

ICAP Sterling IRS SONIA Benchmark Methodology

Effective Date 4th June 2025

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Control Sheet

| Version | Approved by | Date | Summary of changes |
|---------|-------------|--------------|---------------------|
| 1.0 | PS CMF | 01 June 2025 | Initial Methodology |

1 Introduction

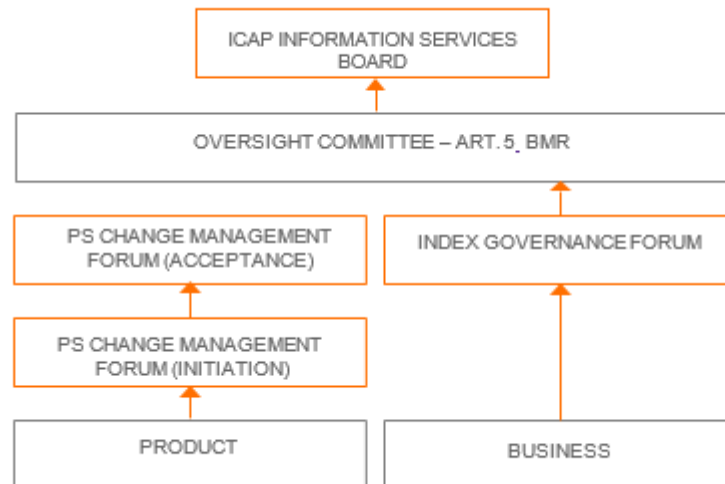
1.1 Overview

- 1.1.1 ICAP Information Services Limited trading as Parameta Solutions (“Parameta Solutions”) develops, calculates and publishes indices and Benchmarks.
- 1.1.2 Parameta Solutions considers certain of these indices to fall within the definition of a “Benchmark” as defined under Regulation ((EU) 2016/1011) (EU BMR) or the UK version of Regulation (EU) 2016/1011 as onshored via the European Union (Withdrawal) Act 2018 (the “UK Benchmarks Regulation”) in each case together with the relevant technical standards (together the “Benchmark Regulation”).
- 1.1.3 This document sets out the methodology as required under Article 12 of Regulation (EU) 2016/1011 for the below mentioned Benchmark.
- 1.1.4 Parameta Solutions is the administrator of such Benchmarks (as defined in Article 3(1)(6) of the Benchmark Regulation) and is regulated by both the UK Financial Conduct Authority (“FCA”) and European Securities and Markets Authority (“ESMA”).
- 1.1.5 This methodology is split into three parts 1) The governance section which is an overall framework for all Benchmarks; 2) The specific details relating to the particulars for a Benchmark and 3) Disclosures and disclaimers.
- 1.1.6 The Benchmark is calculated and published intra-day by TP ICAP Broking Limited (“Index Calculation Agent”). The Index Calculation Agent is responsible for compiling and calculating the Benchmark pursuant to and on the basis of this methodology.
- 1.1.7 Benchmark data is published via various data vendors under licence from Parameta Solutions. Each vendor determines whether they will distribute/display the Benchmark data via their respective information systems.
- 1.1.8 The Benchmark is made available via Bloomberg and Refinitiv.
- 1.1.9 For further information regarding the Benchmark including licensing and distribution, please contact findoutmore@parametasolutions.com

2 Part One -Governance

2.1 Overview

- 2.1.1 Parameta Solutions has in place a "Three Lines of Defence" model, enabling close cross- monitoring of the governance process - this being business, compliance/risk and audit who all have a key role in ensuring that Parameta Solutions meets its regulatory requirements where it has either (a) indices capable of being a Benchmark under the relevant Benchmark Regulation or (b) a Benchmark as defined under the relevant Benchmark Regulation. The over-arching governance is complimented by the Oversight Committee. The Oversight Committee can escalate to the Parameta Solutions Board if required.



2.2 Oversight Committee ("OC")

- 2.2.1 The OC is appointed by the Parameta Solutions to review the integrity of the Benchmark, in accordance with the OC Terms of Reference.
- 2.2.2 Parameta Solutions is responsible for appointing the chairperson and secretary of the OC.
- 2.2.3 The OC provides independent oversight of, and challenge to Parameta Solutions on all aspects of the Benchmark determination process. Its responsibilities include:
- 2.2.4 Reviewing the Benchmark definition and methodology at least annually.
- 2.2.5 Determining and keeping under review the Terms of Reference for the OC
- 2.2.6 Reviewing and approving the agenda and minutes of the OC.
- 2.2.7 Considering internal or external audits commissioned by the OC and monitoring the implementation of any identified remedial actions.
- 2.2.8 Overseeing any changes to this methodology and being able to request Parameta Solutions to consult on such changes.
- 2.2.9 Reviewing and approving procedures for cessation of the Benchmark, including any consultation about a cessation.
- 2.2.10 Overseeing any third party involved in the provision of the Benchmark, including calculation or dissemination agents.

