## Interest Rate Swap (IRS)

## This Product Disclosure Statement is in reference to RBI Circular dated 16.09.2021, Master Direction - Reserve Bank of India (Market-makers in OTC Derivatives) Directions, 2021.

This document contains standard information about the product which may enable the user to determine if the product will meet its hedging needs and to facilitate comparison with other products.

## Features

This derivative product is an instrument to convert the floating rate liability to fixed rate liability and vice versa. Here, user pays the fixed rate/ floating rate and receives the floating rate/fixed rate. Taken together with the underlying loan, this effectively converts user's floating/fixed rate liability into a fixed/floating rate liability. Such exchange of cashflows are known as an Interest Rate Swap (IRS).

In other words, the user can convert the underlying floating rate cashflows into fixed rate cashflows and vice versa.

Illustration:
For an underlying liability in USD where user converts floating rate coupons into fixed rate coupons

The underlying exposure for this transaction is a USD liability where user has floating interest rate payments linked to overnight SOFR. User is thus exposed to the risk of increasing overnight SOFR resulting in higher USD cost. Here, user has hedged this risk by converting the floating overnight SOFR rate to a fixed rate for the residual tenor and notional of the underlying liability.

## Building Blocks:

The building blocks of this option are as below:
a. Overnight SOFR rate curve

## Costs and fees, including break-up and details

The swap cost consists of market cost which is determined through Bid/Offer spread of building blocks, tenure of the swap, notional and amortization schedule, administrative costs, Capital charge and transaction handling charges.

## An illustration of how the product works

User's underlying exposure: SOFR + 100 bps
User pays after swap: 2.00 \%
Coupon settlement frequency: Monthly

Tenure of swap: 1 yr
Amortization: As per schedule given below

| Start Date | End Date | Applicable USD Notional | USD Amortization on End date | Fixed USD coupon |
| ---: | ---: | ---: | ---: | ---: |
| 10-Jan-17 | 10-Feb-17 | $10,000,000.00$ | $833,333.33$ | $17,222.22$ |
| 10-Feb-17 | 10-Mar-17 | $9,166,666.67$ | $833,333.33$ | $14,259.26$ |
| 10-Mar-17 | 10-Apr-17 | $8,333,333.33$ | $833,333.33$ | $14,351.85$ |
| 10-Apr-17 | 10-May-17 | $7,500,000.00$ | $833,333.33$ | $12,500.00$ |
| 10-May-17 | 10-Jun-17 | $6,666,666.67$ | $833,333.33$ | $11,481.48$ |
| 10-Jun-17 | 10-Jul-17 | $5,833,333.33$ | $833,333.33$ | $9,722.22$ |
| 10-Jul-17 | 10-Aug-17 | $5,000,000.00$ | $833,333.33$ | $8,611.11$ |
| 10-Aug-17 | 10-Sep-17 | $4,166,666.67$ | $833,333.33$ | $7,175.93$ |
| 10-Sep-17 | 10-Oct-17 | $3,333,333.33$ | $833,333.33$ | $5,555.56$ |
| 10-Oct-17 | 10-Nov-17 | $2,500,000.00$ | $833,333.33$ | $4,305.56$ |
| 10-Nov-17 | 10-Dec-17 | $1,666,666.67$ | $833,333.33$ | $2,777.78$ |
| 10-Dec-17 | 10-Jan-18 | $833,333.33$ | $833,333.33$ | $1,435.19$ |

By entering into this product, the user pays a fixed rate of $2 \%$ p.a. and mitigates the interest rate risk arising out of floating rate benchmark. On each swap settlement date, both users exchange the cashflows as per the swap agreement.

## Pay-off profile:



## Impact Analysis

| SOFR | Impact on Swap | Underlying Cashflow | Total |
| ---: | ---: | ---: | ---: |
| $-1 \%$ | $(109,398)$ | - | $(109,398)$ |
| $0 \%$ | $(54,699)$ | $(54,699)$ | $(109,398)$ |


| $0.50 \%$ | $(27,350)$ | $(82,049)$ | $(109,398)$ |
| ---: | ---: | ---: | ---: |
| $1.00 \%$ | - | $(109,398)$ | $(109,398)$ |
| $1.50 \%$ | 27,350 | $(136,748)$ | $(109,398)$ |
| $2.00 \%$ | 54,699 | $(164,097)$ | $(109,398)$ |
| $3.00 \%$ | 109,398 | $(218,796)$ | $(109,398)$ |
| $4.00 \%$ | 164,097 | $(273,495)$ | $(109,398)$ |
| $5.00 \%$ | 218,796 | $(328,194)$ | $(109,398)$ |

Note: In the above table, negative sign indicates cash outflow. Here, we can see that irrespective of SOFR rate throughout the tenor of the swap, total payable by user is constant

## Benefits

This product allows users to switch between floating rate and fixed rate liability and actively manage its interest rate risk.

## Risks

(1) Interest rate not moving as anticipated by the user
(2) Basis risk
(3) Liquidity risk
(4) Bid-offer spreads in case of unwind

The terms and conditions applicable for booking/termination will be guided by deal term sheet/sanction letter/ISDA document

