

Tullet Prebon Benchmarks Family Methodology / Screen Protocol

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Version 1.1

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Change History

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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
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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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Gareth Parker	Moorgate Benchmarks	London
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1. Preamble

- 1.1. To ensure that benchmarks determined by Tullet Prebon Europe Ltd (“TP”), 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 UK and EU Benchmarks Regulations.

2. List of benchmarks

Benchmark	Tenors						Page	Calculator
EUR Annual Swap Rate – SwapMarker15	1yr	2yr	3yr	4yr	5yr	6yr	SMKR15	Tullett Prebon Europe Ltd
	7yr	8yr	9yr	10yr	12yr	15y		
	20yr	25yr	30yr	40yr	50yr			
GBP Semi-Annual Swap Rate – SwapMarker26	1yr	2yr	3yr	4yr	5yr	6yr	SMKR26	Tullett Prebon Europe Ltd
	7yr	8yr	9yr	10yr	12yr	15y		
	20yr	25yr	30yr	40yr	50yr			

3. Defining the “Economic Reality”

- 3.1. TP 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.
- 3.2. Each TP 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 TP 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 TP 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 TP.
- 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 Annual Swap Rate - SwapMarker15	The annual swap rate for euro swap transactions with a maturity of the Designated Maturity, derived from data provided to the TP Euro IRS desk.
GBP Semi-Annual Swap Rate - SwapMarker26	The semi-annual swap rate for Sterling swap transactions with a maturity of the Designated Maturity, expressed as a percentage, which appears on the SwapMarker Screen SMKR26 Page, derived from data provided to the TP GBP IRS desk.

¹The 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.

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 BMR.
- 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 Tullet Prebon Europe Ltd, under the oversight of Moorgate Benchmarks Limited and the Moorgate Benchmarks Oversight Function.

Tullet Prebon Europe Limited

- 4.4. The benchmarks are owned, licenced, calculated and distributed by Tullet Prebon Europe Ltd.
- 4.5. TP is responsible for the collection of input data and validation of this data in line with the TP 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 TP 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 BMRs.
- 4.8. Certain aspects of the oversight of the benchmarks are delegated to the TP 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 TP 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 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.
- 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.

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)

- 4.29. 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 TP Terms of Business and that have been fully onboarded by TP can agree transactions or show bids/offers to TP 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
19	EUR Annual Swap Rate - SwapMarker15	Primary sources: Voice Broking Secondary sources: EUR futures (ICE and EUREX) ICAP i-Swap	Tullett Prebon Europe Ltd
20	GBP Semi-Annual Swap Rate - SwapMarker26	Primary sources: Voice Broking Secondary sources: Market movements in gilts futures and gilt bonds. Political and economic events	Tullett Prebon Europe Ltd

Determination of the benchmarks throughout trading hours

- 5.12. Throughout the day, as input data is received, TP'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 outright, 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 TP 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 TP ICAP operates its screens with the utmost integrity and independence. TP ICAP brokers are required to assert sound judgement in all that they do. In order to maintain integrity and independence, TP 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 TP's trading desks, which are attached as this document's appendices, referenced as per the table below.

	Benchmark	Page	Calculator	Specific criteria
1	EUR Annual Swap Rate - SwapMarker15	SMKR15	Tullett Prebon Europe Ltd	Appendix 1 -TP EUR IRS
2	GBP Semi-Annual Swap Rate - SwapMarker26	SMKR26	Tullett Prebon Europe Ltd	Appendix 2 -TP GBP IRS

6. Calculation Times

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

Benchmark	Open time (London)	Close time (London)
EUR Annual Swap Rate - SwapMarker15	07:00	17:00
GBP Semi-Annual Swap Rate - SwapMarker26	07:30	18:00

7. Periodic Review

- 7.1. The TP benchmarks and the efficacy of the methodology are kept under continual review by the TP 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 TP 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 TP, 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 Tullet Prebon Europe Limited. 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 Tullet Prebon Europe Limited.

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 Tullet Prebon Europe Limited 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 TP ICAP plc.
- 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 TP ICAP broking desks, and in particular, seeks to guide stakeholders as to the protocols and polices used for screen & mid movements.
- 1.2. The following desks are involved in the determination of the various TP ICAP benchmarks:

Desk list	Short name	Broking Services	Desk contact
Tullett Prebon Euro Interest Rate Swaps Desk	TP EUR IRS desk	Euro interest rate swaps (IRS), Single currency Euro/Euro Basis Swaps (Basis), Forward Rates Agreements (FRAs), Overnight Index Swaps (OIS) and CCP Basis	Lee Page LPage@tullettprebon.com
Tullett Prebon GBP Interest Rate Swaps Desk	TP GBP IRS desk	GBP swaps outright, curve spreads, butterflies, FRA, SONIA, gilt future spreads and Convexity products (FRA vs. future spread)	Nick Brown nbrown@tullettprebon.com Darren Brooks DBrooks@tullettprebon.com Jonathan Lock JLock@tullettprebon.com