2.3 Business Forums

- 2.3.1 The Parameta Solutions Change Management Forum ("PS CMF") is responsible for the approval to initiate new products and the approval of new products.
- 2.3.2 Index Governance Forum ("IGF") is responsible for (a) overseeing the provision of the Benchmark operationally and with respect to the methodologies; and (b) supporting the OC.

3 Errors

3.1 Errors or Omissions

- 3.1.1 Whilst the indices are governed by a set of rules that are set out in this methodology and are intended to be comprehensive, it is possible that errors, ambiguities or omissions to occur.
- 3.1.2 In such circumstances, Parameta Solutions shall:
- 3.1.3 Follow the process outlined in its Errors Policy.
- 3.1.4 Endeavour to resolve such ambiguity, error or omission using expert judgment and may, in consultation with the IGF, propose amendments to this methodology to reflect the resolution of such ambiguity, error or omission.
- 3.1.5 Assess the potential impact such change may have on stakeholders in accordance with its Cessation and Transition Policy. Any such decision to consult with stakeholders shall be considered by the IGF and OC.
- 3.1.6 Detail in the Benchmark Statement a summary of the specific procedures for dealing with errors in input data or in the determination of the Benchmark, including when a re-determination of the Benchmark is required. For example, with respect to the Sterling IRS SONIA Benchmark, if an error is made during the entry of a trade into TP ICAP systems (i.e. confusion between the identity of the buyer/seller, price or size), this will be addressed by carrying out trades that negate the effect of the error.

4 Methodology

4.1 Overview

- 4.1.1 Parameta Solutions may at any time undertake a periodic (and in any event annual) review of the Benchmark in circumstances where, for example, the Benchmark is no longer representative of the economic reality or the relevant market. The IGF shall consider the findings following any such periodic review of a Benchmark or Benchmark family (as the case may be). In the event a change to a Benchmark is needed, this shall be handled in accordance with the Cessation and Transition Policy.
- 4.1.2 Each Benchmark is subject to an initial approval and periodic review. Approval of this methodology is determined by the Benchmark Design Policy and the PS CMF Terms of Reference (for new methodologies) and the Cessation & Transition Policy and IGF (for reviews). Each Terms of Reference set out the process for nominating and removing persons involved in reviewing and approving the methodology guides.
- 4.1.3 In the event material changes are needed to this methodology, Parameta Solutions will assess the potential impact of such changes on stakeholders and (if it believes necessary) consult with stakeholders as set out below. The OC may direct Parameta Solutions to consult on changes to this methodology with stakeholders or the wider market. The IGF will then approve any material amendments to this methodology before publication. Following approval, Parameta Solutions shall notify stakeholders of its determination to amend any methodology. Such notification shall where reasonable detail the proposed changes in the control sheet of this methodology.
- 4.1.4 In the event Parameta Solutions has determined a possible cessation of an Benchmark is necessary, it shall prepare documentation to the IGF and OC which will include but is not limited to:
 - a) Why cessation is deemed appropriate;
 - b) If a consultation is required; and
 - c) If there is a suitable alternative identified by Parameta Solutions.
- 4.1.5 Parameta Solutions shall notify Stakeholders of any cessation or transition via its website.

5 Consultation Process

5.1 Where Parameta Solutions determines a consultation is needed:

- 5.1.1 The IGF and the OC will approve the contents of the consultation and the set of users and other stakeholders to which it should be distributed. The consultation will include as a minimum the key elements of the methodology Parameta Solutions believe will be affected by the proposed material change. The consultation will be available on the Parameta Solutions website.
- 5.1.2 Consultations will usually run for no less than 4 weeks, however, Parameta Solutions reserves the right to determine the most appropriate consultation period (including a shorter window for feedback) taking into consideration factors such as the complexity of the matters within the consultation.
- 5.1.3 Once the consultation period has closed, the results of the consultation and recommendations from the analysis are presented to the IGF and the OC.
- 5.1.4 The final approval of a cessation, transition or methodology change is made by the OC. Following approval, Parameta Solutions shall notify stakeholders of its determination to terminate or amend this methodology. Such notification shall detail (where reasonable) the proposed changes.

