FTSE Term ZARONIA Prototype Methodology

The prototype is published for review and assessment purposes only.
The prototype methodology may be amended without notice.

The prototype is not a benchmark that is administered in compliance with the UK or EU benchmark regulations or the IOSCO Principles for Financial Benchmarks.

The prototype may not be used as a reference in any financial products.

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Section 1

Introduction

1. Introduction

1.1 Overview

1.1.1 The FTSE Term ZARONIA prototype (the "Prototype") is a forward-looking rate setting for nearly risk-free interest term rates for the South African rand (ZAR). Input data comprises fixed rates for Overnight Index Swaps ("OIS") with floating legs that reference overnight ZARONIA as published by the South African Reserve Bank ("SARB").

1.1.2 This document is the methodology ("Methodology") of the FTSE Term ZARONIA prototype. The Methodology was first introduced on 09 June 2026, and revised on 28 September 2026.

1.1.3 On 22 April 2026, the SARB announced that the Market Practitioners Group (MPG) had selected FTSE Russell to serve as the administrator of the forward looking term rate based on ZARONIA-linked derivatives[1]. The Prototype is one step towards the introduction of a Term ZARONIA benchmark.

1.2 Description of the Prototype

1.2.1 The Prototype comprises five forward-looking tenors: 1-month, 3-month, 6-month, 9-month and 12-month. The Prototype's waterfall Methodology includes two forward-looking levels which use ZARONIA OIS transactions and rates and a backward-looking integrated fallback to enable a rate to be published in a wide range of market conditions, when the forward looking levels are unavailable.

1.2.2 Input data for Level 1 of the waterfall are transactions cleared at LCH Ltd and committed (i.e. executable) quotes taken from a dealer-to-client trading platform (Tradeweb) for ZARONIA OIS contracts cleared at LCH Ltd. Input data for Level 2 is the same as Level 1 but supplemented with indicative or composite rates for spot starting ZARONIA OIS contracts (with input data supplied by Tradition, GFI Group, Latium Capital (a trading division of GFI Group), GMG and Tradeweb). Input data for the integrated fallback level are compounded overnight ZARONIA and historical FTSE Term ZARONIA Prototype values.

1.2.3 The Prototype is published at or around 10:30SAST[2] on every business day that banks are open for business in South Africa.

1.2.4 The published Prototype includes a history of settings dating from 2 February 2026.

[1] https://www.resbank.co.za/content/dam/sarb/publications/media-releases/2026/jibar-tax.pdf
[2] South Africa Standard Time

1.3 Use of the Prototype

1.3.1 The Prototype is published for review and assessment purposes only. The Prototype methodology may be amended without notice. It is not a benchmark that is administered in compliance with the UK or EU benchmark regulations or the IOSCO Principles for Financial Benchmarks.

1.3.2 **The Prototype may not be used as a reference in any financial products**.

Section 2

Input data

2. Input data

2.1 ZARONIA OIS Contracts

2.1.1 Input data for Level 1 and Level 2 of the Prototype waterfall methodology are the fixed interest rates in respect of (i) spot starting ZARONIA OIS contracts for the relevant tenors for the Prototype, and (ii) forward starting ZARONIA OIS contracts with effective dates on or after the effective date for the SARB's policy rate following a policy rate announcement by the SARB's Monetary Policy Committee (MPC) and termination dates on or before the effective date following the subsequent policy rate announcement.

2.1.2 The spot starting ZARONIA OIS contracts used as input data have effective dates that are the same as their quote or transaction dates ("T+0").

2.2 Level 1 input data

2.2.1 Input data for Level 1 are committed (i.e. executable) quotes for spot starting ZARONIA OIS contracts taken from a dealer-to-client trading platform (Tradeweb) together with OIS rates from centrally cleared spot and forward starting ZARONIA OIS transactions provided by LCH Ltd ("CCP").

2.2.2 Input data from the dealer-to-client trading platform comprises quotes from each dealer captured once every 30 minutes over a collection window from 09:00 to 18:00SAST on the business day prior to the Prototype publication date.

2.2.3 Input data from LCH Ltd includes transactions registered during a collection window from 09:00 to 18:00SAST on the business day prior to the Prototype publication date. The number of transactions between the same counterparty pair on the same day for OIS contracts with the same rate, effective date and termination date is capped.

