Transition of Jibar-linked payment-in-advance derivatives

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Contents

1. INTRODUCTION AND BACKGROUND 3
1.1 South Africa's benchmark transition 3
1.2 Relevant fallback mechanics 3
1.3 Payment-in-advance derivatives 3
2. PROBLEM STATEMENT 4
2.1 Standard payment-in-arrears instrument 4
2.2 Payment-in-advance incompatibility 4
2.3 Consequences of no common treatment 5
3. SCOPE OF AFFECTED TRANSACTIONS 5
3.1 Scope test 5
3.2 Indicative product population 5
3.3 Exclusions 6
These include: 6
4. INTERNATIONAL PRECEDENT 6
4.1 CME treatment of FRAs 6
4.2 LCH SwapClear treatment of FRAs 6
4.3 Relevance to the South African market 6
5. RECOMMENDED TRANSITION APPROACH 6
5.1 Principles 6
5.2 Formal MPG recommendation 7
5.3 Transition sequence 7
6. OPERATIONAL CONSIDERATIONS 8
6.1 Portfolio identification 8
6.2 Bilateral amendment and confirmation 8
6.3 Booking and lifecycle processing 8
6.4 Exception management 8
7. CONCLUSION 8
ABBREVIATIONS 8

1. INTRODUCTION AND BACKGROUND

1.1 South Africa's benchmark transition

The Market Practitioners Group (MPG) is directing the South African market's orderly transition from the Johannesburg Interbank Average Rate (Jibar) to the South African Rand Overnight Index Average (ZARONIA). The MPG's published transition materials distinguish between active, passive and legislative transition pathways and set out product-specific recommendations for the derivatives and cash markets.[1]

A key component of the passive transition framework is the application of the contractual fallback to legacy Jibar-linked derivatives. Upon fallback application, Jibar is replaced with an adjusted compounded ZARONIA rate plus the applicable credit adjustment spread (CAS). This methodology reflects the fundamental difference between the two benchmarks: Jibar is a forward-looking term rate that is known at the beginning of the relevant interest period, whereas compounded ZARONIA is calculated from overnight rates observed during that period and is therefore determined in arrears.

For most derivatives that settle at the end of the accrual period, this difference can be accommodated within the existing contractual cash-flow structure. However, industry implementation work has identified a specific challenge for certain uncleared derivatives that settle in advance. This paper addresses the interaction between these payment-in-advance mechanics and the backward-looking fallback methodology.

1.2 Relevant fallback mechanics

Under the International Swaps and Derivatives Association's (ISDA) fallback methodology, the adjusted risk-free rate is calculated by compounding the relevant overnight rate over a fallback observation period corresponding to the original Jibar tenor, subject to the prescribed backward shift or other applicable observation mechanics. The applicable CAS is then added to the adjusted risk-free rate to determine the all-in fallback rate.

Since the adjusted rate depends on overnight observations collected during the relevant period, the all-in fallback rate ordinarily becomes available only towards the end of the fallback observation period. The fallback provisions therefore also take account of the contractual payment date. Where the fallback rate associated with the original fixing date is not available sufficiently in advance of payment, the applicable documentation may require the use of a fallback rate associated with an earlier original fixing date.

While this mechanism provides contractual certainty, it may not preserve the intended economics of a payment-in-advance transaction. The earlier fallback rate may be calculated over a fallback observation period that precedes, and differs materially from, the economic interest-rate period of the original transaction.

1.3 Payment-in-advance derivatives

For purposes of this recommendation, a payment-in-advance transaction is a Jibar-linked derivative, or an individual cash flow in it, for which the relevant Jibar rate is determined, and the payment or settlement occurs, at or near the beginning of the accrual period to which that rate relates.

The definition is functional and should be applied by reference to the contractual fixing, accrual and payment terms of the transaction, rather than solely to its product classification. It may therefore include forward rate agreements (FRAs), certain caplets and floorlets, payment-in-advance swaps and other Jibar-linked derivatives with equivalent cash-flow mechanics.

Under the original contractual terms, the structure is workable because Jibar is a forward-looking term rate that is available at the beginning of the relevant period. The transition issue arises because, upon fallback application, Jibar is replaced with a backward-looking compounded rate that is ordinarily determined only towards the end of the corresponding fallback observation period. Applying the contractual fallback to the original payment-in-advance structure may therefore result in the applicable fallback rate being unavailable by the contractual payment date or in the use of a rate calculated over an earlier fallback observation period that does not correspond to the original economic interest-rate period.

