FTSE Term SONIA

Methodology consultation



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1. Responding to this consultation

Introduction

FTSE Russell is committed to transparency when reviewing benchmark methodologies or considering material changes to its benchmarks. To that end, FTSE Russell is seeking feedback from users of FTSE Term SONIA on a proposed enhancement to the benchmark. FTSE Russell invites comments on all proposals put forward in this paper and in particular on the specific questions in section 6. Please structure your comments to:

- · Respond to the questions stated
- Contain a clear rationale that includes evidence to support the views expressed
- Describe any alternative choices that FTSE Russell should consider

Submission of responses

Please email your comments to <u>index_queries@lseg.com</u> with 'FTSE Term SONIA consultation' in the subject by no later than 17:00UK on 25th April 2025. Any feedback should include the name of the institution, as well as names, roles and divisions of respondents. Please note that comments submitted after this deadline or submitted via other means may not be processed.

Handling of responses

All responses to this consultation will be treated as confidential and will not be made public. A summary of anonymised feedback received, and decisions made may be made available in due course.

2. Introduction

Refinitiv benchmarks have been rebranded and are now part of FTSE Russell, a London Stock Exchange Group business. For further details about this change, please visit https://www.lseg.com/content/dam/lseg/en_us/documents/faq/benchmark-and-indices-rebrand-faqs.pdf.

FTSE Russell is a leading calculator and administrator of benchmarks and indices. FTSE Russell administers various interest rate benchmarks including but not limited to Saudi Arabian Interbank Offered Rate (SAIBOR), FTSE USD IBOR Cash Fallbacks (the ARRC's recommended fallback rates), Tokyo Swap Rate and FTSE Term €STR.

Following a prototype period, on 11 January 2021 <u>FTSE Russell commenced production</u> of the FTSE Term SONIA benchmark. This rate was designed to support those markets and market participants <u>identified by the Working Group on Sterling Risk-Free Reference</u> Rates, who were not well suited to using SONIA compounded in arrears.

The benchmark comprises four tenors: 1 month, 3 months, 6 months and 12 months and is published at 11:50 (London Time) on each business day. It is calculated using a waterfall methodology that is comprised of two levels: "Level 1", the primary source, and "Level 2", the secondary source that's used if there is insufficient Level 1 data. If neither Levels 1 nor 2 have sufficient data, the integrated fallback level is used to determine the published benchmark. Input data for the calculation of Level 1 is executable quotes for spot starting SONIA Overnight Index Swap ("OIS") contracts taken from dealer-to-dealer Multilateral Trading Facilities ("MTFs"). Input data for the calculation of Level 2 is a dealer-to-client trading platform. Input data for the integrated fallback level is compound overnight SONIA and historical FTSE Term SONIA values.

Since launch of the benchmark four years ago, it has become adopted by clients globally. FTSE Russell performs regular reviews of the benchmark methodology and following the most recent review FTSE Russell proposes to introduce a new waterfall level to reduce the likelihood of using the integrated fallback. The purpose of this consultation is to collect feedback from users of the benchmark on this proposed new "Level 3" to determine whether it is aligned with users' preferences and identify any opportunities to more closely aligned it with the needs of benchmark users.

3. Overview of the existing Term SONIA methodology and data availability

Executable quotes for spot starting SONIA OIS are sourced from the Central Limit Order Books ("CLOBs") of two dealer-to-dealer MTFs - TP ICAP iSwap and Tradition Trad-X. Quotes are sampled in 30 second intervals from 10:50 to 11:10 London time. For each pair of quotes, volume weighted bid and volume weighted offer rates are calculated using a standard notional and subject to a bid offer spread check. For those pairs of quotes that pass the spread check, a mid-rate is calculated as the average of the volume weighted bid and offer rates. The published FTSE Term SONIA benchmark is the median of the mid-rates.

If there are fewer than 36 valid mid-rates the benchmark is calculated using Level 2. Level 2 sources executable quotes from Tradeweb, a dealer-to-client trading platform and the data is sampled with the same frequency and time window as Level 1. Each bid-offer pair from a dealer is subject to a maximum spread check, and the volume of each bid and offer quote must be greater than or equal to a minimum notional amount. A mid-rate is calculated using each valid bid-offer pair. The FTSE Term SONIA benchmark is then determined as the median of the mid-rates.