2.2.4 For the 1-month tenor, input data from the dealer-to-client trading platform and OIS rates from spot starting OIS transactions are used for the Level 1 determination. For the 3-month, 6-month, 9-month and 12-month tenors, input data from (i) the dealer-to-client trading platform, (ii) OIS rates from spot starting OIS transactions, and (iii) OIS rates implied by (a) the 1-month Prototype setting and (b) OIS rates from forward starting OIS transactions are used for the Level 1 determination.

2.3 Level 2 input data

2.3.1 Input data for Level 2 comprises the input data for Level 1 together with indicative rates for spot starting ZARONIA OIS contracts (with input data supplied by Tradition, GFI Group, Latium Capital (a trading division of GFI Group), GMG and Tradeweb).

2.3.2 For the 1-month tenor, to the extent available, input data from (i) the dealer-to-client trading platform, (ii) OIS rates from spot starting OIS transactions, and (iii) the indicative rates for spot starting ZARONIA OIS contracts are used for the Level 2 determination. For the 3-month, 6-month, 9-month and 12-month tenors, to the extent available input data from (i) the dealer-to-client trading platform, (ii) OIS rates from spot starting OIS transactions, (iii) the indicative rates for spot starting ZARONIA OIS contracts, and (iv) OIS rates implied by (a) the 1-month Prototype setting and (b) OIS rates from forward starting OIS transactions are used for the Level 2 determination.

2.3.3 Indicative input data comprises rates captured every 30 minutes between 09:00 and 18:00SAST on the previous business day prior to Prototype publication. If any source of indicative data, other than Tradeweb, has not updated its indicative rates for a tenor or tenors such that at least one valid rate is captured for such tenor or tenors on the previous business day, rates for that source(s) and such tenor(s) are captured from the preceding business day i.e. two business days prior to the Prototype publication date.

2.4 Integrated fallback input data

2.4.1 Input data for the integrated fallback level are compounded overnight ZARONIA and historical FTSE Term ZARONIA Prototype values.

Section 3

Determination of the Prototype

3. Determination of the Prototype

3.1 Waterfall methodology

3.1.1 The FTSE Term ZARONIA Prototype is calculated using Level 1 of the Methodology subject to a threshold. If the threshold is not reached, the Prototype is calculated using Level 2 of the Methodology subject to a threshold. If the Level 2 threshold is not reached, the Prototype is calculated using integrated fallback level. The Level 1 and Level 2 thresholds have been calibrated to ensure a minimum quantity of eligible input data. Any use of the integrated fallback level is indicated when the resulting Prototype value is published.

3.1.2 The waterfall is applied individually to each tenor of the Prototype. Consequently, it is possible that different tenors are determined using different levels of the waterfall on the same day.

3.2 Implied rates from forward starting ZARONIA OIS contracts

3.2.1 For both Level 1 and Level 2 of the Prototype waterfall methodology, the 3-month, 6-month, 9-month and 12-month tenors use implied rates from transacted forward starting ZARONIA OIS contracts from the CCP subject to the availability of required data.

3.2.2 Transacted forward starting OIS contracts that satisfy a minimum notional size requirement are allocated to the periods between policy rate announcements by the SARB's MPC. A forward starting OIS contract is allocated to a specific period if its effective date is on or after the effective date for the SARB's policy rate following a policy rate announcement for that period (MPC Effective Date) and its termination date is on or before the effective date following the subsequent policy rate announcement.

3.2.3 As the policy rate is constant from and including one MPC Effective Date up to but excluding the subsequent MPC Effective date, the implied forward overnight ZARONIA rate during that period is assumed to be constant[3]. For each forward starting OIS contract that is successfully allocated to an MPC period of constant policy rates, the implied forward overnight ZARONIA rate r is derived from the fixed rate R by solving the following equation

$$1 + R \cdot \frac{d_c}{365} = \prod_{i \in U} \left(1 + \frac{r \cdot n_i}{365}\right) \quad (1)$$

where d_c is the number of calendar days from the effective date of the forward starting OIS to its termination

[3] This is a common assumption. See for example https://www.federalreserve.gov/econres/feds/inferring-term-rates-from-sofr-futures-prices.htm.

date, U is the set of business days from and including the effective date of the forward starting OIS up to but excluding its termination date, i is an individual business day in U and n_i is the number of calendar days from i to $i+1$ business day.

3.2.4 If there are multiple forward starting OIS contracts allocated to a single MPC period, the median implied forward overnight ZARONIA rate is used as the unique implied forward overnight ZARONIA rate for that MPC period.