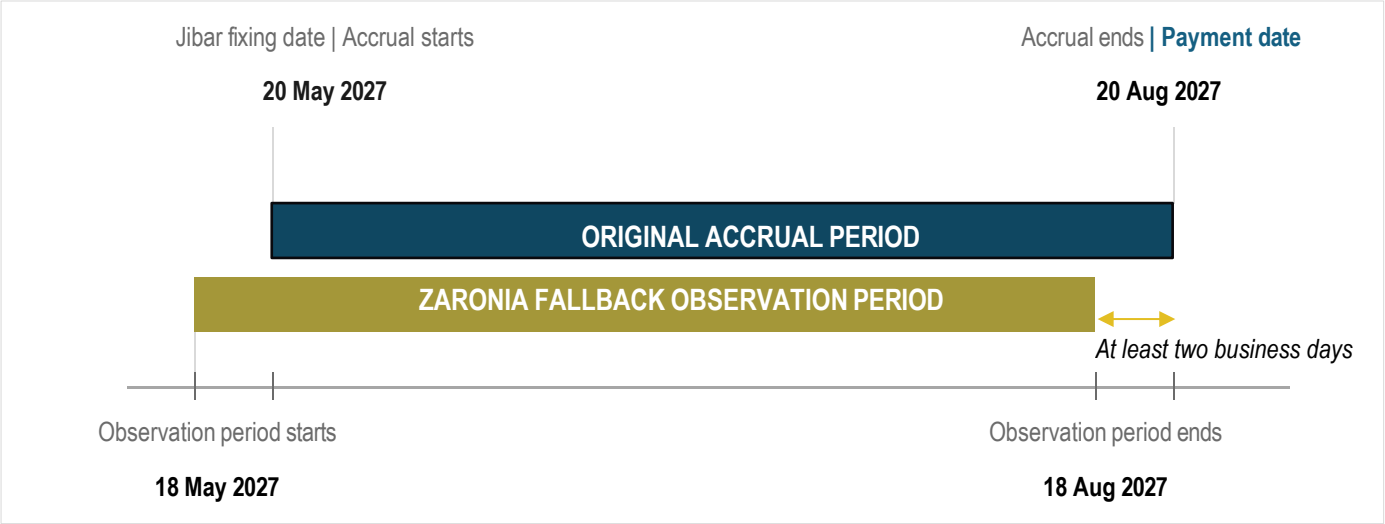
[1] MPG Transition Workstream, Transition Approaches: Recommendations formulated for consideration by the MPG, February 2026.

2. PROBLEM STATEMENT

2.1 Standard payment-in-arrears instrument

A standard interest-rate swap coupon generally accrues over a defined period and is paid at the end of that period. Fallback application is compatible with this structure because the overnight observations occur during the accrual period and the final payment follows the determination of the compounded rate, subject to the contractual calculation and settlement lag.
See Figure 1 for an illustration of an in-arrears derivative payment.

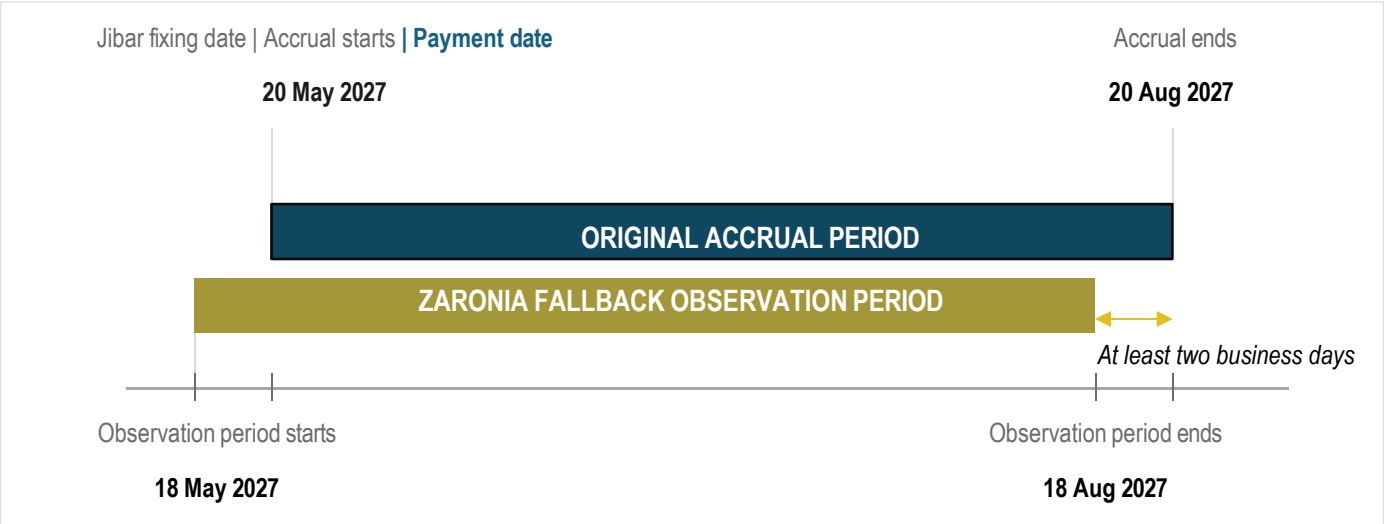
Figure 1: Fallback application to a payment-in-arrears derivative



