



ICE Swap Rate® extension

October 2023

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Executive Summary

ICE Swap Rate® (ISR) is recognised as the principal global benchmark for swap rates and spreads for interest rate swaps, representing the mid-price for interest rate swaps (the fixed leg) and spreads for interest rate swaps (the applicable mid-price minus a corresponding specified government bond yield), at particular times of day in USD, GBP and EUR in tenors ranging from 1 year to 30 years.

ICE Benchmark Administration Limited (IBA) is the benchmark administrator for ISR and is authorised and regulated by the Financial Conduct Authority (FCA) for the regulated activity of administering a benchmark.

IBA is consulting on aspects of its intention to extend the current suite of ISR benchmarks to include:

- ISR SOFR Swap Spreads, being the applicable swap mid-price minus a corresponding specified government bond yield; and
- ISR based on the euro short-term rate, €STR, published since October 2019 by the European Central Bank (ECB).

A questionnaire is attached for completion. More general feedback by email or letter is also welcome. Please send your completed questionnaire to IBA@ice.com by 17.00 London time on Friday, December 01, 2023.

IBA will publish a feedback statement after the feedback period has closed.

About the ICE Swap Rate

Introduction

ICE Swap Rate® (ISR) is recognised as the principal global benchmark for swap rates and spreads for interest rate swaps, representing the mid-price for interest rate swaps (the fixed leg) and spreads for interest rate swaps (the applicable mid-price minus a corresponding specified government bond yield), at particular times of day in USD, GBP and EUR in tenors ranging from 1 year to 30 years.

ISR is used as the exercise value for cash-settled swaptions, for close-out payments on early terminations of interest rate swaps, for some floating rate bonds and for valuing portfolios of interest rate swaps.

ICE Benchmark Administration Limited (IBA) became the administrator of ISR in March 2015, and changed the methodology from a polled rate to one based on transaction quotes sourced from regulated, electronic trading venues. ISR was the first global benchmark to transition from a submission-based rate to IBA's patented methodology based on tradable quotes sourced from regulated electronic trading venues.

Methodology

The ISR methodology is based on finding the volume-weighted average mid-price (VWAMP) from theoretically filling a trade in Standard Market Size (SMS) on both the bid and offer side at the relevant time.

Movement interpolation was introduced into the ISR methodology in November 2017, where a tenor is interpolated from the day-to-day movement in adjacent tenors if certain conditions are fulfilled. The current Waterfall methodology was adopted in May 2020.

Each published ISR benchmark setting is currently calculated using eligible prices and volumes for specified interest rate derivative products, provided by trading venues in accordance with IBA's published Methodology.

The first level of the Waterfall (Level 1) uses eligible, executable prices and volumes provided by regulated, electronic, trading venues.

If these trading venues do not provide sufficient eligible input data to calculate a setting in accordance with Level 1 of the Methodology, then the second level of the Waterfall (Level 2) uses eligible dealer to client prices and volumes displayed electronically by trading venues.

If there is insufficient eligible input data to calculate a setting in accordance with Level 2 of the Methodology, then the third level of the Waterfall (Level 3) uses movement interpolation, where possible for applicable tenors, to calculate a setting.

Where it is not possible to calculate an ISR setting at Levels 1, 2 or 3 of the Waterfall, the ICE Swap Rate Insufficient Data Policy applies for that setting. This involves making a No Publication in respect of that ISR setting for that day.

IBA determines and publishes GBP SONIA Spread-Adjusted ISR settings in line with the methodology proposed by the Non-Linear Task Force of the Working Group on Sterling Risk-Free Reference Rates in its paper "Transition in Sterling Non-Linear Derivatives referencing GBP LIBOR ICE Swap Rate (ISR)".

IBA determines and publishes USD SOFR Spread-Adjusted ISR settings in line with the methodology proposed by the Alternative Reference Rates Committee in its white paper "Suggested Fallback Formula for the USD LIBOR ICE Swap Rate".

