



# ICE Swap Rate Consultation on Input Data

December 2019



# Contents

<b>Executive summary</b>	<b>3</b>
<b>About ICE Swap Rate</b>	<b>4</b>
<b>Expanding the data used in ICE Swap Rate</b>	<b>6</b>
<b>Data sourcing</b>	<b>9</b>
<b>Disclaimers</b>	<b>10</b>
<b>Consultation questionnaire</b>	<b>11</b>



## Executive summary

ICE Swap Rate (ISR) is recognised as the principal global benchmark for swap rates and spreads for EUR, GBP and USD interest rate swaps. It represents the mid-price for interest rate swaps (the fixed leg), at particular times of the day in tenors ranging from 1 year to 30 years. The floating leg is [EURIBOR®](#) for EUR and [ICE LIBOR](#) (LIBOR) for USD and GBP.

In August 2019, ICE Benchmark Administration Limited (IBA) published a [Feedback Request paper](#) posing two key questions:

- 1) Should IBA expand the data set to help increase the publication numbers, particularly in light of recent USD No Publications; and
- 2) Should IBA publish a GBP SONIA rate based upon growing volumes in SONIA Swaps.

IBA published a [Feedback Statement](#) in November 2019 summarising the feedback responses and outlining the next steps. The great majority of respondents were in favour of expanding the data set underlying ISR, and supported IBA constructing and publishing GBP rates based on SONIA alongside the existing LIBOR-based benchmark.

IBA is now exploring ways to include non-Central Limit Order Book (non-CLOB) data in the ISR calculation and to produce ISR rates with SONIA. IBA expects to publish a consultation in the first quarter of 2020 on developing SONIA ISR rates.

In this consultation, IBA seeks comments on specific aspects of the inclusion of non-CLOB data in the calculation.

A questionnaire is attached for completion. More general feedback by email or letter is also welcome.

Respondents are requested to provide feedback to IBA at [IBA@theice.com](mailto:IBA@theice.com) by **5pm London time on Monday February 03, 2020**.

After the feedback period has closed, IBA will publish a feedback statement summarising responses. IBA will also publish the comments received unless confidentiality has been requested by the originator of the comments.

Regulated trading venues are invited to contact IBA if they have plain vanilla Interest Rate Swap data from CLOBs, Dealer to Client (D2C) data or any other type of quotes (e.g. Request For Quote (RFQ) type protocols) for possible use in the calculation of ISR. Contact details are included on page 9.



## About ICE Swap Rate

### Introduction and Background

ICE Swap Rate (ISR) is recognised as the principal global benchmark for swap rates and spreads for interest rate swaps. It represents the mid-price for interest rate swaps and spreads (the fixed leg), at particular times of the day in three major currencies (EUR, GBP and USD) and in tenors ranging from 1 year to 30 years. The floating leg is 3M ICE LIBOR (LIBOR) for USD, 3M and 6M LIBOR for GBP, and 3M and 6M EURIBOR® for EUR.

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.

It was the first global benchmark to transition from a submission-based rate, when ICE Benchmark Administration (IBA) changed the methodology in 2015 from panel banks' inputs to a new patented methodology based on tradable quotes sourced from regulated electronic trading venues. Such venues are Multilateral Trading Facilities (MTFs) and Swap Execution Facilities (SEFs).

### ISR Methodology

The 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.

The steps to produce ISR are that:

1. IBA receives data from multiple complete central limit order books (CLOBs), comprising tradable bids and offers, from regulated trading platforms during a pre-defined calculation window. The regulated trading platforms are BGC Partners' BGC Trader, Tradition's Trad-X and ICAP's i-Swap.
2. IBA takes a set number of 'snapshots' from this data at randomised intervals to make the benchmark robust against momentary aberrations in the market.
3. The data is combined for each snapshot into a synthetic order book that represents the best prices and accompanying volumes available in the market at that time.
4. IBA calculates the volume weighted prices at which a trade in SMS could be filled from this synthetic order book on both the bid and offer side. These prices are used to calculate the VWAMP.
5. IBA performs a number of checks on the input data to exclude illiquid and outlier snapshots together with snapshots with crossed and zero bid-offer spread order books:

#### Illiquid snapshots

Illiquid snapshots are not included in the calculation. To ensure this, any snapshots that do not fill the SMS on both the bid and offer side are discarded, so that only VWAMPs from reasonably-sized trades are included in the calculation.

