



**Risk Management Department**

**No.RMD/DRV/23/14**

**Date: 29/04/2023**

**FOR INFORMATION OF ALL MEMBERS**

**Rupee Derivatives Segment**

**Transitioning Outstanding MIFOR Swaps post Index Cessation**

CCIL offers CCP clearing services for inter-bank trades referenced to the MIFOR benchmark. All banks, including banks which have not availed CCP clearing for the MIFOR benchmark report their MIFOR trades to CCIL's Trade Repository (TR). CCIL provides Non-Guaranteed Settlement (NGS) services for the non-cleared MIFOR trades.

MIFOR is derived from USD LIBOR and USD INR forward premium. The UK Financial Conduct Authority (FCA) and ICE Benchmark Administrator (IBA) announced on 5<sup>th</sup> March 2021 that after 30<sup>th</sup> June'2023, the 6M USD LIBOR settings will be provided by the Administrator on a "synthetic basis". Hence, 30<sup>th</sup> June 2023 is the "Index Cessation Effective Date" (ICED) which will trigger the ISDA fallback.

In the light of the above, we invite your attention to the provisions of chapter XVII (titled "Conversion of Legacy MIFOR Trades") of the Regulations of the Rupee Derivatives Segment. In terms of these provisions, in view of the impending index cessation event, CCIL shall take the following steps to convert the impacted cleared and non-cleared legacy MIFOR trades to trades linked to Modified MIFOR.

1. All outstanding MIFOR trades cleared by CCIL and those that are not cleared but are settled by CCIL on NGS basis will be referenced to Modified MIFOR if such trades have cash flows with reset date beyond 30th June'23. The trade attributes of the legacy MIFOR trades will be carried on to the new trades.
2. The cash flow for all these outstanding MIFOR trades having reset date on or before 30<sup>th</sup> Jun, 2023 will be settled based on the corresponding MIFOR rate published by FBIL.



- 3. The cash flows for all these MIFOR trades having reset date after 30<sup>th</sup> June, 2023 will be settled based on the corresponding Modified MIFOR rate published by FBIL plus a spread for the relevant reset date and Designated Maturity (=6M).
- 4. The spread<sup>1</sup> as mentioned in para-(3) above will be uniform across all trade maturities.
- 5. CCIL has computed the median value of daily spread between 6M MIFOR and 6M Modified MIFOR along the same lines as the methodology followed by ISDA and over the same 5 year look back period (Sept 2015 to Sep 2020). The data sources used for spread computation are given below:

6M MIFOR

April 2018 to Sep 2020	FBIL published 6M MIFOR rates
Sep 2015 to Mar 2018	Computed using FBIL methodology for MIFOR using the 6M LIBOR published by ICE and EOD 6M forward premia sourced from Reuters page “INR1F= ”

6M Modified MIFOR

April 2018 to Sep 2020	Computed using FBIL methodology for Modified MIFOR using 6M Adjusted SOFR and 6M forward premia published by FBIL
Sep 2015 to Mar 2018	Computed using FBIL methodology for Modified MIFOR using 6M Adjusted SOFR and EOD 6M forward premia sourced from Reuters page INR1F=

Table: 2 Sources to compute median daily spread between 6M MIFOR and 6M Modified MIFOR for the period Sep 2015 to Sep 2020

The computed value of median daily spread between 6M MIFOR and 6M Modified MIFOR over a 5 year look back period (Sept 2015 to Sep 2020) using the data sources as mentioned in Table -3 above comes to 44.25 bps.

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<sup>1</sup> This is in line with the approach that has been agreed for 6M USD LIBOR swaps wherein a fixed ISDA spread of 42.826 bps is added to 6M compounded SOFR to convert an input 6M LIBOR contract to 6M SOFR contract irrespective of the swap maturity. ISDA spread of 42.826 bps between 6M USD LIBOR and 6M SOFR was arrived at based on the median value of daily spread between 6M USD LIBOR and compounded overnight SOFR of 6 months computed over the 5 year look back period (Sept 2015 to Sep 2020).



6. Existing eligible MIFOR trades shall be cancelled on the conversion date. For each MIFOR trade that is cancelled, 3 new trades will be booked as given below:
- New short-term MIFOR trade
  - New short-term Modified MIFOR trade
  - Replacement Modified MIFOR trade

Trades (a) and (b) are “overlay” bookings to handle the first cash flow post ICED. Modified MIFOR trades are to be booked with floating leg = 6M Modified MIFOR + 44.25 bps. All the 3 trades (i.e. (a) to (c) above) shall have the same trade attributes (Trade date, Effective date, Notional Principal) as the original MIFOR trade except that the direction of the new short-term Modified MIFOR trade shall be reversed and the termination dates of the two short term trades will be the last Cash flow date of the legacy trade having a reset date on or before the ICED.