6 Market Disruption

6.1 Unavailability of Benchmark

- 6.1.1 Potential illiquidity, market disruption, unavailability of a pricing source may impact the ability to publish a Benchmark and delay and/or suspension or discontinuance of a Benchmark may result. In the case of extraordinary events or periods of market disruption, information about the event and the impact on the indices will where reasonably practicable and proportionate be posted on the Parameta Solutions website and disseminated through client channels.

7 Complaints

7.1 Complaints Policy

- 7.1.1 Parameta Solutions has a publicly available Complaints Policy. All complaints are investigated by a person not directly involved with the Benchmark calculation and dissemination.
- 7.1.2 Information related to complaints will be stored in a restricted access area and kept for a period of up to 5 (five) years following the date when the complaint was first lodged. Complaints can be submitted at benchmarkqueries@parametasolutions.com

8 Part two – Overview of the Benchmark

8.1 Methodology Overview

- 8.1.1 This section provides an overview of the methodology for the ICAP Sterling IRS SONIA Benchmark set out in section 9 below.
- 8.1.2 The Benchmark provides mid-prices for the Swaps in which TP ICAP's Global Broking business provides broking services, derived from market data and the trades and expressions of interest it receives. These mid-prices are created to facilitate ICAP's 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.
- 8.1.3 The mid-prices are anchored in bids, offers and trades received by the relevant ICAP Sterling IRS desk using expert discretion where necessary, according to the governance principles outlined within this methodology and other policies and procedures followed by Parameta Solutions.
- 8.1.4 The ICAP Sterling IRS SONIA Benchmark's underlying economic reality is an indication of the implied mid-price for the specific underlying swap, as listed and defined below, derived from data available to the ICAP Sterling IRS desk. The Benchmark is therefore indicative and do not necessarily represent the level at which any trade has or could be executed in the future.

8.1.5 The Benchmark is calculated to three decimal places.

| Benchmark | Economic Reality |
|-----------------------------------|--|
| ICAP Sterling IRS SONIA Benchmark | <i>The Swap rate for Sterling transactions derived from data provided to the ICAP Sterling IRS desk.</i> |

9 Benchmark

| Benchmark | Tenor | | | | | | Specific Criteria | REFINITIV | BLOOMBERG |
|---------------|-------|-----|-----|-----|-----|-----|-------------------|------------|-----------|
| ICAP Sterling | 2y | 3y | 4y | 5y | 6y | 7y | Appendix 1 | ICAPSONIA3 | ICAB 54 |
| IRS SONIA | 8y | 9y | 10y | 12y | 15y | 20y | | | |
| Benchmark | 25y | 30y | 40y | 50y | 60y | | | | |

10 Input Data

10.1 Input Data Overview

- 10.1.1 The Benchmark primarily uses input data that is either trades or trading interests received meeting minimum market sizes, denominated in notional amounts. Minimum market sizes are detailed in the table within Appendix 1.
- 10.1.2 Secondary sources include relevant trade data from futures or other regulated data exchanges with mandatory post trade transparency.
- 10.1.3 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 (e.g. in relation to certain non-primary clearing members).
- 10.1.4 Only clients that have agreed to be bound by TP ICAP Terms of Business and that have been fully onboarded can agree interests and trading interests or show bids/offers to staff of the Index Calculation Agent.
- 10.1.5 The Index Calculation Agent shall notify Parameta Solutions of any issues with the input data which will then be investigated.
- 10.1.6 No part of the Benchmark is determined using contributions of input data.
- 10.1.7 The Benchmark is subject to a number of tolerance checks with the intent of determining that the Benchmark is reflective of the underlying market at a given time.
- 10.1.8 Input data used in the determination of the Benchmark as detailed below.

| Benchmark | Input Data |
|-----------------------------------|---|
| ICAP Sterling IRS SONIA Benchmark | <u>Primary source:</u> Voice Broking ¹ <u>Secondary Sources:</u> ICE 3month SONIA Index futures ("STIR Futures") Gilt Future |

¹ This includes TP ICAP's Fusion Platform

- 10.1.9 The priority of the input data for the Benchmark is given to interests received and the nature of the trading interest with the order of priority being outrights, then outrights with future crosses and/or versus cash Gilts²("Future Yield")³and/or curve spreads and finally butterflies. If one trading interest is contradictory to another then this sequence will be applied.