#### Crossed order books

Crossed order books, in which the bid price is higher than the offer price, could exist momentarily but would not be truly representative of the market during the data collection window. Snapshots with crossed order books are therefore discarded.

#### Zero spread order books

Similarly, an order book may have a best bid and best offer which are equal to each other. The calculation excludes these snapshots.



### Minimum number of snapshots

IBA also sets a minimum number of liquid snapshots which must be available in order to perform the calculation.

6. Outlier checks are made to protect against momentary and unrepresentative spikes in price. The snapshots that passed the previous checks are ranked in order of their VWAMPs. The snapshots higher than the 75th percentile and lower than the 25th percentile are discarded, leaving only the most representative snapshots.
7. IBA combines the remaining VWAMPs into a final price using a quality weighting. Snapshots with tighter spreads between the Volume Weighted Bid and Offer are indicative of a better quality market so are given a higher weighting.

In November 2017, IBA introduced movement interpolation. When there are not enough liquid snapshots to calculate the rate for a tenor, the day-on-day move in adjacent tenors and the previous day's rate for the tenor are used to interpolate a rate, provided that the following conditions are met:

- The adjacent tenors are spaced one year either side of the missing ('target') tenor;
- Neither adjacent tenor is itself interpolated; and
- The previous day's publications of the target tenor and the adjacent tenors were not interpolated.

If the above conditions for applying movement interpolation are not met, IBA publishes a 'No Publication' for that tenor. All tenors with sufficient volume are published in the normal way.

### **Regulation of IBA and ISR**

IBA is authorised and regulated by the Financial Conduct Authority (FCA) for the regulated activity of administering a benchmark, and is authorised as a benchmark administrator under the [EU Benchmarks Regulation](#) (BMR).

The general requirements in Title II of the BMR 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.

The [regulatory technical standards](#) for the procedures and characteristics of the oversight function of certain benchmarks also apply to ISR.

The ICE Swap Rate Oversight Committee is comprised of an independent Chairperson and market representatives. The Oversight Committee is responsible for monitoring the administration of the benchmark. The composition and terms of reference of the Committee are published [here](#).

### **Further Information**

Further information about ISR, including how to access the benchmark rates, can be found [here](#).



## Expanding the data used in ICE Swap Rate

### Introduction

Following the feedback from market participants on whether to include data from alternative sources when firm quotes are not available from MTFs or SEFs on inter-dealer Central Limit Order Books (CLOBs), IBA is now seeking to source non-CLOB data from dealer platforms operated by SEFs, MTFs, OTFs; and/or pricing from, for example, Dealer to Client (D2C) and Request For Quote (RFQ) mechanisms.

### Methodology Change rather than Fall-back Rate

Under the current ISDA definitions, ISR must be used for the settlement of related contracts if a rate is published. However, if a rate is not available from IBA, a rate provided by 'reference banks' is used as the contractual fall-back in the ISDA definitions for EUR and USD ISR and a rate determined by the calculation agent is used at the contractual fall-back for GBP ISR.

In the Feedback Request, IBA outlined two approaches for IBA to include non-CLOB data in the calculation of ISR:

- Including the non-CLOB data as an integral part of the methodology, in which case firms would have to use such rate for the settlement of related contracts before using any relevant contractual fall-backs; or
- Publishing ISR rates using non-CLOB data as separate rates.

Almost all of the feedback responses were supportive of the additional data being integral to the methodology and this is the approach being adopted by IBA.