3.2.5 The tenors of the Prototype have an effective date matching the spot (T+0) effective date of the OIS quotes and transactions used to determine the Prototype (excluding any use of the lookback for indicative spot rates) i.e. the business day prior to the Prototype publication. The associated termination date for each tenor is calculated from its effective date using the number of months for the tenor and the modified following convention.

3.2.6 For each tenor other than the 1-month tenor, the period from its effective date to its termination date can be partitioned as:

i. the period from the effective date of the tenor to the first MPC Effective Date ("Initial Period"),

ii. a number of complete MPC periods ("Complete Period") where such number could be zero, and

iii. the period from the final MPC Effective Date (prior to the termination date) to the termination date of the tenor ("Final Period").

3.2.7 Initial Period discount factor

3.2.7.1 For the Initial Period, if the termination date of the 1-month tenor is on or before the first MPC Effective Date, equation 1 is used to derive the forward overnight ZARONIA rate r implied by the 1-month tenor. In equation 1, R is the 1-month Prototype setting[4] determined using Level 1 (see 3.3.) or Level 2 (see 3.4). d_c is the number of calendar days from the effective date of the 1-month tenor to its termination date. U is the set of business days from and including the effective date of the 1-month tenor up to but excluding its termination date, i is an individual business day in U and n_i is the number of calendar days from i to $i+1$ business day.

3.2.7.2 As the policy rate is constant from the effective date of the 1-month tenor to the first MPC Effective Date, the 1-month implied forward overnight ZARONIA rate r is compounded over the period starting on the effective date of the 1-month tenor and terminating on the first MPC Effective Date to create a discount factor DF_{IP} for the Initial Period using the following equation.

$$\mathrm{DF}_{IP} = \frac{1}{\prod_{i \in U}\left(1 + \frac{r \cdot n_i}{365}\right)} \tag{2}$$

U is the set of business days from and including the effective date of the 1-month tenor up to but excluding the first MPC Effective Date, i is an individual business day in U and n_i is the number of calendar days from i to $i+1$ business day.

[4] Determination of the 1-month Prototype setting does not make use of forward starting ZARONIA OIS contracts.

3.2.7.3 For the Initial Period, if the termination date of the 1-month tenor is after the first MPC Effective Date, the discount factor implied by the 1-month tenor is divided by the discount factor from the first MPC Effective Date to the termination date of the 1-month tenor using the following equation.

$$\mathrm{DF}_{IP} = \left[\frac{1}{1 + R \cdot \frac{d_c}{365}}\right] \Big/ \left[\frac{1}{\prod_{i \in U}\left(1 + \frac{r \cdot n_i}{365}\right)}\right] \tag{3}$$

R is the 1-month Prototype setting determined using Level 1 (see 3.3) or Level 2 (see 3.4) and d_c is the number of calendar days from the effective date of the 1-month tenor to its termination date. U is the set of business days from and including the first MPC Effective Date up to but excluding the 1-month tenor termination date, i is an individual business day in U, r is the median implied forward overnight ZARONIA rate for the first MPC period (see 3.2.4) and n_i is the number of calendar days from i to $i + 1$ business day.

3.2.8 Complete Period discount factors

3.2.8.1 Discount factors DF_{CP} for each Complete Period (if any) are calculated using

$$\mathrm{DF}_{CP} = \frac{1}{\prod_{i \in U}\left(1 + \frac{r \cdot n_i}{365}\right)} \tag{4}$$

where U is the set of business days from and including the relevant MPC Effective Date up to but excluding the next MPC Effective Date, i is an individual business day in U, r is the median implied forward overnight ZARONIA rate for the first MPC period (see 3.2.4) and n_i is the number of calendar days from i to $i + 1$ business day.

3.2.9 Final Period discount factor

3.2.9.1 The Final Period discount factor DF_{FP} is calculated using equation 4 where U is the set of business days from and including the MPC Effective Date for the Final Period up to but excluding the termination date of the tenor, i is an individual business day in U, r is the median implied forward overnight ZARONIA rate for the Final Period (see 3.2.4) and n_i is the number of calendar days from i to $i + 1$ business day.

3.2.10 Implied rate for the Prototype tenor

3.2.10.1 The implied rate IR for a Prototype tenor is calculated as

$$IR = \frac{365}{d_c} \cdot \left[\frac{1}{DF_{IP} \cdot \left[\prod_{i \in U} DF_i\right] \cdot DF_{FP}} - 1\right] \tag{5}$$

where d_c is the number of calendar days from the effective date of the Prototype tenor to its termination date, U is the set discount factors DF_{CP} for the Complete Periods (if any) and i is an individual discount factor in U.