If there are too few dealers and insufficient valid mid-rates, the benchmark is calculated using the integrated fallback. Under the integrated fallback level, the spread between the FTSE Term SONIA benchmark on the previous business day and overnight SONIA compounded to the previous business day is applied to SONIA compounded to the day of the benchmark determination.

The benchmark methodology is available at https://www.lseg.com/content/dam/ftse-russell/en_us/documents/methodology/term-sonia-methodology.pdf.

For the period 1 December 2023 to 29 November 2024, more than two thirds (67.5%) of the published rates were calculated using Level 1 and most of the rest (32.2%) were calculated using Level 2. There was a single day where three tenors were calculated using the integrated fallback. Furthermore, this is the only day that the integrated fallback has been used to determine the published benchmark since launch 4 years ago.

4. Proposed methodology enhancement

FTSE Russell is committed to maintaining and, where possible, enhancing the robustness, resilience and representativeness of FTSE Term SONIA with respect to the SONIA OIS mid-market rate. To that end, FTSE Russell proposes to add a new Level 3 to the methodology, which would be used to determine the published benchmark if there was insufficient data to calculate the benchmark using either Levels 1 or 2. This new Level 3 methodology would be similar in design to Level 2 of the Tokyo Swap Rate methodology, where indicative bid and offer quotes are combined with any individual dealer executable bid and offer quotes that may be available from Tradeweb (but where such executable bid and offer quotes from Tradeweb are not sufficient to achieve the threshold required for Level 2 of the methodology's waterfall).

FTSE Russell proposes to sample the most recent indicative SONIA OIS bid and offer quotes published during normal business hours on the four days prior to or on benchmark determination date, irrespective of whether the quote was published during or prior to the collection window. This is calculated as follows:

On the day of benchmark determination, FTSE Russell proposes to sample the most recent indicative SONIA OIS bid and offer quotes published by BGC Partners, Fenics, and Tradition, as well as Tradeweb composites every 30 seconds from 10:50 to 11:10 London time. For each pair of quotes, a mid is calculated as the average of the bid and offer. These indicative mids (for which there can be up to 40 of them per data provider) are then combined with any Level 2 executable mids from Tradeweb (if available) and the benchmark is calculated as the median of the combined mid rates.

During periods of benign market conditions SONIA OIS bid and offer rates, particularly in shorter tenors, may not change materially and its common for some data providers not to update their rates, since the previously published bids and offers remain representative of the current market rate. See Appendix A for details of data availability and Appendix B for details of data accuracy. Given this, if an individual data provider (i.e., BGC Partners, Fenics, Tradition, or Tradeweb) has not published updated bid and offer quotes on the day of benchmark determination, FTSE Russell will collect the most recent rate towards the end of a previous business day by sampling the data from that source every 30 seconds between 15:50-16:10 London time on a previous business day ("EOD Rate"). If there are no updated SONIA OIS bid and offer rates published by that data provider on the previous business

day, FTSE Russell will sample their EOD Rate published two business days prior to benchmark determination day. If no SONIA OIS rates were published by the provider two business days before benchmark determination, FTSE Russell will sample their EOD Rate three business days prior to benchmark determination. This look back process is extended by one business day at a time to a maximum of four business days prior to benchmark determination date.

In the event the there are fewer than 90 valid mids, Level 3 will not be used, and the published benchmark will be calculated using the integrated fallback.

5. Performance of the proposed new methodology

FTSE Russell has calculated the proposed new Level 3 using input data from BGC Partners, Fenics, Tradition and Tradeweb composites for the period 1 December 2023 to 29 November 2024. This historical calculation of Level 3 does not incorporate any quotes from Tradeweb's Dealer-to-Client platform used in Level 2 of the methodology as (1) the objective of the analysis is to assess whether the indicative data is sufficiently accurate and robust, and (2) there was only a single day where there was insufficient Level 2 data. Incorporating an abundance of Level 2 data into the Level 3 historical calculation would not be reflective of the true Level 3 performance. A comparison of the historical Level 3 data in Table 1 shows that it is closely aligned to the published benchmark. The average of the absolute value of the daily difference between the proposed Level 3 and the published Term SONIA benchmark is on average 0.1bps or less. Visual inspection of the charts in Appendix A shows that the proposed new Level 3 is almost indistinguishable from the published Term SONIA rate.