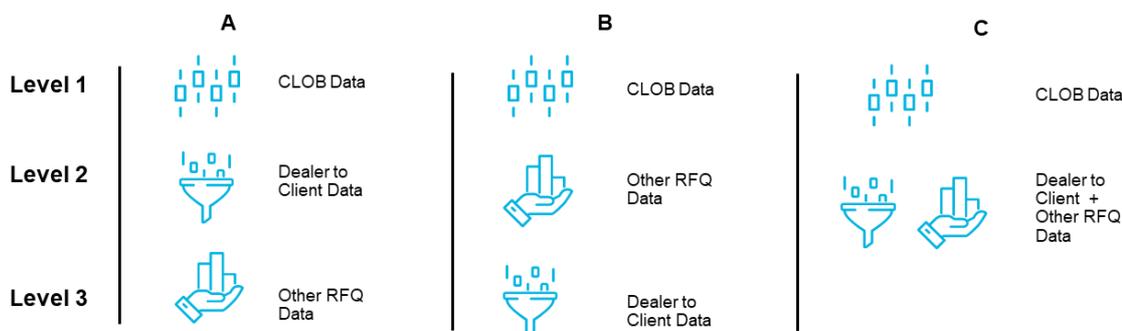
### Waterfall Approach

Market participants expressed support for a 'waterfall' approach under which the existing methodology and calculation would be used whenever the underlying market liquidity was sufficient. In times of low liquidity, the additional data sources would be incorporated on a tenor by tenor basis in order to reduce the number of No Publications.

Accordingly, the existing methodology and calculation will be used whenever the underlying market liquidity is sufficient.

For incorporating proposed additional data when CLOB data is insufficient, IBA could use Dealer to Client data from dealer platforms and, only if this were insufficient, use Other RFQ data as a supplement, or vice versa. A third approach would be to intermingle Dealer to Client data and the Other RFQ data.

The alternatives are therefore:





In the attached questionnaire, IBA seeks responses to the following questions:

Q1 *Which of the three approaches do you find preferable? A, B or C*

Q2 *Which approach would be your second preference? A, B or C*

Q3 *Please explain the rationale for your response to Qs 1 & 2.*

IBA would intend to source bids and offers for the same data collection window as is currently used for ISR, which is the final two minutes of the hour before benchmark publication. The questionnaire has the following questions on this:

Q4 *Do you agree that the existing data collection window should be used for the additional data?  
Yes/ No*

Q5 *If your answer is No to Q4, what data collection window would you prefer?*

Q6 *If your answer is No to Q4, please explain the rationale for your response to Q5.*

### **Movement Interpolation**

As stated above, the ISR methodology currently includes movement interpolation when there are not enough liquid snapshots to calculate the rate for a tenor. The day-on-day move in adjacent tenors and the previous day's rate for the tenor are used to interpolate a rate, provided that the necessary conditions are met (the adjacent tenors are spaced one year either side of the target tenor; neither adjacent tenor is itself interpolated; and the previous day's publications of the target tenor and the adjacent tenors were not interpolated).

With the proposed inclusion of additional data, IBA could use that additional data before seeking to use movement interpolation. Alternatively, IBA could use movement interpolation first.

IBA proposes the following waterfall steps:

1. Using CLOB data in accordance with the existing ISR methodology, without movement interpolation;
2. Using non-CLOB data if a tenor cannot be produced by means of step 1 above;
3. Using movement interpolation; and
4. If a rate still cannot be produced, making a No Publication for that tenor.

The relevant questions are:

Q7 *Do you agree with the above waterfall? Yes/No*

Q8 *Please explain the rationale for your response to Q7.*

### **General Feedback**

IBA also welcomes more general feedback on ISR:

Q9 *Do you have any additional comments about ISR? Yes/No*

Q10 *If your answer is Yes to Q9, please add your additional comments.*



**Publication of Completed Questionnaires**

IBA will publish completed questionnaire unless confidentiality is requested in response to Q11 (by circling No or deleting Yes).



## Data sourcing

For the additional data IBA is looking to include pricing data for plain vanilla interest rate swaps (IRS) from platforms that have Central Limit Order Books (CLOB), Dealer to Client (D2C) data or any other type of quotes (e.g. RFQ type protocols).