Tenors

ISR is currently published as follows:

Benchmark run	Tenor(s)
EUR EURIBOR RATES 1100	
EUR EURIBOR RATES 1200	One Year, Two Years, Three Years, Four Years, Five Years, Six Years, Seven Years, Eight Years,
GBP SONIA RATES 1100	Nine Years, Ten Years, Twelve Years, Fifteen Years, Twenty Years, Twenty-five Years, Thirty Years
GBP SONIA Spread-Adjusted	- Twenty Tears, Twenty-live Tears, Thirty Tears
USD SOFR RATES 1100	One Year, Two Years, Three Years, Four Years, Five Years, Six Years, Seven Years, Eight Years, Nine
USD SOFR Spread-Adjusted 1100	Years, Ten Years, Fifteen Years, Twenty Years, Thirty Years

Calculation steps

The calculation of each ISR rate involves the following steps:

Waterfall Level 1

- 1. IBA collects tradeable bid and offer prices and volumes available on the central limit order books of regulated, electronic trading venues in respect of a two-minute window before the relevant ISR Rate calculation (e.g. 10:58 to 11:00).
- 2. The two-minute window is divided into 24 blocks of five seconds each and a random snapshot time is selected for each of these five-second blocks (i.e. 24 snapshots).
- 3. A synthetic order book is created at each snapshot time by combining and ranking (by price) the eligible bids and offers from each trading venue. These prices (and the associated volumes) are used to calculate the volume weighted bid (VWB) and the volume weighted offer (VWO) of the prices that would result from filling a hypothetical trade of Standard Market Size (SMS) 2 on each side of the market. A volume weighted average mid-price (VWAMP) is then calculated from the VWB and the VWO.
- 4. Snapshots with insufficient tradable volume to fill the SMS, or that contain crossed or zero-spread bid and offer prices, are not included in the calculation. Remaining snapshots are ranked in order of their VWAMPs and the snapshots with a VWAMP above the 75th percentile or below the 25th percentile are also discarded.
- 5. If at least six snapshots remain, the VWAMPs from these snapshots are quality-weighted based on the difference between the VWB and the VWO and averaged, in order to determine the applicable ISR Rate.

Waterfall Level 2

- 6. If fewer than six snapshots remain after Level 1, IBA will use dealer to client bid and offer prices and volumes displayed electronically by trading venues in respect of the same two-minute window to calculate the applicable ISR Rate.
- 7. The two-minute window is again divided into 24 blocks of five seconds each and a random snapshot time is selected for each block.
- 8. Where a trading venue provides prices from dealers for multiple categories of clients within a snapshot, IBA will select the prices from a single client category per dealer, based on the tightest spread and largest volume for each client category within the snapshot.
- 9. The selected, eligible bids and offers from each dealer from each trading venue are combined and ranked (by price) to create a synthetic order book at each snapshot time and any crossed bid and offer volume within the orderbook is discarded. The remaining prices and associated volumes are used to calculate the VWB and the VWO of the prices that would result from filling a hypothetical trade of SMS in the same manner as for Level 1, with the VWAMP also calculated in the same way.
- 10. Illiquid snapshots are excluded in the same manner as for Level 1, and remaining snapshots are ranked in order of their VWAMPs and the snapshots with a VWAMP above the 75th percentile or below the 25th percentile are also discarded.
- 11. If at least six snapshots remain, the applicable ISR Rate is determined as the quality weighted average of the applicable VWAMPs in the same manner as for Level 1.

Waterfall Level 3

12. If fewer than six snapshots remain after Level 2, IBA will apply movement interpolation (linear interpolation of the daily rate movement between adjacent tenors) to calculate the applicable ISR Rate, provided that such ISR Rate: a) was calculated at Level 1 or Level 2 of the Waterfall (i.e. was not interpolated) on the previous publication day; and b) has adjacent tenors that are one year shorter and one year longer than the tenor of such ISR Rate (thus movement interpolation can only apply to a limited number of ISR Rate tenors), each of which was not interpolated on both the previous and the current publication day.