2.2 Payment-in-advance incompatibility

In a payment-in-advance derivative, such as an FRA, the reference rate is typically determined, and settlement occurs, at the beginning of the underlying accrual period. The settlement amount represents the discounted value, at the start of the period, of the interest differential that economically relates to the subsequent accrual period. A backward-looking rate for that period is not yet observable on the contractual settlement date. See Figure 2 for an illustration of an in-advance derivative payment.

Figure 2: Payment-in-advance incompatibility illustration



Please note: Dates are illustrative and remain subject to the applicable fallback observation, business-day and payment conventions.

In the above example, the forward-looking rate is known on 20 May 2027 and the settlement amount is paid on that date. Upon fallback application, the adjusted ZARONIA rate corresponding to the intended three-month economic interest-rate period would require overnight observations extending to approximately the end of that period, subject to the applicable backward shift. The

applicable all-in fallback rate is therefore not available on 20 May 2027. Direct application of the contractual fallback may therefore produce either of two unintended outcomes:

2.2.1 **Rate-availability failure:** The contractual payment falls due before the fallback rate corresponding to the intended economic interest-rate period can be calculated.

2.2.2 **Economic-replication failure:** A mechanically available earlier fallback rate may be calculated over a fallback observation period that differs from the original economic interest-rate period, changing the transaction's sensitivity to interest-rate movements and weakening the intended hedge relationship.

2.3 Consequences of no common treatment

Without a consistent market approach, counterparties may interpret the fallback observation period, payment-date adjustment, conversion mechanics and the net present value (NPV) treatment differently, causing economically similar transactions to transition differently. The resulting fragmentation could create bilateral valuation disputes, confirmation mismatches, operational exceptions and basis risk between the derivative and the exposure it was intended to hedge.

3. Scope of Affected Transactions

3.1 Scope test

A Jibar-linked derivative, or an individual cash flow within such a derivative, falls within the scope of this recommendation where:

1. the applicable Jibar rate is determined at or before the beginning of the related accrual period;
2. the resulting payment or settlement occurs at or near the beginning of that accrual period; and
3. direct application of the contractual fallback without modifying the payment mechanics would either:
    a. leave the fallback rate corresponding to the intended economic interest-rate period unavailable by the contractual payment date; or
    b. require the use of a fallback rate calculated over a fallback observation period that differs materially from the original economic interest-rate period.

The test should be applied to the transaction's actual fixing, accrual, calculation and payment terms. For a transaction containing multiple cash flows, including a cap, floor or multi-period swap, the assessment should be performed separately for each potentially affected cash flow.

A transaction should not be brought within scope merely because it references Jibar or contains an early fixing date. The defining characteristics are that the original Jibar-linked cash flow is paid in advance and that direct application of the contractual fallback would either create a rate-availability problem or alter the intended economic exposure.

3.2 Indicative product population

The product classifications below are indicative; whether a transaction falls within scope is determined by the functional scope test.

Product class	Indicative classification	Rationale
Uncleared FRAs	Presumptively in scope	Fixing and settlement generally occur at the start of the underlying accrual period.
Payment-in-advance single-period swaps	Presumptively in scope	The payment mechanics ordinarily result in payment occurring before the fallback rate corresponding to the intended economic interest-rate period becomes available.
Caplets and floorlets settling in advance	Conditional	In scope where settlement precedes availability of the fallback rate corresponding to the intended economic interest-rate period.
Multi-period caps and floors	Cash-flow assessment	Each caplet or floorlet should be tested separately.
Swaps with advance-paid floating cash flows	Cash-flow assessment	Only the affected cash flows require structural remediation.
Standard payment-in-arrears swaps	Out of scope	Following fallback application, the compounded rate can ordinarily be determined before payment.