3.2.10.2 If there is insufficient input data to calculate any of the discount factors required for a Prototype tenor, no implied rate is calculated for that Prototype tenor.

3.2.10.3 A factor ("Implied Rate Factor") is calculated for each tenor to reflect the average number of forward starting OIS transactions used in the derivation of the implied rate. The Implied Rate Factor is the weighted average of the number of transacted forward starting OIS contracts used to derive the unique implied forward overnight ZARONIA rate for each MPC period. The weight for each MPC period is the number of days used in such MPC period for compounding implied overnight ZARONIA rates (which for Complete Periods is the total number of days in the period and, for the Final Period, is the number of days from the MPC Effective Date for the Final Period up to but excluding the termination date of the tenor) divided by the total number of such days. As the Initial Period uses the 1-month Prototype setting itself, it is not included in the Implied Rate Factor.

3.3 Level 1 determination

3.3.1 Once every 30 minutes between 09:00 to 18:00SAST on the business day prior to the Prototype publication date, the dealer quotes published once the market is active from the dealer-to-client trading platform (Tradeweb) are captured. In order to be valid, each bid rate to offer rate must be less than or equal to a maximum spread that is specified for each tenor, and the volume on the bid and offer rate must be greater than or equal to a minimum notional amount specific to that tenor. The mid-rate is calculated for each valid quote and then the median of the mid-rates for each 30 minute capture is taken as the unique rate for each 30 minute capture, giving up to 18 such unique rates.

3.3.2 For each Prototype tenor, the following rates are collected:

i. all unique 30 minute rates derived from the dealer-to-client trading platform (see 3.3.1),

ii. all spot starting OIS transacted rates from the CCP that satisfy a minimum notional size requirement, and

iii. other than the 1-month tenor, repeated instances of the implied rate for the Prototype tenor if sufficient input data is available to calculate one (see 3.2.10), where the number of such instances is the Implied Rate Factor.

3.3.3 For each tenor, all collected rates are sorted, and a percentage is trimmed from the highest rates and lowest rates. The rate for each tenor is then calculated as the mean of the remaining rates.

3.3.4 The Level 1 threshold for the determination of a tenor is that one of the following criteria is satisfied:

i. If there are at least a minimum number of unique 30 minute rates and a minimum number of transacted rates (combined spot starting OIS transactions and repeated instances of the implied rate), or

ii. If the number of unique 30 minute rates is lower than the relevant minimum in criteria (i) above but the number of transacted rates is higher than a new minimum that is greater than the relevant minimum in criteria (i) above, or

iii. If the number of transacted rates is lower than the relevant minimum in criteria (i) above but the number of unique 30 minute mid-rates is higher than a new minimum that is greater than the relevant minimum in criteria (i) above.

3.3.5 If the Level 1 threshold is not satisfied for a tenor, Level 2 is used for the determination of the tenor.

3.4 Level 2 determination

3.4.1 Once every 30 minutes between 09:00 to 18:00SAST on the business day prior to the Prototype publication date, indicative rates from indicative data sources and any available dealer quotes from the dealer-to-client trading platform (Tradeweb) each published once the market is active are captured. If any source of indicative data, other than Tradeweb, has not updated its indicative rates for a tenor or tenors such that at least one valid rate is captured for such tenor or tenors on the previous business day, rates for that source(s) and such tenor(s) are captured in the same manner from the preceding business day over the same data collection window.

3.4.2 In order to be valid, each indicative bid rate to offer rate must be less than or equal to a maximum spread that is specified for each tenor. If dealer quotes from the dealer-to-client trading platform (Tradeweb) are captured, such bid rates to offer rates must be less than or equal to a maximum spread that is specified for each tenor, and the volume on the bid and offer rates must be greater than or equal to a minimum notional amount specific to that tenor.

3.4.3 The mid-rate is calculated for each valid quote and then the median of the mid-rates (across both dealer quotes from the dealer-to-client trading platform and indicative rates from indicative data sources) for each 30 minute capture is taken as the unique rate for each 30 minute capture, giving up to 18 such unique rates.

3.4.4 For each Prototype tenor, the following rates are collected:

i. all unique 30 minute mid rates derived from the (i) dealer-to-client trading platform and (ii) indicative sources (see 3.4.3),

ii. all spot starting OIS transacted rates from the CCP that satisfy a minimum notional size requirement, and

iii. other than the 1-month tenor, repeated instances of the implied rate for the Prototype tenor if sufficient input data is available to calculate one (see 3.2.10), where the number of such instances is the Implied Rate Factor.