A summary of the data requirements is set out in the following table:

Benchmark Run	Times (Local time)	Frequency	Time zone	Currency	Tenors
USD Rates 1100	10:56 to 11:00	At least every second	Eastern	USD	1 to 10Y, 15Y, 20Y, and 30Y
USD Spreads 1100	10:56 to 11:00		Eastern	USD	2Y, 3Y, 5Y, 7Y and 10Y
USD Rates 1500	14:56 to 15:00		Eastern	USD	1Y
EUR Rates 1100	10:56 to 11:00		CET	EUR	1 to 10Y, 12Y, 15Y, 20Y, 25Y and 30Y
EUR Rates 1200	11:56 to 12:00		CET	EUR	
GBP Rates 1100	10:56 to 11:00		GMT	GBP	1 to 10Y, 12Y, 15Y, 20Y, 25Y and 30Y

The associated Day-Counts and interest rate bases are shown below:

Benchmark Run	Day-Count	Interest rate basis	Day-Count	Interest rate basis
		(m=month)		(m=month)
USD Rates 1100	Semi-annual 30/360	3m LIBOR	Semi-annual 30/360	3m LIBOR
USD Spreads 1100	N/A		30/360 Semi-annual bond	
USD Rates 1500	Semi-annual 30/360	3m LIBOR	Semi-annual 30/360	3m LIBOR
EUR Rates 1100	30/360	3m EURIBOR®	30/360	6m EURIBOR®
EUR Rates 1200				
GBP Rates 1100	Actual/365	3m LIBOR	Semi-annual actual / 365	6m LIBOR

In addition to data for use as part of the benchmark calculation, IBA will require historical data in order to conduct back-testing.

Regulated trading venues are invited to contact IBA's Chief Operating Officer if they have plain vanilla IRS data from CLOBs, D2C data or any other type of quotes (e.g. RFQ type protocols) for possible use in the calculation of ISR:

Stelios Tselikas, Chief Operating Officer:

[stylianos.tselikas@theice.com](mailto:stylianos.tselikas@theice.com)

Tel: +44 (0)20 7429 7104



## Disclaimers

IBA reserves all rights in the copyright in this document and on IBA's website. None of these rights may be used without a written license from IBA. Market participants and other stakeholders may make a reasonable number of copies of this document for the sole purpose of providing feedback to IBA.

The approach set out in this document is subject to change in response to feedback from market participants and other stakeholders and IBA's further development work.

None of IBA, Intercontinental Exchange, Inc. (ICE), or any of its or their affiliates accepts any responsibility or will be liable in contract or tort (including negligence), for breach of statutory duty or nuisance or under antitrust laws or otherwise for the information contained in this document or on IBA's website or any use that you may make of it. All implied terms, conditions and warranties and liabilities in relation to the information are hereby excluded to the fullest extent permitted by law. None of IBA, ICE or any of its or their affiliates excludes or limits liability for fraud or fraudulent misrepresentation or death or personal injury caused by negligence.

SONIA is published by the Bank of England and is used subject to its terms of use. The Bank of England has no liability for your use of this document or any data on IBA's website.

EURIBOR® is a registered trademark of the European Money Markets Institute (EMMI).

### General

IBA is authorised and regulated by the Financial Conduct Authority. ICE, LIBOR, ICE LIBOR, ICE Swap Rate and ICE Benchmark Administration are trademarks of ICE and/or its affiliates. All rights in these trademarks are reserved and none of these rights may be used without a written license from ICE and/or its affiliates, as applicable.

[Intercontinental Exchange](#) (NYSE: ICE) is a Fortune 500 company formed in the year 2000 to modernise markets. ICE serves customers by operating the [exchanges](#), [clearing houses](#) and information services they rely upon to invest, trade and manage risk across global financial and commodity markets. A leader in market data, [ICE Data Services](#) serves the information and connectivity needs across virtually all asset classes. As the parent company of the [New York Stock Exchange](#), the company is the premier venue for raising capital in the world, driving economic growth and transforming markets.