3.3 Exclusions

These include:

3.3.1 transactions that mature before the relevant fallback becomes effective;
3.3.2 transactions with agreed provisions that already produce a workable and mutually accepted outcome;
3.3.3 standard payment-in-arrears derivatives;
3.3.4 cleared transactions governed by a central counterparty's conversion rules; and
3.3.5 new ZARONIA-native transactions.

The exclusions do not prevent counterparties from agreeing another bilateral transition route. They define the population for which the MPG's specific payment-timing recommendation is required.

4. International Precedent

4.1 CME treatment of FRAs

In its January 2021 advisory[2] on the application of interbank offered rate (IBOR) fallbacks to cleared over-the-counter (OTC) interest-rate products, the Chicago Mercantile Exchange (CME) excluded FRAs from the standard fallback application. CME explained that a backward-looking fallback rate is not known until the end of the interest period, whereas an FRA is designed to pay at the start. Using the previously published fallback rate could shift the interest-rate risk period and alter the economic exposure. CME therefore proposed converting each affected FRA into an equivalent single-period interest-rate swap with an effective date corresponding to the original FRA settlement date and with the same fixed rate, maturity, notional and direction.

4.2 LCH SwapClear treatment of FRAs

LCH Limited (LCH), through its SwapClear service, reached the same substantive conclusion.[3] LCH noted that the backward-looking fallback methodology was likely to have a significant impact on FRAs, which rely on a forward-looking rate at expiry. LCH proposed converting each affected FRA into a single-period swap on the cessation effective date. The converted transaction would have an effective date equal to the original FRA settlement date, run for the original designated maturity and retain the original fixed rate.

4.3 Relevance to the South African market

The international precedents concern centrally cleared derivatives. CME and LCH could implement their approaches through clearing-house rules and binding conversion procedures. The South African issue addressed in this paper principally concerns uncleared transactions. Accordingly, the transition approach proposed for affected uncleared Jibar transactions applies the same economic principle through bilateral payment-date amendment. The precedents support addressing the incompatibility through a payment-date amendment that moves payment to the end of the original accrual period while preserving the original economic interest-rate period, rather than through direct fallback application using a rate calculated over a displaced fallback observation period.

5. Recommended Transition Approach

5.1 Principles

5.1.1 **Preserve the original economic interest-rate period:** The remediation should retain the original accrual start and end dates and should not substitute a materially earlier fallback observation period.
5.1.2 **Make the minimum necessary structural change:** The payment-date amendment should make only those changes necessary to enable the subsequent application of the backward-looking fallback.
5.1.3 **Apply a functional product test:** Scope should be determined from actual cash-flow mechanics rather than product labels.
5.1.4 **Require bilateral agreement:** The transition approach does not itself amend uncleared contracts; the payment-date amendment requires bilateral agreement between the counterparties.
5.1.5 **Identify value transfer transparently:** Any NPV difference arising from the payment-date amendment should be identified, calculated and addressed bilaterally, separately from the subsequent fallback application.
5.1.6 **Use the established fallback framework:** Following the payment-date amendment, fallback application should proceed in accordance with the applicable ISDA fallback provisions.

[2] CME Group, Advisory Notice on the implementation of the ISDA IBOR Fallbacks for CME cleared OTC IRS Products, 25 January 2021
[3] London Stock Exchange Group, LCH's proposed position in respect of Benchmark Fallbacks and Forward Rate Agreements (FRAs), December 2020

5.2 Formal MPG recommendation

The MPG recommends that counterparties identify uncleared Jibar-linked derivatives, or individual cash flows within them, for which the applicable Jibar rate is determined, and payment or settlement occurs, at or near the beginning of the related accrual period.

Where direct application of the contractual fallback would make the fallback rate for the intended economic interest-rate period unavailable by the original payment date, or would require a rate calculated over a materially different observation period, the counterparties should, subject to bilateral agreement, first amend the transaction so that the affected payment occurs at the end of the existing accrual period, with Jibar remaining the applicable reference rate. Any NPV difference arising from the amendment should be identified, calculated and addressed bilaterally, separately from the subsequent fallback application.

Thereafter, fallback application should follow the applicable ISDA fallback provisions, replacing Jibar with compounded ZARONIA plus the applicable CAS.

The recommendation does not itself amend any transaction, prescribe a mandatory valuation methodology or displace the parties' contractual terms.

5.3 Transition sequence

5.3.1 **Step 1: Identify affected transactions.** Review the uncleared Jibar portfolio, apply the functional scope test and assess component cash flows where necessary.

5.3.2 **Step 2: Confirm the intended economic interest-rate period.** Record the original fixing date, accrual dates, payment date, notional, fixed rate or strike, transaction direction and relevant discounting convention.