11 Benchmark Calculation & Determinations

11.1 Calculations Overview

- 11.1.1 The Index Calculation Agent will perform all calculations, determinations and adjustments in relation to the Benchmark ("Calculations"). Neither the Index Calculation Agent or Parameta Solutions will have any responsibility for errors made in good faith or omissions in Calculations or other actions provided in this methodology.
- 11.1.2 It is not always possible for the Index Calculation Agent to be aware of (or independently validate) every order and every price in the market. However, Parameta Solutions undertakes quality assurance checks before the dissemination of any prices to the market. Neither Parameta Solutions or the Index Calculation Agent will publish or independently verify such data.
- 11.1.3 The calculation times are set out in the table below⁴ :

| Benchmark | Open (London) | Close (London) |
|-------------------------------------|---------------|----------------|
| ICAP Sterling IRS – SONIA Benchmark | 08:00 am | 17:15 pm |

- 11.1.4 The Index Calculation Agent uses expert judgment in accordance with the principles set out in Appendix 1 as follows:
- 11.1.4.1 The priority of the input data for the Benchmark is given to interests received and the nature of the trading interest with the order of priority being outrights, then outrights with future crosses and/or versus cash Gilts ("Future Yield") and/or curve spreads and finally butterflies. If one trading interest is contradictory to another then this sequence will be applied.
- 11.1.4.2 The Index Calculation Agent will update 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 as set out in Appendix 1. With respect to outrights, a Future Yield and curve spreads, 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.
- 11.1.4.3 Mid market butterfly trading interest will not move the screen if it is on mid. If it is through mid, we will reflect it to the middle. This does not apply to 2510s 5710s 101530s 51030s 102030s, which will reflect 0.1 from mid in the absence of a counter interest or a conflicting spread price. Only trading interests that remain in the market for a reasonable period of time⁵ are used to reflect the mid-price.
- 11.1.4.4 In the absence of any trading interests, the Index Calculation Agent will aim to maintain the previous smoothness of the forward curves and mid-prices will continue to update based on the levels of both STIR futures and Gilt Future.
- 11.1.4.5 To the extent that (i) a market event is not fully anticipated or addressed in this methodology or (ii) any necessary data input is unavailable or considered by the Index Calculation Agent to be unreliable for any reason, then (after applying any applicable fallback provision specified in this methodology) Expert Judgment may be used in determining the Benchmark. Any exercise of Expert Judgment in non-routine circumstances

² An outright with a cash Gilt will be the yield of a 30 year against a 30 year swap, often known as an asset swap spread.

³ A future yield is yield spread between the 10 year swap and the long Gilt Future (the latter rolls quarterly)

⁴ The Benchmark is calculated on all days except UK/ Chaps Holidays: <https://www.bankofengland.co.uk/payment-and-settlement/chaps>

⁵ This is deemed to be approximately 90 seconds

and which could have a material effect on the Benchmark shall be escalated to the IGF for review and approval in advance wherever possible.

12 Appendix 1 to Part 2 – Market Sizes

12.1 Outrights

12.1.1 Outright amounts are available below. These notional amounts are the minimum sizes required to impact the mid-price.

| Tenor (years) | Market Size (£ / million) |
|---------------|---------------------------|
| 2y | 100m |
| 3y | 75m |
| 4y | 50m |
| 5y | 50m |
| 6y | 40m |
| 7y | 40m |
| 8y | 25m |
| 9y | 25m |
| 10y | 25m |
| 11y-20y | 20m |
| 21y-30y | 15m |
| >30y | 10m |

12.2 Curve Spreads

12.2.1 Curve spread amounts are available below. These notional amounts are the minimum sizes required to impact the mid-price.

| Tenor (years) | Market Size (£ / million) |
|-------------------|--|
| 1y Gap | 150m |
| 2y Gap | 100m |
| 3y Gap | 75m |
| 4y-9y Gap | 25m |
| 5y Gap post 10y | 40m (e.g. 10y x 15y) |
| 10y Gap up to 30y | 25m (e.g. 10y x 20y or 20y x 30y) |
| 11y + Gap | 15m for all (e.g. 10y x 30y and 20y x 40y) |
| 30y/40y | 20m |
| 40y/50y | 20m |
| 30y/50y | 15m |