Trademarks of ICE and/or its affiliates include Intercontinental Exchange, ICE, ICE block design, NYSE and New York Stock Exchange. Information regarding additional trademarks and intellectual property rights of Intercontinental Exchange, Inc. and/or its affiliates is located at:

<http://www.intercontinentalexchange.com/terms-of-use>.

Key Information Documents for certain products covered by the EU Packaged Retail and Insurance-based Investment Products Regulation can be accessed on the relevant exchange website under the heading "Key Information Documents (KIDS)."

Safe Harbour Statement under the Private Securities Litigation Reform Act of 1995 -- Statements in this press release 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, 2018, as filed with the SEC on February 7, 2019.



## ICE Swap Rate consultation questionnaire

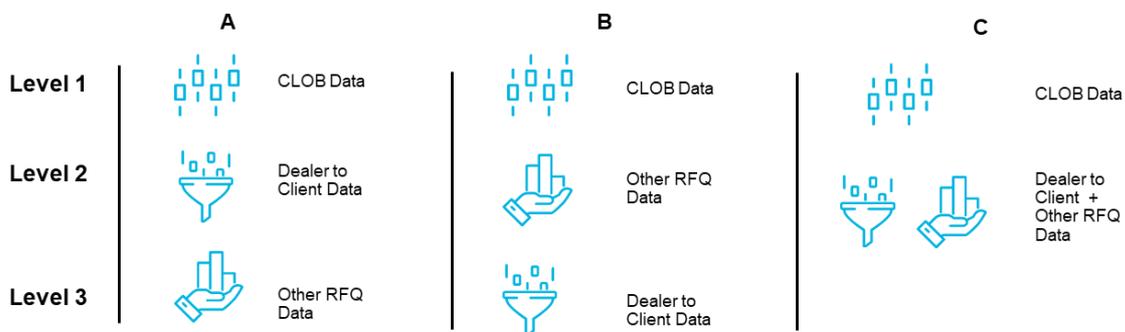
IBA seeks stakeholder feedback on the proposed expansion of data used in the ISR calculation. Respondents are requested to provide feedback to IBA at [IBA@theice.com](mailto:IBA@theice.com) by **5pm London time on Monday February 3, 2020**. Please attach additional pages if required for your responses.

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

### Contact Information

<b>Name</b>	
<b>Position</b>	
<b>Organisation (if any)</b>	
<b>Telephone</b>	
<b>Email</b>	

For Qs 1 & 2, the waterfall alternatives are:



For Qs 1 & 2 and Qs with Yes/No options, please circle your answer or delete the answer that does not apply.

<b>Q1</b>	<b>Which of the three approaches do you find preferable?</b>	<b>A, B or C</b>
<b>Q2</b>	<b>Which approach would be your second preference?</b>	<b>A, B or C</b>
<b>Q3</b>	<b>Please explain the rationale for your response to Qs 1 &amp; 2.</b>	



Q4	Do you agree that the existing data collection window should be used for the additional data?	Yes / No
Q5	If your answer is No to Q4, what data collection window would you prefer?	
Q6	If your answer is No to Q4, please explain the rationale for your response to Q5.	
Q7	Do you agree with the above waterfall?	Yes / No
Q8	Please explain the rationale for your response to Q7.	
Q9	Do you have any additional comments about ISR?	Yes / No
Q10	If your answer is Yes to Q9, please add your additional comments.	

**Publication of this completed questionnaire**

IBA will publish your completed questionnaire unless you circle No or delete Yes in the box below to request confidentiality.

Q11	Do you agree to this completed questionnaire being published by IBA?	Yes / No
-----	--	----------

Please email your completed questionnaire to [IBA@theice.com](mailto:IBA@theice.com) by 5pm London time on Monday February 03, 2020.

Or post it, to arrive by 5pm London time on Monday February 03, 2020, to:

ICE Benchmark Administration Limited  
Milton Gate  
60 Chiswell Street  
London EC1Y 4SA