7. An illustration of an outstanding MIFOR trade and the proposed trades post conversion is given below:

	Legacy MIFOR Trade	New Short term MIFOR trade	New Short term MODIFIED MIFOR trade	Replacement Modified MIFOR Trade
Trade ID	12345	12345_1	12345_2	12345_3
Trade Date	26-Nov-20	26-Nov-20	26-Nov-20	26-Nov-20
Member	A	A	A	A
Counterparty	CCIL	CCIL	CCIL	CCIL
Notional Amount (in Rs. Crores)	50	50	50	50
Effective Date	1-Dec-20	1-Dec-20	1-Dec-20	1-Dec-20
Termination Date	1-Dec-25	<b>1-Dec-23</b>	<b>1-Dec-23</b>	1-Dec-25
Pay/ Receive	Pay fix	Pay fix	<b>Receive fix</b>	Pay fix
Fixed Rate	6.22	6.22	6.22	6.22
Seller Benchmark Index	MIFOR	MIFOR	<b>Modified MIFOR</b>	<b>Modified MIFOR</b>
Seller Benchmark Designated Maturity	6 M	6 M	6 M	6 M
Seller Spread (bps)	0	0	<b>44.25</b>	<b>44.25</b>
Trade Status	Cleared	Cleared	Cleared	Cleared

Table: 2 Illustration - Legacy MIFOR trade and 3 proposed replacement trades



## 8. Other Aspects

8.1 As CCIL will book new trades as above, new trade IDs and member reference numbers will be generated for the trades by CCIL. CCIL will provide a report to members to enable them to link these trades with the old legacy contracts to facilitate further life cycle processing events.

8.2 All outstanding cleared trades as on the conversion date having at least one cash flow getting reset after Jun 30, 2023 will be mandatorily subject to this conversion. In case members do not wish to subject their trades to this conversion process, they should ensure that these trades are cancelled / reversed by both counterparties to the trade before the CCIL conversion date. The new trades replacing a legacy cleared MIFOR trade will be accepted for clearing by CCIL.

8.3 In case of non cleared trades, only those trades where both counterparties agree to the conversion shall be subject to this conversion to Modified MIFOR.

8.4 As a consequence of conversion of non-cleared MIFOR trades to Modified MIFOR, one or more of the resultant overlay trades and the replacement trades may become eligible for CCP clearing as some of these trades will now meet CCIL's eligibility criteria for CCP clearing. If both the counterparties to such trades have availed CCP clearing services offered by CCIL, then these newly eligible trades shall be accepted for clearing by CCIL, subject to availability of adequate margins in case of both the counterparties.

## 9. Proposed Cash Compensation Methodology

The conversion may give rise to one or more payment obligations being owed by the Clearing Corporation to a Member of the Rupee Derivatives Segment or by a Member of the Rupee Derivatives Segment to the Clearing Corporation hereinafter referred to as a 'Cash Compensation'. The calculation of 'Cash Compensation' Payment in each case shall be as per the process described below.

9.1 As stated in para 6 above, for each MIFOR trade cancelled, 3 new replacement trades are to be booked as given below:

a) New short-term MIFOR trade



b) New short-term Modified MIFOR trade with floating leg as 6M Modified MIFOR +44.25 bps

c) Replacement Modified MIFOR trade with floating leg as 6M Modified MIFOR +44.25 bps  
Cash compensation needs to be exchanged to make the replacement trades NPV neutral with respect to the original trades referred to as the input trades.

9.2 If PV(s) of 4 trade tickets (i.e. Legacy MIFOR trades and 3 proposed replacement trades) on the proposed trade conversion date are as given below:

$PV_1$  = PV of a legacy MIFOR trade

$PV_2$  = PV of New short-term MIFOR trade

$PV_3$  = PV of New short-term Modified MIFOR trade with floating leg as 6M Modified MIFOR + 44.25 bps

$PV_4$  = PV of Replacement Modified MIFOR trade with floating leg as 6M Modified MIFOR + 44.25 bps

Then,  $Cash\ Compensation = PV_1 - Sum (PV_2 + PV_3 + PV_4)$

Such Cash Compensation will be computed for each cleared MIFOR trade and summed up across all cleared MIFOR trades of a Member to arrive at Member wise Cash Compensation payable or receivable by a member. If the combined value of the replacement trades created is more than that of the legacy contract, member will be required to pay the difference as cash compensation to CCIL. If the combined value of the replacement trades created is less than that of the legacy contract, member will be entitled to receive the difference as cash compensation from CCIL. The same methodology for Cash Compensation shall be adopted for non cleared MIFOR trades.

