes.

Basis Butterfly amounts for all Basis structures for mid reflection plus a margin

All flies between, and inclusive, 1yr to 5yr	= 500m body (e.g. 2x3x4 & 2x3x5)
All 1yr gap flies where short leg is 5yr or longer	= 500m body (e.g. 5x6x7, 11x12x13 & 20x21x22)
Any other fly	= 250m body

- 2.12. In all Basis structures, we will also take into consideration the chronological manner that trading interests are given to us and the nature of the trading interests, with the order of priority being outrights, then spreads and finally butterflies.

Market Notifications

- 2.13. If the ICAP Euro IRS desk observes market size changes over a sustained period, it reserves the right to adjust the notional amounts either up or down, giving the market one week's notice before the change will be implemented.
- 2.14. Changes to these Principles will be notified to the market at the discretion of ICAP Securities Ltd.

Table 1C - Outright Basis notional amounts for 3x6 Basis

	No impact on mid	Mid reflection	Mid reflection plus a margin	Block
1y	0 to <250	250 to <500	500+	1500
2y	0 to <150	150 to <250	250+	750
3y	0 to <100	100 to <250	250+	600
4y	0 to <100	100 to <250	250+	600
5y	0 to <100	100 to <200	200+	500
6y	0 to <100	100 to <200	200+	500
7y	0 to <100	100 to <200	200+	500
8y	0 to <100	100 to <200	200+	400
9y	0 to <100	100 to <150	150+	400
10y	0 to <100	100 to <150	150+	350
11y	0 to <75	75 to <100	100+	350
12y	0 to <75	75 to <100	100+	350
15y	0 to <75	75 to <100	100+	250
20y	0 to <40	40 to <75	75+	200
25y	0 to <30	30 to <50	50+	200
30y	0 to <25	25 to <50	50+	200
35y	0 to <25	25 to <50	50+	100
40y	0 to <25	25 to <50	50+	100
45y	0 to <25	25 to <50	50+	100
50y	0 to <25	25 to <50	50+	100
60y	0 to <25	25 to <50	50+	100

Table 1D - Outright Basis Notional Amounts for Eonia v Euribor, 3x1, 6x1, 3x12 & 6x12 Basis and CCP Basis (Eurex v LCH and CME v LCH)

	No impact on mid	Mid reflection	Mid reflection plus a margin	Block
1y	0 to <250	250 to <400	400+	1500
2y	0 to <100	100 to <250	250+	750
3y	0 to <100	100 to <200	200+	600
4y	0 to <100	100 to <150	150+	400
5y	0 to <100	100 to <150	150+	400
6y	0 to <100	100 to <150	150+	400
7y	0 to <100	100 to <150	150+	400
8y	0 to <75	75 to <100	100+	250
9y	0 to <75	75 to <100	100+	250
10y	0 to <75	75 to <100	100+	250
11y	0 to <75	75 to <100	100+	250
12y	0 to <75	75 to <100	100+	250
15y	0 to <50	50 to <100	100+	200
20y	0 to <25	25 to <50	50+	200
25y	0 to <25	25 to <50	50+	200
30y	0 to <25	25 to <50	50+	200
35y	0 to <25	25 to <50	50+	100
40y	0 to <25	25 to <50	50+	100
45y	0 to <25	25 to <50	50+	100
50y	0 to <25	25 to <50	50+	100
60y	0 to <25	25 to <50	50+	100

Table 1E - "Plus a margin" amounts

EUR IRS and Basis (excl. 3x6 basis and CCP Basis)	- 1/10 th basis point
EUR 3x6 basis and CCP Basis	- 1/20 th basis point