Data collection windows and publication times

The data collection windows and publication times in the applicable time zone are shown below:

Benchmark run	Time zone	Data collection	Publication
EUR EURIBOR RATES 1100	Frankfurt	10.58 - 11.00	11.15
EUR EURIBOR RATES 1200	Frankfurt	11.58 - 12.00	12.15
GBP SONIA RATES 1100	London	10.58 - 11.00	11.15
GBP SONIA Spread-Adjusted	London	10.58 - 11.00	11.15

USD SOFR RATES 1100	New York	10.58 - 11.00	11.15
USD SOFR Spread-Adjusted 1100	New York	10.58 - 11.00	11.15

UK Benchmarks Regulation (BMR)

ISR is a Significant benchmark in terms of the UK Benchmarks Regulation (BMR).

The general requirements in Title II of the BMR and associated technical standards apply to ISR. These include requirements in respect of a benchmark's input data and methodology; governance and management of conflict of interest requirements; benchmark oversight; maintenance of Control and Accountability Frameworks; record-keeping; and reporting of infringements.

Oversight Committee

The ICE Swap Rate and Term Reference Rates Oversight Committee is comprised of an independent Chairperson and market representatives. The Oversight Committee monitors IBA's administration of the benchmark. The composition and terms of reference of the Committee are published <a href="https://example.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchmark.com/here/benchma

Further Information

Further information about ISR, including how to access the benchmark rates, can be found here.

Consultation Questions

IBA is seeking feedback on aspects of the implementation of its intention to extend the suite of ICE Swap Rate (ISR) publications.

Please use the attached questionnaire to respond to the following questions:

ISR SOFR Swap Spreads

- Q1 What should be the publication time or times for ISR SOFR Swap Spreads? (e.g. 11.15 in New York)
- Q2 What tenors would be appropriate for ISR SOFR Swap Spreads? (e.g. same as current ISR SOFR tenors or a subset)
- Q3 Should the day counts and interest rate basis for the underlying interest rate swaps for ISR SOFR Swap Spreads be the same as for the current ISR SOFR runs? Yes/No
- Q4 If your answer is No to Q3, what would you propose?
- Q5 Please suggest when IBA should introduce ISR SOFR Swap Spreads (e.g. Earliest introduction: as soon as possible around the end of Q1 2024; Latest introduction: Q3 2024)
- Q6 Please explain the rationale for your answer to Q5
- Q7 Do you have any additional comments about the proposed introduction of ISR SOFR Swap Spreads? Yes/No
- Q8 If your answer is Yes to Q7, please add your additional comments

ISR based on €STR

- Q9 What should be the publication time or times for ISR based on €STR? (e.g. 11.15 and/or 12.15 in Frankfurt)
- Q10 What tenors would be appropriate for ISR based on €STR? (e.g. same as current EUR ISR tenors)
- Q11 Should the day counts and interest rate basis for the underlying interest rate swaps for ISR based on €STR be the same as for the current EUR ISR runs? Yes/No
- Q12 If your answer is No to Q11, what would you propose?
- Q13 Please suggest when IBA should introduce ISR based on €STR (e.g. Earliest introduction: as soon as possible around the end of Q1 2024; Latest introduction: Q3 2024)
- Q14 Please explain the rationale for your answer to Q13
- Q15 Do you have any additional comments about the proposed introduction of ISR based on €STR? Yes/No
- Q16 If your answer is Yes to Q15, please add your additional comments

General

Q17 Do you have any additional comments about ISR generally? Yes/No

Q18 If your answer is Yes to Q17, please add your additional comments

Please provide your feedback to IBA at IBA@ice.com by 17.00 London time on Friday, December 01, 2023.

After the feedback period has closed, IBA will publish a feedback statement summarizing responses and any determinations resulting from the consultation.

IBA will publish completed questionnaires where agreement to such publication is provided by the respondent in the questionnaire. Where this is not provided, IBA will not publish the response but may still include the comments (without attribution) in its published feedback statement, and in published aggregated response totals.

Disclaimers and Information

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IBA is a benchmark administrator, authorised and regulated by the Financial Conduct Authority. At the end of the transition period in relation to the withdrawal of the UK from the EU, which ended at 11:00 pm on December 31, 2020, IBA ceased to be authorised as a benchmark administrator under the EU Benchmarks Regulation and is now authorised as a benchmark administrator under the UK Benchmarks Regulation, as may be amended from time.