5.3.3 **Step 3: Complete the payment-date amendment while retaining Jibar.** Move the affected payment to the end of the existing accrual period and make only the consequential changes required to process the revised cash flow.

5.3.4 **Step 4: Determine the NPV effect.** Calculate any NPV effect arising from the payment-date amendment independently of the subsequent fallback application and agree its bilateral treatment.

5.3.5 **Step 5: Execute and confirm the amendment.** The payment-date amendment should be recorded in the parties' contractual documentation and booking systems before fallback application.

5.3.6 **Step 6: Complete the fallback application.** Apply the relevant ISDA fallback provisions to the amended transaction, replacing Jibar with compounded ZARONIA plus CAS.

5.3.7 **Step 7: Reconcile the resulting cash flow.** Confirm the fallback observation period, calculation date, payment date and final amount between the counterparties.

5.4 Worked payment date amendment illustration

The illustration below shows the payment-date amendment while Jibar remains the reference rate. Step 6 addresses the subsequent fallback application.

Attribute	Original transaction	Post payment-date amendment
Product form	Jibar FRA	Jibar-linked single-period payment-in-arrears derivative
Accrual period	20 May to 20 August 2027	Unchanged
Payment date	20 May 2027	Moved to 20 August 2027, subject to the applicable business-day adjustment and any agreed calculation or payment lag
Reference rate	Jibar	Jibar
Rate determination	Jibar determined on 20 May 2027	The Jibar rate continues to be determined at the beginning of the accrual period
Notional and direction	Original contractual terms	Unchanged
Fixed rate	Original FRA fixed rate	Unchanged
NPV impact	No amendment has occurred	Any NPV difference arising from the payment-date amendment is identified, calculated and addressed bilaterally before fallback application.

6. Operational Considerations

6.1 Portfolio identification

Participants should identify uncleared Jibar-linked transactions expected to remain outstanding when the applicable fallback becomes effective and capture the data necessary to apply the scope test. Required fields include product type, transaction identifier, counterparty, benchmark and tenor, fixing date, accrual dates, payment date, maturity, governing definitions, fallback status and confirmation platform.

6.2 Bilateral amendment and confirmation

The payment-date amendment should be bilaterally agreed and confirmed before fallback application. The confirmation should clearly distinguish the payment-date amendment from the subsequent fallback application.

6.3 Booking and lifecycle processing

Booking teams should verify that the revised product form supports end-period settlement and the subsequent fallback application, including the applicable fallback observation period, the CAS and any calculation lag. Where an affirmation, confirmation or transaction-processing platform is used, including OSTTRA Connect where applicable, participants should confirm that the amended payment mechanics and resulting economics are represented consistently for both counterparties.

6.4 Exception management

Transactions that cannot be bilaterally amended, that contain bespoke optionality, or for which the parties cannot agree the scope or valuation treatment should be escalated through each participant's established transition process. An exception should not lead to the automatic use of an earlier fallback observation period without an assessment of the resulting economic effect.

7. Conclusion

Payment-in-advance derivatives expose a structural limitation in the direct application of a backward-looking compounded fallback rate. The problem is most evident for FRAs but can arise in any derivative cash flow that is payable before the rate for the intended economic interest-rate period can be determined. Direct application may either leave the relevant fallback rate unavailable on the payment date or expose the transaction to a rate calculated over an earlier fallback observation period, thereby altering the intended economic exposure.

CME and LCH SwapClear addressed the corresponding London Interbank Offered Rate (LIBOR)-transition issue by converting affected FRAs into single-period swaps. The MPG recommends that the same economic principle be applied to affected uncleared Jibar transactions through a two-stage transition approach. First, the counterparties should complete a bilateral payment-date amendment that moves payment to the end of the existing accrual period, with any resulting NPV effect addressed between them. The applicable ISDA fallback provisions can thereafter be applied to the amended payment-in-arrears transaction.

This transition approach addresses only the identified incompatibility between payment-in-advance mechanics and direct application of the contractual fallback. It does not replace the broader MPG transition framework, prescribe a valuation methodology or amend contracts without bilateral agreement.

Abbreviations

CAS	credit adjustment spread
CME	Chicago Mercantile Exchange
FRA	forward rate agreement
IBOR	interbank offered rate
ISDA	International Swaps and Derivatives Association
Jibar	Johannesburg Interbank Average Rate
LIBOR	London Interbank Offered Rate
MPG	Market Practitioners Group
NPV	net present value
OTC	over the counter
SARB	South African Reserve Bank
ZARONIA	South African Rand Overnight Index Average