3. Appendix 2 - ICAP GBP IRS

The Principles which influence the indicative prices on our screens

- 3.1. The notional amounts in the tables below apply to both voice and electronic markets and will determine changes to the curve.
- 3.2. **iSwap** – Outright and Future Yield orders on mid in market size will automatically affect the mid, after a pre-determined time, if not countered 0.1bp away (iSwap or voice). A trade will also be automatically reflected, after a pre-determined time, if in market size.
 - 3.2.1. An outright 10y swap price will take precedent over the future yield. Therefore, when there is an outright 10y interest to trade, the interest to trade future yield will be ignored if the outright meets the requirements to move the published mid.
 - 3.2.2. If the published mid is auto-adjusted from an iSwap order and is contrary to a previous voice trading interest, then the desk will adjust the curve to best reflect all the trading interests.
 - 3.2.3. Spreads and flies in iSwap, will not automatically move or prevent the screen from moving unless the derived outright trading interest meets the requirements for screen movement. Spreads and flies in iSwap are firm orders and therefore will take priority over voice trading interests that are not repeated when the desk is adjusting the curve.
- 3.3. Any trading interests that are restricted or qualified in such a manner that they are only valid for a limited list of market participants may not be considered when assessing the screen mid-price.
- 3.4. The chronological manner and nature of trading interests given to the £ OBS Desk will be taken into consideration when updating the screen, with the order of priority being given to 'outright' trading interests, then 10y future yield and curve trading interests equal, then gilt spreads, and finally butterflies. If one trading interest is contradictory to another then this sequence will be applied.
- 3.5. The £ OBS desk will prioritise updates to the screen mid prices on trading interests received and trades executed by its market participants that are equal to or above accepted market sizes.
- 3.6. The £ OBS Desk will continue to trade in smaller than minimum sizes, but reserves the right to ignore these trading interests in respect of screen mid-price reflection. For example, £10m 10/30's will be reflected slower, if at all, than a market size trading interest. An opposing trading interest in market size will take precedence for mid reflection.
- 3.7. Only trading interests that remain in the market for a reasonable period of time are used to reflect the mid-price. If trading interests are retracted, or not repeated, once the mid-price has been reflected, then the £ OBS Desk may return the screen to the previous mid-price where appropriate.
- 3.8. Outright amounts for each instrument are available in Table 2B. These notional amounts are the minimum sizes required to definitively affect the mid-price.
- 3.9. In the absence of a counter interest 0.1bp away, all mid-market trading interests received in market size or greater will result in a move of the mid-price by 0.1bp. This will be applicable to products listed on the screen 2Y and above.
- 3.10. In the absence of any trading interests, the £ OBS Desk will aim to maintain the previous smoothness of the forward curves and mid-prices will continue to update based on the levels of short sterling futures, gilt futures and cash bonds.
- 3.11. If the underlying market has moved, the £ OBS Desk may refresh the mid-price, involving a re-calculation of the level based on all appropriate market factors.

- 3.12. It is recognised that the mathematical midpoint of a price cannot always be achieved due to the incremental moves of the screen. In such instances, the mid-price will be set to the nearest 0.1bp.
- 3.13. The same order of priority exists, outright, then 10y future yield and curve trading interests equal, asset spreads and then butterflies. For example, a butterfly can be through mid to satisfy the reflection of spread trading interests.
- 3.14. These principles and market sizes applies to both SONIA and LIBOR IRS. As of 27th October 2020, if SONIA IRS and LIBOR IRS prices cannot be maintained because of prices on the basis curves, the SONIA IRS will take precedence. The primary curve will be SONIA IRS with LIBOR IRS priced by reference to SONIA IRS, adjusted by the 6v3 and s/l basis.
- 3.15. If after five working days liquidity is not consistently over 50% in favour of SONIA IRS, ICAP reserves the right to switch the primary pricing curve back to LIBOR IRS.
- 3.16. In the period leading up to the 27th October the FCA and the Bank of England intend to engage with market participants to determine whether market conditions allow the switch to proceed smoothly on 27th October. If the outcome of this engagement is that conditions are not right, ICAP reserve the right to delay the start date of this policy document change. ICAP will communicate that as soon as possible after the Bank of England or FCA make the results of the engagement public.