IBA is not a manufacturer or distributor of any investment or product, whether based on its benchmark or other information or otherwise, for purposes of Directive 2014/65/EU and Regulation (EU) No 600/2014 (MiFID II) or Regulation (EU) No 1286/2014 (PRIIPs) (as such legislation has been on-shored into UK legislation).

IBA does not provide legal, tax or investment advice or recommendations regarding securities and no publication of benchmark and other information should be taken as constituting financial or investment advice or a recommendation of securities, an invitation or inducement to engage in any investment activity, including any securities transaction, or a financial promotion.

As a result, IBA is not responsible for carrying out any target market assessment or supplying any key information document in relation to its benchmark or other information or otherwise. IBA is not responsible for and makes no representation regarding the appropriateness or suitability of using or investing in any financial instrument or entering into any contract linked to, IBA's benchmark or other information, and any decision to engage in such use or to invest in any such instrument or to enter into any such contract should not be made in reliance on IBA's benchmark or other information. You should consult relevant disclosures by your counterparties or seek advice from professional advisors in relation

to any intended use of, or investing in any financial instrument or entering into any contract linked to, IBA's benchmark or other information.

Any of: (i) the basis or methodology for calculation or determination, (ii) the input data used for calculation or determination, (iii) the underlying market or economic reality represented or measured, (iii) the name, or (iv) the administrator, in respect of any benchmark or other information may change, including, without limitation, pursuant to applicable law, an order of a regulatory or other competent authority or procedures undertaken in accordance with applicable laws, which may result in short-term or long-term changes to such benchmark or other information or to their characteristics Benchmark or other information may be expanded (for example to cover more currencies or tenors), reduced, changed, discontinued or terminated at any time, including, without limitation, pursuant to applicable law, an order of a regulatory or other competent authority or procedures undertaken in accordance with applicable law, or because of factors beyond IBA's control. Benchmark or other information may cease to be representative of the economic reality or underlying market that they are intended to measure or represent, but that may not be grounds for IBA invoking a contingency procedure and IBA may be required, pursuant to applicable laws or an order of a regulatory or other competent authority, to make changes and/or continue to publish the affected benchmark or other information. Use of a benchmark or other information may also be prohibited or restricted under applicable laws and regulation.

Users of IBA's benchmark or other information should produce and maintain robust written fallback provisions and plans setting out the actions that would be taken in the event of material changes to or cessation of the relevant benchmark or other information. These should include, where feasible and appropriate, specifying alternative benchmarks that could be referenced as a substitute with reasons as to why they are suitable alternatives. Various factors, including those beyond IBA's control, might necessitate material changes to or cessation of a benchmark or other information. Please ensure that any financial instrument or contract that you invest in or are a party to linked to IBA's benchmark or other information contains such provisions and plans, and that you consider the potential impact on any relevant financial instrument or contract of a material change or cessation of the relevant benchmark or other information.

To the fullest extent permitted by applicable law, none of IBA, ICE or any Data Provider, or any of its or their affiliates will be liable in contract or tort (including negligence), for breach of statutory duty or nuisance or under antitrust laws, for misrepresentation or otherwise, in respect of any inaccuracies, errors, omissions, delays, failures, cessations or changes (material or otherwise) in IBA's benchmark and other information, or for any damage, expense or other loss (whether direct or indirect) you may suffer arising out of or in connection with IBA's benchmark and other information or any reliance you may place upon it. All implied terms, conditions and warranties, including without limitation as to quality, merchantability, fitness for purpose, title or non-infringement, in relation to IBA's benchmark and other information are hereby excluded to the fullest extent permitted by applicable law.

General

Intercontinental Exchange, Inc. (NYSE: ICE) is a Fortune 500 company that designs, builds and operates digital networks to connect people to opportunity. We provide financial technology and data services across major asset classes that offer our customers access to mission-critical workflow tools that increase transparency and operational efficiencies. We operate exchange, including the New York Stock Exchange, and clearing houses that help people invest, raise capital and manage risk across multiple asset classes. Our comprehensive fixed income data services and execution capabilities provide information, analytics and platforms that help our customers capitalize on opportunities and operate more efficiently.