3.4.5 For each tenor, all collected rates are sorted, and a percentage is trimmed from the highest rates and lowest rates. The rate for each tenor is then calculated as the mean of the remaining rates.

3.4.6 The Level 2 threshold for the determination of a tenor is that one of the following criteria is satisfied:

i. If there are at least a minimum number of unique 30 minute rates and a minimum number of transacted rates (combined spot starting OIS transactions and repeated instances of the implied rate), or

ii. If the number of unique 30 minute rates is lower than the relevant minimum in criteria (i) above but the number of transacted rates is higher than a new minimum that is greater than the relevant minimum in criteria (i) above, or

iii. If the number of transacted rates is lower than the relevant minimum in criteria (i) above but the number of unique 30 minute mid-rates is higher than a new minimum that is greater than the relevant minimum in criteria (i) above.

3.4.7 If the Level 2 threshold is not satisfied for a tenor, the integrated fallback for that tenor is used.

3.5 Integrated fallback determination

3.5.1 Under the Integrated Fallback level, the spread between the Prototype on the previous business day and overnight ZARONIA compounded to the previous business day is applied to ZARONIA compounded to the day of the rate determination.

3.5.2 On each day t, the spread for Prototype tenor f, denoted $S(t, f)$ is calculated as

$$S(t,f) = FTZ(t-1,f) - \frac{365}{d(t_0, t-1)} \cdot \left[\prod_{\tau=t_0}^{t-2} \left(1 + \frac{d(\tau, \tau+1) \cdot R(\tau)}{365} \right) - 1 \right] \quad (6)$$

where $\mathrm{FTZ}(t-1, f)$ is the Prototype published on the preceding business day $(t-1)$ for tenor f, $R(\tau)$ is the ZARONIA rate published by SARB in respect of the day τ, $d(\tau, \tau+1)$ is the number of calendar days from τ to $\tau+1$ and $d(t_0, t-1)$ is the number of calendar days from t_0 to $t-1$. The product is over all business days from t_0 to $t-2$ where t_0 is 9 business days before $t-2$, resulting in 10 overnight ZARONIA compounds.

3.5.3 The Integrated Fallback for the Prototype with tenor f on day t, denoted $IF(t, f)$ is then calculated as

$$IF(t,f) = S(t,f) + \frac{365}{d(t_1, t)} \cdot \left[\prod_{\tau=t_1}^{t-1} \left(1 + \frac{d(\tau, \tau+1) \cdot R(\tau)}{365} \right) - 1 \right] \quad (7)$$

The product is over all business days from t_1 to $t-1$ where t_1 is 9 business days before $t-1$, resulting in 10 overnight ZARONIA compounds.

3.5.4 Any use of the integrated fallback level in a Prototype determination will be flagged when the relevant tenor or tenors are published.

3.6 Exercise of expert judgment

3.6.1 The SARB publishes MPC announcement dates on an annual basis meaning that MPC announcement dates that have not been published must be estimated using expert judgment in order to allocate transacted forward starting OIS contracts to MPC periods. To the extent possible, observed effective dates for forward starting OIS contracts are used to inform such use of expert judgment. Expert judgment is not used in any other respect in the determination of the Prototype.

3.7 Refix Policy

3.7.1 Following publication, if an error is identified in the input data or the determination of the Prototype, FTSE shall endeavour to refix the affected tenor or tenors of the Prototype.

Section 4

Publication

4. Publication

4.1 Publication

4.1.1 The Prototype is published at or around 10:30SAST on every business day that banks are open for business in South Africa and is dated as of the business day prior to the publication date. The Prototype is published to 3 decimal places.

4.1.2 The Prototype is available on the LSEG Workspace tile ZARTRR=RFTB and the following RICs:

- 1-month: ZARTRR1M=RFTB
- 3-months: ZARTRR3M=RFTB
- 6-months: ZARTRR6M=RFTB
- 9-months: ZARTRR9M=RFTB
- 12-months: ZARTRR1Y=RFTB

4.1.3 The Prototype is available via LSEG D&A products including LSEG Real Time, DataScope and Workspace.

4.2 Delayed publication

4.2.1 Publication of the Prototype may be delayed in the event that technical difficulties are preventing receipt of input data or there is reason to believe that either the input data or the determination of the Prototype includes a potential error.

Section 5

Further information

5. Further information

5.1 Further information

5.1.1 For further information regarding the Prototype, please contact FTSE Russell at index_queries@lseg.com and include “FTSE Term ZARONIA” in the email subject line.

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