Tables

Table 2A - Market Sizes, Outright Swaps (Increments 1/10's)

Outright Trading Interests	Minimum
1y	200m
2y	100m
3y	75m
4y	50m
5y	50m
6y-7y	40m
8y-10y	25m
11y-20y	20m
21y-30y	15m
>30y	10m
Curve/Spread Trading Interests	
1y Gap	100m
2y/3y Gap	50m
4y-9y Gap	25m
10y Gap up to 30y	20m (eg 10x20 or 20x30)
11y + Gap	Longer leg minimum size of outright (eg 10/30's = 15mio)
30/40's	15m
40/50's	15m
30/50's	15m
Butterflies Trading Interests	
<i>(If gaps are uneven use the widest gap for reference)</i>	
1y Gap	100mio body
2y Gap	100mio body (10x12x15 100mio)
2y/5y/10y's	75mio body
5y/7y/10y's	100mio body
5y/10/30y's	50mio body
10y/15y/30y's	40mio body
5y Gap	50mio body (eg 10y/15y/20y's = 50mio body) 3 and 4y Gap also 50
10y Gap	40mio body (eg 10y/20y/30y's and 30/40/50 = 40mio)

Table 2B - Market Sizes, All GBP Basis Swaps (Increments 1/10's, CCP 1/20's)

Outright Trading Interests	Minimum
1y	250m
2y	150m
3y-4y-5y	100m
6y-7y-8y	75m
9y-10y	50m
11y-12y	50m
>12y	25m
Curve spread Trading Interests	
1y gap	200m
2y and 3y gap	100m
4y-9y gap	50m
10y gap	25m
11y+ gap	25m
Butterflies Trading Interests	
<i>(If gaps are uneven use the widest gap for reference)</i>	
1y gap	200m
2y gap	100m
2y/5y/10y	100m
5y/7y/10y	100m
5y gap	100m
10y gap	50m

All Basis swaps as above including base rate, CCP etc

Sonia and MPC, Short Swaps out to 2yrs and FRAs: (Increments 1/10's)

	Minimum
1 Month and Mpc's	£2bn
3 Month	£1bn
6 Month	£300m
9 Month	£250m
1 Year	£200m
2 Year	£100m
3 Month Sonia/Fra Spreads	£1bn

Table 2C - Reference Pages:

ICAP PAGE	REUTERS	BLOOMBERG
Interest Rate Swaps	ICAP 2	ICAB 57
Single Currency Basis	ICAPGBPBASIS	ICAB 77
Sonia Base Rate Basis	SONIABASE	ICAB 83
Short Sonia Base and Short Base Rate Swaps	ICAPSHORTBASE	ICAB 84
Base Rate Swaps		ICAB 85
Base Rate Swaps 1y - 30y	ICAPBASERATESWAP	ICAB 86
Base Rate vs Libor	ICAPBASE	ICAB 80
Sonia	ICAPSONIA	ICAB 64
Sonia Libor Basis	ICAPSONIA2	ICAB 65
LCH/CME Basis	ICAPCCPBASIS2	GPGX 379 88
GBP vs 6s CCP Basis	ICAPCCPBASIS6	GDCO 35000 1 / GPGX 237 24 1