9.3 On the day of the transition, all members with outstanding MIFOR trades shall submit their estimates of the MIFOR swap (Mid) rates (for all standard tenors). The tenors on which members will be required to provide their MIFOR swap rates to CCIL and the conventions used to convert these to equivalent continuously compounded zero rates are as under:



Tenor	Expected Convention
1M	Single Cash flow at end of Tenor
2M	Single Cash flow at end of Tenor
3M	Single Cash flow at end of Tenor
6M	Single Cash flow at end of Tenor
9M	Single Cash flow at end of Tenor
1Y	Semi-annual Cash flow
2Y	Semi-annual Cash flow
3Y	Semi-annual Cash flow
4Y	Semi-annual Cash flow
5Y	Semi-annual Cash flow
7Y	Semi-annual Cash flow
10Y	Semi-annual Cash flow

For tenors where no quotes are submitted by banks, CCIL proposes to use the quote available on Reuters page INRIRS. Further, if no quote is available on this Reuters page, then CCIL proposes to arrive at the rate by interpolation of swap quotes for nearby tenors.

9.4 Where swap rates submitted by members are +/- 3 SD (standard deviation) away from the mean, such rates shall be deemed to be outliers. After removal of outliers, Clearing Corporation shall arrive at the “trimmed mean” for each standard tenor point of MIFOR. The “trimmed mean” for each swap tenor point will then be used for valuation of MIFOR trades as part of the conversion program. CCIL will publish the MIFOR curve arrived at as above and used for arriving at Cash Compensation. The names of the Banks submitting the quotes shall be kept confidential. CCIL will only publish the number of Banks who submitted the quotes and number of Banks whose quotes got considered post outlier exclusion for each swap tenor point.

9.5 CCIL shall value the legacy MIFOR swap trades using the polled MIFOR curve (post outlier exclusion) with the same curve being used for discounting. CCIL shall value the new short-term MIFOR swap trades booked as part of the conversion program using the polled MIFOR curve (post outlier exclusion). For valuing these short term MIFOR swap trades, the Modified MIFOR curve (as described below) will be used for discounting. CCIL shall value the Modified MIFOR swaps as part of the conversion program using the Modified MIFOR curve derived using the quotes on Reuters pages USDSROIS= (SOFR OIS swaps), INR=1F (Forward premia) and INRMODIRS. The same curve shall be used for discounting.



9.6 The Spot USDINR Exchange rate used shall be the rate of the last interbank trade (of value USD one million or more) concluded till 3:30 PM<sup>2</sup> on the FX Clear Dealing platform operated by Clearcorp Dealing Systems (India) Limited.

## 10. Operational Aspects of Transition

10.1 Transition / Conversion Date: The transition / conversion date for both cleared and non-cleared trades shall be May 26, 2023. The cancellation of legacy MIFOR trades and booking of new trades shall also be done on May 26, 2023 and will reflect in CCIL's systems and reports on the same day itself.

10.2 Booking of trades in CCIL's systems: CCIL shall record 4 trades for each eligible legacy MIFOR trade by 6 p.m. on the day of the transition in its systems including its Trade Repository as under:

- a) Cancellation of Legacy MIFOR trade
- b) Short Term MIFOR trade
- c) Short Term Modified MIFOR trade
- d) Replacement Modified MIFOR trade

10.3 Settlement of cash flows: Settlement of the cash flows on the legacy and the new trades will be guided as below.

- a) Till May 26, 2023: The cash flows of the legacy MIFOR trades eligible for transition shall be settled up to the settlement cycle on May 26, 2023.
- b) From May 29, 2023 onwards: The cash flows of the new trades will begin from the settlement cycle on May 29, 2023 onwards.

10.4 Margin on the new trades: On the day of the transition, CCIL shall compute the margin requirement on account of the newly booked trades that will replace the legacy cleared MIFOR trade. If margins are insufficient post acceptance of these new trades, members will be required to replenish margins by 9:00 AM on the next business day.

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<sup>2</sup>. Any change in the inter-bank market trading hours by RBI prior to the transition date will apply on this timing as well.



10.5 Cash compensation

- a) CCIL shall compute cash compensation as of the transition date as per the methodology detailed in Section- 5 above. The compensation amount is intended to compensate members for any change in value of the MIFOR swaps due to the conversion process to Modified MIFOR.
  