Table 1: Difference between proposed Level 3 and FTSE Term SONIA

Difference (Bps), 1 December 2023 to 29 November 2024

Tenor	Average of daily basis	Average of absolute daily basis
1M	-0.02	0.09
3M	0.00	0.07
6M	0.01	0.06
12M	0.01	0.10

6. Questions

- 1. Do you agree with the proposal to incorporate the new waterfall level in the methodology based on indicative quotes and composite rates?
- 2. Do you agree with the proposal to use the same collection window and sampling frequency as the existing levels one and two?
- 3. Do you agree that if a data provider doesn't update their bid and offer quotes on benchmark determination day then the latest rates should be sampled on 15:50 to 16:10 London time on the previous business day for which the data provider updated their quotes (subject to maximum look back period of 4 days)?
- 4. Do you agree that the look back period should be limited to a maximum of 4 days, so prices from more than a week ago can't be used in the calculation of the benchmark?
- 5. Do you agree that if there are fewer than 90 valid mids to use the integrated fallback?
- 6. Do you agree with combining any unused Level 2 Tradeweb executable mids with indicative / composite rates?

Appendix A: Data availability

Table 2: Days data provider didn't publish indicative bid and offer quotes prior to end of FTSE Term SONIA collection window for 1-month tenor

Number of days (#), 1 December 2023 to 29 November 2024

			Consecutive days	with no publication	
Data provider	Total	1-day	2-days	3-days	4 days
Data Provider 1	35	25	7	2	1
Data Provider 2	45	32	8	4	1
Data Provider 3	96	52	26	11	7
Data Provider 4	0	0	0	0	0

Note 1: Only includes business days that FTSE Term SONIA was published

Note 2: There were 253 business days in period analysed

Table 3: Days data provider didn't publish indicative bid and offer quotes prior to end of FTSE Term SONIA collection window for 3-month tenor

Number of days (#), 1 December 2023 to 29 November 2024

Data provider			Consecutive days with no publication			
	Total	1-day	2-days	3-days	4 days	
Data Provider 1	1	1	0	0	0	
Data Provider 2	1	1	0	0	0	
Data Provider 3	19	18	1	0	0	
Data Provider 4	0	0	0	0	0	

Note 1: Only includes business days that FTSE Term SONIA was published

Note 2: There were 253 business days in period analysed

Table 4: Days data provider didn't publish indicative bid and offer quotes prior to end of FTSE Term SONIA collection window for 6-month tenor

Number of days (#), 1 December 2023 to 29 November 2024

Data provider		Consecutive days with n			
	Total	1-day	2-days	3-days	4 days
Data Provider 1	1	1	0	0	0
Data Provider 2	0	0	0	0	0
Data Provider 3	0	0	0	0	0
Data Provider 4	0	0	0	0	0

Note 1: Only includes business days that FTSE Term SONIA was published

Note 2: There were 253 business days in period analysed

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Table 5: Days data provider didn't publish indicative bid and offer quotes prior to end of FTSE Term SONIA collection window for <u>12-month</u> tenor

Number of days (#), 1 December 2023 to 29 November 2024

Data provider	Consecutive days with no publication				
	Total	1-day	2-days	3-days	4 days
Data Provider 1	1	1	0	0	0
Data Provider 2	0	0	0	0	0
Data Provider 3	0	0	0	0	0
Data Provider 4	0	0	0	0	0

Note 1: Only includes business days that FTSE Term SONIA was published

Note 2: There were 253 business days in period analysed

Appendix B: Accuracy of bids and offers published prior to determination date

To determine whether bids and offers of 1-month and 3-month tenors remained representative of the SONIA OIS market on the day or days after publication, FTSE Russell compared the average of the absolute difference between (A) and (B) below.