12.3 Butterflies

12.3.1 Butterflies are available below. These notional amounts are the minimum sizes required to impact the mid-price.

| Tenor (years) | Market Size (£ / million) |
|---------------|---------------------------|
| 1y Gap | 250m body |
| 2y Gap | 150m body |
| 2y/5y/10y's | 100m body |
| 5y/7y/10y's | 125m body |
| 10y/12y/15y's | 125m body |
| 5y/10y/30y | 60m body |
| 10y/15y/30y's | 50m body |

| | |
|-------------|---|
| 5y Gap | 75m body (e.g. 10y/15y/20y's = 75m body) |
| 3y & 4y Gap | 100m body |
| 10y Gap | 50m body (e.g. 10y/20y/30y's and 30y/40y/50y = 50m) |

12.4 Screen Protocols

- 12.4.1 In the absence of trading interests, the ICAP Sterling IRS desk will continue to update, based on live levels of Futures and Gilts trading in order to maintain the smoothness of the previous forward curves.
- 12.4.2 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.
- 12.4.3 ICAP has a regulatory obligation to maintain and support orderly markets. Any voice behaviour that could be interpreted as manipulative or disruptive will be flagged for investigation.

13 Part 3 - ESG Disclosures

13.1 Explanation of How ESG Factors are reflected in the methodology

| | |
|---|-----------------------------------|
| ITEM 1. Name of the Benchmark administrator. | ICAP Information Services Limited |
| ITEM 2. Type of Benchmark or family of Benchmarks. <i>Choose the relevant underlying asset from the list provided in Annex II to Commission Delegated Regulation (EU)2020/1816.</i> | |
| ITEM 3. Name of the Benchmark or family of Benchmarks. | ICAP Sterling IRS SONIA Benchmark |
| ITEM 4. Does the Benchmark methodology for the Benchmark or family of Benchmarks take into account ESG factors? | No |

ITEM 5. Where the response to Item 4 is positive, please list below, for each family of Benchmarks, those ESG factors that are taken into account in the Benchmark methodology, taking into account the ESG factors listed in Annex II to Delegated Regulation (EU) 2020/1816. Please explain how those ESG factors are used for the selection, weighting or exclusion of underlying assets.

The ESG factors shall be disclosed at an aggregated weighted average value at the level of the family of Benchmarks.

| | |
|---|------------------------------------|
| (a) List of environmental factors considered: | Selection, weighting or exclusion: |
| (b) List of social factors considered: | Selection, weighting or exclusion: |
| (c) List of governance factors considered: | Selection, weighting or exclusion: |

ITEM 6. Where the response to Item 4 is positive, please list below, for each Benchmark, those ESG factors that are taken into account in the Benchmark methodology, taking into account the ESG factors listed in Annex II to Delegated Regulation (EU) 2020/1816, depending on the relevant underlying asset concerned.

Please explain how those ESG factors are used for the selection, weighting or exclusion of underlying assets.

The ESG factors shall not be disclosed for each constituent of the Benchmark but shall be disclosed at an aggregated weighted average value of the Benchmark.

Alternatively, all of this information may be provided in the form of a hyperlink to a website of the Benchmark administrator included in this explanation. The information on the website shall be easily available and accessible. Benchmark administrators shall ensure that information published on their website remains available for five years.

| | |
|---|------------------------------------|
| (a) List of environmental factors considered: | Selection, weighting or exclusion: |
| (b) List of social factors considered: | Selection, weighting or exclusion: |
| (c) List of governance factors considered: | Selection, weighting or exclusion: |
| Hyperlink to the information on ESG factors for each Benchmark: | |

| | |
|---|--|
| ITEM 7. Data and standards used | |
| (a) Data input <ul style="list-style-type: none"> i. <i>Describe whether the data reported, modelled or sourced internally or externally</i> ii. <i>Where the data are reported, modelled or sourced externally, please name third party data provider.</i> | |
| (b) Verification and quality of data. Describe how data are verified and how the quality of those data is ensured. | |
| (c) Reference standards <i>Describe the international standards used in the Benchmark methodology.</i> | |
| Date on which information has been last updated and reason for the update: | |

14 Appendix 2 - Disclaimer

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15 Appendix 3 - Contact Us

For further information please email: benchmarkqueries@parametasolutions.com

| | |
|-----------|--|
| EMEA: | +44 (0)207 200 7600 |
| Americas: | +1 877 639 7300 |
| APAC: | +65 6922 1129 |
| Sales: | findoutmore@parametasolutions.com |
| Support: | operations@parametasolutions.com |