

## European Call Spread Option

**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 option structure consists of two call options which provides limited protection to the user as compared to plain vanilla call option at a reduced cost. This structure uses two call options, one buy call (at lower strike price) and one sell call (at higher strike price) for the same expiry date/delivery date and same notional. Since the user is selling a call option apart from buying plain vanilla call option, it reduces overall cost thereby works as cost reduction strategy. The user will pay net premium which is difference between Buy Call (payable) and Sell Call (receivable). This derivative product can be used to hedge FCY payables.

### Illustration:

For a payable underlying in USD where INR is domestic currency, user buys USD call spread option

The underlying exposure for this product is USD payables. User is exposed to risk of INR depreciation against USD resulting in higher INR cost. The call spread structure provides protection starting from the buy call strike till sell call strike. Once USDINR rate goes above the sell call strike, the structure does not provide any incremental hedge. In other words, maximum hedge provided by the structure will be difference of two strike price and user is at risk of incremental loss if spot moves above sell call strike.

### Building Blocks:

The building blocks of this option are as below:

- a. Spot FX rate,
- b. Forward FX rates
- c. Time to expiry and
- d. Implied volatility.

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

The option cost consists of market cost which is determined through a financial model taking above building blocks as input parameters and the price is dependent on Bid/Offer spread of the spot rate, forward rate, implied volatility; along with administrative costs and transaction handling charges.

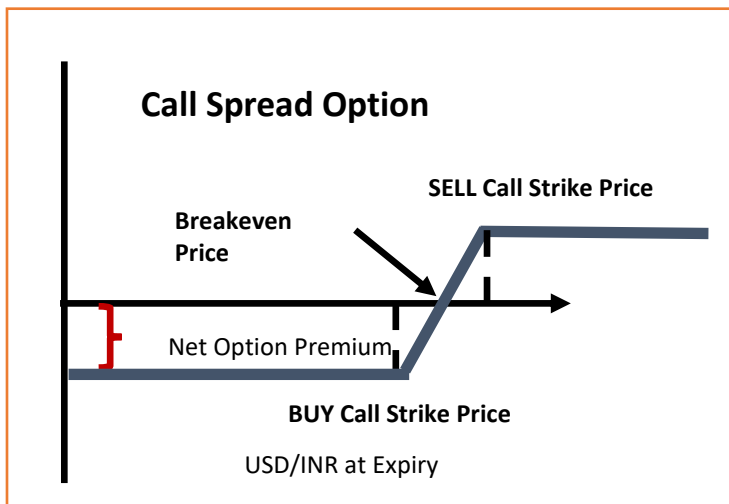
### **An illustration of how the product works**

User buys USD Call/ INR Put at lower strike price for agreed expiry day/delivery day  
 User sells USD Call/ INR Put at higher strike price for agreed expiry day/delivery day

On expiry day, if the USD/INR spot rate is –

- (1) Below BUY Call strike price, User buys USD at market spot rate
- (2) Above SELL Call strike price, User buys USD at market spot rate less difference between BUY Call & SELL Call strikes
- (3) Between Buy Call strike and Sell Call strike, User will buy USD at BUY Call strike

### Pay-off profile:



### Impact Analysis

Option: Buy Call Spread  
 Spot at the time of deal: 74  
 Buy Call Strike Price: 75  
 Sell Call Strike Price: 78  
 Net Option Premium: 1

Spot at Expiry	Buy price if Unhedged	Net Premium	Option Payoff net of Premium	Net Buying Price
73	73	-1	-1	74
74	74	-1	-1	75
75	75	-1	-1	76
76	76	-1	0	76
77	77	-1	1	76
78	78	-1	2	76
79	79	-1	2	77

## **Benefits**

Under this transaction User purchases an option structure that entitles it a right but no obligation to buy USD against INR. If INR depreciates, user payable is protected at the Buy call strike price limited to the difference between the two strikes of the call options minus net premium cost. If INR appreciates, user benefits from INR appreciation.

## **Risks**

- (1) Option expiring without getting exercised, effectively increases cost compared to unhedged transaction on account of option premium paid
- (2) Liquidity risk
- (3) Bid-offer spreads in case of unwind
- (4) Limited participation. Maximum gain from the structure will be if spot on the maturity is above sell call strike price

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