- A. The difference between (i) the median of each data provider's snaps between 10:50-11:10 London time to (ii) the published FTSE Term SONIA benchmark on days when that data provider <u>published</u> indicative SONIA OIS rates on benchmark determination date
- B. The difference between (i) the median of each data provider's snaps between 15:50-16:10 London time on a day prior to the published FTSE Term SONIA benchmark to (ii) the published FTSE Term SONIA benchmark on days when that data provider didn't publish indicative SONIA OIS rates on benchmark determination date

Table 6: Average of the absolute difference between data provider's most recent sampled SONIA OIS mid and FTSE Term SONIA for 1M tenor

Percent (%), 1 December 2023 to 29 November 2024

		(B) Maximum number of consecutive days with no publication			publication
Data Provider	(A) 0-days	1-day	2-days	3-days	4-days
Data Provider 1	0.0009	0.0010	0.0010	0.0010	0.0009
Data Provider 2	0.0018	0.0009	0.0009	0.0009	0.0009
Data Provider 3	0.0017	0.0014	0.0015	0.0015	0.0015
Data Provider 4	0.0006	N/A	N/A	N/A	N/A

Note 1: Only includes business days that FTSE Term SONIA was published

Note 2: There were 253 business days in period analysed

Tables 2 and 6 above show that on the 157 business days that Data Provider 3 published SONIA OIS rates prior to the end of the Term SONIA collection window, the average absolute difference between the 11:00 Data Provider 3 SONIA OIS rate (calculated as the median of SONIA OIS mid rates sampled every 30 seconds between 10:50-11:10 London time) and FTSE Term SONIA was 0.0017% or 0.17bps. On the 52 business days that Data Provider 3 didn't publish SONIA OIS rates on benchmark determination date prior to the end of the Term SONIA collection window, but published rates the previous business day, the average absolute difference between the 16:00 Data Provider 3 SONIA OIS rate and FTSE Term SONIA was 0.0014% or 0.14bps.

Table 7: Average of the absolute difference between data providers most recent sampled SONIA OIS mid and FTSE Term SONIA for 3M tenor

Percent (%), 1 December 2023 to 29 November 2024

		(B) Maximum number of consecutive days with no publica		publication	
Data Provider	(A) 0-days	1-day	2-days	3-days	4-days
Data Provider 1	0.0007				
Data Provider 2	0.0006				
Data Provider 3	0.0017	0.0011	0.0011		
Data Provider 4	0.0004				

Note 1: Only includes business days that FTSE Term SONIA was published

Note 2: There were 253 business days in period analysed

Note 3: Data Provider 1 and Data Provider 2 not shown due to sample size of one (see Table 3)

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Tables equivalent to Tables 6 & 7 above are not shown for 6-month and 12-month tenors because on almost all days SONIA OIS rates were available on the day of determination from all four data providers prior to the FTSE Term SONIA window closing so there is no need to compare the accuracy of rates published on benchmark determination date with those published on prior days.

FTSE Russell concludes that the latest SONIA OIS rates published up to and including 4 business days prior to publication are sufficiently representative of the current SONIA OIS market.

Appendix C: Comparison of proposed Level 3 with published FTSE Term SONIA benchmark

Chart 1: Comparison of proposed Level 3 with FTSE Term SONIA for 1-month tenor

1-December 2023 to 29-November 2024 (%)



Note: Level 3 prototype is calculated using quotes from BGC Partners, Fenics, and Tradition, as well as Tradeweb composites. Term SONIA Level 2 data (quotes from the Tradeweb Dealer to Client trading platform) is not used in the calculation.

Chart 2: Comparison of proposed Level 3 with FTSE Term SONIA for 3-month tenor

1-December 2023 to 29-November 2024 (%)

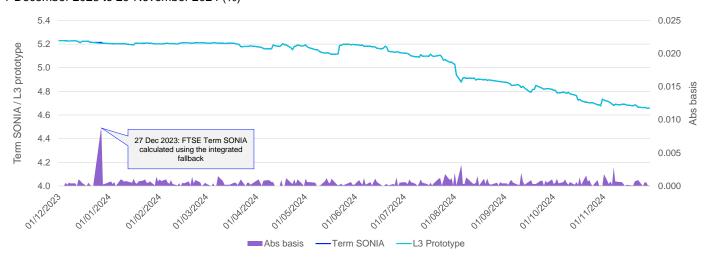


Chart 3: Comparison of proposed Level 3 with FTSE Term SONIA for 6-month tenor

1-December 2023 to 29-November 2024 (%)



Chart 4: Comparison of proposed Level 3 with FTSE Term SONIA for 12-month tenor

1-December 2023 to 29-November 2024 (%)



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