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

2. TP EUR IRS

Screen Principles

- 2.1. Wherever practicable, the TP EUR IRS desk will use actual transactions and trading interests (in market size) to imply a mid-price for each instrument. The Euro IRS desk will exercise its judgement in determining an indicative market mid-point in a consistent manner, taking into account all the Principles listed below.
- 2.2. The market sizes, denominated in notional amounts, and which are taken into account when moving/updating the screens, are detailed in Section 3. The desk will use its best endeavours to match up any notional sizes (from the smallest to the largest).
- 2.3. The TP EUR IRS 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 market sizes. The TP EUR desk will continue to trade in smaller than market sizes, but reserves the right to not reflect these trading interests in respect of screen mid-price reflection
- 2.4. If a trading interest is retracted, the screen will go back to prior reflected mid.
- 2.5. 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.
- 2.6. The TP EUR 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 ('gadgets'), then curve spreads and finally butterflies.
- 2.7. In the absence of trading interests, the TP mids will continue to update, based on live levels of the appropriate ICE and Eurex futures trading in order to maintain the smoothness of the previous forward curve.
- 2.8. 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.
- 2.9. In the absence of counter interests, the last active trading interest will be reflected on the screen, in accordance with this protocol market size.
- 2.10. Tullett Prebon has a regulatory obligation to maintain and support orderly markets. Any behaviour that could be interpreted as manipulative or disruptive will be flagged to our internal Compliance teams for investigation
- 2.11. 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 for IRS and .05bps for single-currency basis Eonia/Euribor, 6x3, 3x1. The same order of priority exists, outrights, then gadgets, then curve spreads and finally butterflies. For example, a butterfly can be through mid to satisfy the reflection of spread trading interests.

Matrix of Notional trade/trading interest sizes

- 2.12. See table 1A. The columns refer to sizes.
 - 2.12.1. **No impact on mid** - (e.g. a trading interest of 8m 10yr will have no impact on mid);
 - 2.12.2. **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);

- 2.12.3. **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, Tullett Prebon will advise change of the Euro margin (currently 1/10th bp) via email providing one week's notice;
- 2.12.4. **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.

IRS spread amounts for mid reflection plus a margin

- 2.13. Shown in table 1B below.
- 2.14. The exceptions/additions to the above are:
- 2.14.1. All spreads of 1yr gap or less = minimum of 200m longer leg.
 - 2.14.2. All spreads of 2yr gap = 100m longer leg
 - 2.14.3. 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

- 2.15. 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).
- 2.16. 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 outrights, outrights with Futures crosses & curve spreads in that order of priority.
- 2.17. 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

- 2.18. 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 Table 1D. Tullett Prebon 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

2.19. 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

2.20. If the Tullett Prebon 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.

2.21. Changes to these Principles will be notified to the market at the discretion of Tullett Prebon Europe Limited.

EU BMR

2.22. The Tullett Prebon EUR Interest Rates Swaps screens are intended to be used for indicative pricing and not for the ongoing valuation/benchmarking of derivative contracts or other financial instruments. Such usage is out of scope of the EU BMR.

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 - 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. TP GBP IRS

Screen Principles

- 3.1. Wherever practicable, the TP GBP IRS desk will use actual transactions and trading interests (in market size) to imply a mid-price for each instrument. The TP GBP IRS desk will exercise its judgement in determining an indicative market mid-point in a consistent manner, taking into account all the Principles listed below.
- 3.2. The market sizes, denominated in notional amounts, are detailed in Section 3.
- 3.3. The TP GBP IRS desk will prioritise updates to the screen mid prices on trading interests received and trades executed by its market participants that are equal to the market sizes detailed in Section 3.
- 3.4. The TP GBP IRS desk will continue to trade in sizes smaller than market sizes and monitor market trades in less than market size but reserves the right not to reflect these trading interests in respect of screen mid-price reflection.
- 3.5. Any trading interests that are restricted or qualified in such a way that they are valid for a limited list of market participants may not be considered when assessing the screen mid-price.
- 3.6. The TP GBP IRS desk may take into consideration the chronological order of trading interests received and the nature of the trading interest, with the order of priority being outright, then curve spreads and finally butterflies.
- 3.7. In the absence of trading interests, the TP GBP IRS desk will continue to update the screen mid prices, having reference to the following information sources:
 - 3.7.1. Market movements in gilts futures and gilt bonds.
 - 3.7.2. Political and economic events
- 3.8. 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.
- 3.9. If after five working days liquidity is not consistently over 50% in favour of SONIA IRS, TP reserves the right to switch the primary pricing curve back to LIBOR IRS.
- 3.10. 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, TP reserve the right to delay the start date of this policy document change. TP will communicate that as soon as possible after the Bank of England or FCA make the results of the engagement public.

Market Sizes

All market sizes are expressed in £ notional terms.

Short-term swaps, Sonia, MPC:	
1m and MPC	2bn
2m - 5m	1bn (including 3m FRA/SONIA)
6m	300m
9m	250m
1y	200m
18m	150m
2y	100m
Medium-term swaps (Outrights and basis)	
2y	100m
3y	75m
4y+	50m
10y	25m
11y - 20y	20m
21y - 30y	15m
31y+	10m
Butterflies	
1y and 2y gaps	100m
3y	75m
5y	50m
10y gap	25m
FRA	
3m	1bn
6m	500m

Reference Pages

Page description	REUTERS	BLOOMBERG
SONIA and IRS	TPSONIA	SMKR 20 to 29