4. Appendix 3 - ICAP CHF IRS

Principles Used When Setting and Updating Indicative Screens

- 4.1. In the absence of firm orders or prices, the Swiss OBS desk reserves the right to update its screens in order to maintain the shape and smoothness of its curves using amongst other (but not limited to) instruments, internal financial models, Forward FX rates, relevant market bond pricing, relevant underlying futures markets and any and all instruments and markets that are deemed to have some effect on such prices. These will be updated at the Swiss OBS desk discretion on a pragmatic and rational basis.
- 4.2. Any trade which is greater than or equal to the Block Size that is traded in one notional block amount as a bilateral negotiation, will affect the published pages and will be reported to market participants unless requested not to by both parties to the trade.
- 4.3. The chronological manner of orders given to us will be taken into consideration when updating the screen, as will the priority given to the nature of orders. The priority of the nature of orders will be reflected on screen as follows; “outright” swap price takes precedence over a “spread price” which takes precedence over a “butterfly” price. If one is contradictory to the other, this sequence will be applied
- 4.4. To ensure that all screen prices reflect a standard market order size for a broad range of market participants, the Swiss OBS Desk will seek to only use orders and trades both with market size equal to or above minimum sizes (please refer to Table 1C) and eligible to all market participants for the purposes of updating the screen.
- 4.5. Only orders that are equal to, or above, minimum sizes (see Table 1C) and that remain in the market for a reasonable period of time are used to reflect mid. If an order is received and then pulled within a timeframe deemed too short to be considered reasonable, the desk reserves the right to put the screen back to the midpoint prior to the order being received.
- 4.6. Only orders at or through the existing mid point, and that remain in the market for a reasonable period of time are used to reflect mid in the minimum increment, as set out in Table 3B. E.g.
 - 4.6.1. Order at mid with no counter: mid will move in the minimum increment
 - 4.6.2. Order at mid with a counter in a minimum increment worse than mid: mid will remain at existing mid
 - 4.6.3. Order at mid with a counter more than a minimum increment worse than mid: mid will move in the minimum increment
- 4.7. When the Swiss OBS desk receives a price (whether bid or offer), it will update the screens as soon as is reasonably practical to do so. .
- 4.8. It is recognised that when prices are very tight, the mathematical midpoint of a price cannot always be achieved due to minimum increments of screen movement. Therefore, where the midpoint of a Tables

Table 3A - Market Sizes

Outright IRS	
1yr	150m
2yr	100m
3yr	75m
4yr	50m
5yr	50m
6yr	40m
7yr	35m
8yr	30m
9yr	30m

10yr	25m
11yr	20m
12yr	20m
15y	15m
20y	12m
25yr	10m
30yr	8m

For all Basis, Double the amount of the IRS outright applies.

Spreads in Rates, amount of the longer maturity

	1y	2y	3y	4y	5y	6y	7y	8y	9y	10y	11y	12y	15y	20y	25y	30y	
150m																	
100m			75m	75m	50m	40m	35m	30m	30m	25m	25m	20m	15m	12m	10m	1y	
		125m	100m	75m	60m	50m	50m	40m	40m	35m	35m	25m	20m	15m	12m	2y	
			125m	75m	75m	50m	40m	40m	40m	35m	35m	25m	20m	15m	12m	3y	
				100m	75m	75m	50m	40m	40m	35m	35m	25m	20m	15m	12m	4y	
					100m	75m	50m	50m	40m	35m	35m	25m	20m	15m	12m	5y	
						75m	50m	50m	40m	35m	35m	25m	20m	15m	12m	6y	
							75m	50m	50m	40m	35m	25m	20m	15m	12m	7y	
								75m	50m	50m	40m	35m	25m	20m	15m	12m	8y
									75m	50m	40m	35m	25m	20m	15m	15m	9y
										60m	50m	35m	25m	20m	15m	10y	
											50m	35m	25m	20m	15m	11y	
												35m	25m	20m	15m	12y	
													35m	25m	20m	15y	
														25m	20m	20y	
															20m	25y	

For all Basis, Double the amount of the IRS spread applies.

TOIS	
1m	1billion
2m	750m
3m	500m
6m	250m
9m	175m
12m	125m
18m	75m
24m	50m
FRAs	
3m gaps	500m
6m gaps	250m

Table 3B - Minimum Increments

Outright IRS	
	0.0025
Outright Basis, Spreads and Butterflies	
	0.25

Table 3C - Block Sizes

Outright IRS	
1y	500m
2y	300m
3y	250m
4y	150m
5y	150m
6y	125m
7y	100m
8y	100m
9y	100m
10y	75m
3x6s Basis	
1y	1000m
2y	600m
3y	500m
4y	300m
5y	300m
6y	250m
7y	200m
8y	200m
9y	200m
10y	150m