Safe Harbor Statement under the Private Securities Litigation Reform Act of 1995 -- Statements in this document regarding ICE's business that are not historical facts are "forward-looking statements" that involve risks and uncertainties. For a discussion of additional risks and uncertainties, which could cause actual results to differ from those contained in the forward-looking statements, see ICE's Securities and Exchange Commission (SEC) filings, including, but not limited to, the risk factors in ICE's Annual Report on Form 10-K for the year ended December 31, 2022, as filed with the SEC on February 2, 2023.



Questionnaire ICE Swap Rate® Suite Extension

ICE Benchmark Administration (IBA) is seeking feedback on its intention to launch include ICE Swap Rate (ISR) SOFR Swap Spreads and ISR based on €STR. Respondents are requested to provide feedback to IBA at IBA@ice.com by 17.00 London time on **Friday, December 01, 2023**.

This questionnaire requests specific feedback from market participants but more general feedback by email or letter is also welcome.

Contact Information

Name	
Position	
Organisation (if any)	
Telephone/Email (if you agree to IBA contacting you with any queries regarding your responses)	

Questions

Q1	What should be the publication time or times for ISR SOFR Swap Spreads? (e.g. 11.15 in New York)
A1	
Q2	What tenors would be appropriate for ISR SOFR Swap Spreads? (e.g. same as current ISR SOFR tenors or a subset)
A2	
Q3	Should the day counts and interest rate basis for the underlying interest rate swaps for ISR SOFR Swap Spreads be the same as for the current ISR SOFR runs?
А3	Yes/No

Q4	If your answer is No to Q3, what would you propose?
A4	
Q5	Please suggest when IBA should introduce ISR SOFR Swap Spreads (e.g. Earliest
	introduction: as soon as possible around the end of Q1 2024; Latest introduction: Q3 2024)
A5	Earliest introduction:
	Latest introduction:
Q6	Please explain the rationale for your answer to Q5
A6	
Q7	Do you have any additional comments about the proposed introduction of ISR SOFR Swap Spreads?
A 7	
A7	Yes/No
Q8	If your answer is Yes to Q7, please add your additional comments
A8	
Q9	What should be the publication time or times for ISR based on €STR? (e.g. 11.15 and/or 12.15 in Frankfurt)
A9	
Q10	What tenors would be appropriate for ISR based on €STR? (e.g. same as current EUR ISR
	tenors)
A10	
Q11	Should the day counts and interest rate basis for the underlying interest rate swaps for ISR based on €STR be the same as for the current EUR ISR runs?
A11	Yes/No
Q12	If your answer is No to Q11, what would you propose?
A12	
<u> </u>	

Q13	(3		
	as soon as possible around the end of Q1 2024; Latest introduction: Q3 2024)		
A42	Faulisat introduction.		
A13	Earliest introduction:		
	Latest introduction:		
	Latest introduction.		
Q14	Please explain the rationale for your answer to Q13		
	,		
A14			
045			
Q15	Do you have any additional comments about the proposed introduction of ISR ba	isea on	
	€STR?		
A15	Yes/No		
AIS	1 65/110		
Q16	If your answer is Yes to Q15, please add your additional comments		
A16			
Q17	De you have any additional comments about ICD generally?		
QII	Do you have any additional comments about ISR generally?		
A17	Yes/No		
1			
Q18	If your answer is Yes to Q17, please add your additional comments		
A18			
Do yo	ou agree to IBA contacting you with any queries regarding your responses?	Yes/No	
Do yo	Do you agree to your completed questionnaire being published by IBA? Yes/No		

Additional pages

Please attach additional pages if required.

Publication of this completed questionnaire and the feedback statement

IBA will publish completed questionnaires where agreement to such publication is provided by the respondent. Where this is not provided, IBA will not publish the response but may still include the comments (without attribution) in its published feedback statement, and in published aggregated response totals.

Sending your response

Please email your completed questionnaire to IBA@ice.com

Or post it to: ICE Benchmark Administration Limited, Milton Gate, 60 Chiswell Street. London EC1Y 4SA to arrive by 17.00 London time on Friday, December 01, 2023.