- b) To determine the member-wise compensation amount, the trade-wise cash compensation value for each trade (cleared and non-cleared) subject to conversion shall be calculated. The compensation amount shall be rounded to the nearest rupee for each member. Due to such rounding, CCIL may be required to adjust the net payable and / or net receivable amount for one or more members to ensure that the sum of total receivable and total payable is zero across all members. Such adjustment will be done at the discretion of CCIL and would be done for up to a maximum of one rupee and would be done separately for non-cleared and cleared trades cash compensation. A member may be liable to pay or be entitled to receive cash compensation. The cash compensation amount shall be computed separately for each member's cleared and non-cleared legacy trades, and CCIL will advise both amounts to respective members on May 27, 2023. The cash compensation shall be settled on 30<sup>th</sup> May'23. Members liable for cash compensation are required to pre-fund the same i.e. they have to credit CCIL's RTGS Settlement Account at RBI with the amount payable. After all the pay-ins have been so credited, CCIL shall release the payouts to the RTGS Settlement Account of those members who are eligible to receive the cash compensation.

10.6 Member Reports: CCIL will be making the following reports available on the day of the transition by 7:30 p.m to facilitate the booking of the trades in member systems on the conversion day through CCIL's report browser:

- a) Confirmation of Trades Terminated / Created for Transition of Legacy MIFOR trades
- b) Trade File - Deal Reporting NEWT<sup>3</sup>
- c) Trade File - Deal Reporting CANC<sup>4</sup>
- d) Linkage of Trades Terminated / Created for Transition of Legacy MIFOR trades

Members shall not report any of these transition related trades to CCIL.

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<sup>3</sup> NEWT: New Trade

<sup>4</sup> CANC: Cancellation Trade





11. In terms of the provisions of Clause E(2) of Chapter VII (titled Settlement Shortages and Defaults”) of the Regulations of the Rupee Derivatives Segment, read with our Notification RMD/ DRVT/23/05, dated 14<sup>th</sup> Feb’23, in the event of a member being declared as a defaulter, the trades of the Defaulter Member shall be closed out on a trade by trade basis with the original counter-parties to the trade. Where the defaulter member's portfolio of outstanding trades includes the trades mentioned in para 6 above, such trades shall also be closed out and the close out shall be with the original counterparties of the legacy cleared MIFOR trades.

12. An overview of each activity along with the timelines that all participants are expected to adhere to is provided in the Annexure to the notification.

**For The Clearing Corporation of India Ltd**

**Sd/-**

**Managing Director**

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## Annexure

## Schedule

S No	Date	Activity	Timeline
1	Day 1 Friday, 26-May-2023	Members to provide CCIL with EOD MIFOR curve as on business day 26-May-2023.  This information will be provided by members in a email addressed to ccil_mifor_transition@ccilindia.co.in with the subject as 'Cash Compensation MIFOR transition: MIFOR swap curve'	By 06-00 PM
2	Day 1 Friday, 26-May-2023	CCIL to book the Cancellations and the New Trades for eligible cleared and non-cleared MIFOR trades which are outstanding as on 26-May-2023 in CCIL's database	By 6-00 PM
3	Day 1 Friday, 26-May-2023	CCIL to provide reports (.csv files and PDF reports) to members to enable them to book the Cancellations and the New Trades in their systems.  Reports will be available on CCIL's reports browser.  <b><i>Members will not report these Cancellations and New trades to CCIL separately.</i></b>  <b>They however need to validate all Cancellations and New Trades booked and point out any discrepancy to CCIL immediately.</b>	By 7-30 PM
4	Day 2 Saturday, 27-May-2023	CCIL to compute the Cash Compensation amount for non-cleared and cleared trades and intimate to members over email. The <u>settlement will be done separately for cleared and non-cleared trades – i.e. there will be no netting of the cash compensation amounts arrived at for cleared and non-cleared trades.</u> CCIL to provide the MIFOR curve used to arrive at the Cash Compensation.	By 3-00 PM



5	Day 3 Tuesday, 30-May-2023	<b>Members with a payable position on account of Cash compensation for non-cleared and / or cleared trades to credit the pay-ins to CCIL</b> (CCIL will intimate the account number along with the cash compensation amount).	By 10-00 AM
6	Day 3 Tuesday, 30-May-2023	<b>Members with a receivable position on account of Cash compensation for non-cleared and / or cleared trades will receive the pay-outs by credit to member's account at RBI.</b>	By 1-00 PM