

# PRODUCT DISCLOSURE DOCUMENT

## Purpose

The purpose of this document is to provide you with key information about various products offered by Crédit Agricole Corporate and Investment Bank (CACIB). CACIB is providing you with this PDS, so that you receive adequate information about Barrier Options. It will help you understand their features, risks, benefits, and illustration of how the product works and assist you in making an informed decision about entering into a Barrier Option and also facilitate comparison with other products. Please read this PDS in full, before deciding to enter into a Barrier Option.

A bought call (put) option with a barrier, helps the buyer of the option in hedging the risk of foreign currency payables /(receivables) against movements in the exchange rate beyond the strike rate of the bought call (put) option, provided the option knocks-in/ does not knock-out.

The barrier helps reduce the cost of the option, as compared to the purchase of a vanilla option.

## PRODUCT

<b>Name</b>	FX Barrier Option
<b>Identifier</b>	Generic PDS – FX Barrier Options
<b>Manufacturer</b>	Crédit Agricole CIB (Party A)
<b>Contacting the manufacturer</b>	<a href="mailto:ind-fxsales@ca-cib.com">ind-fxsales@ca-cib.com</a> Call +91 22 6638 1804 for more information

## WHAT IS THIS PRODUCT?

**Type** An "over the counter" (OTC) derivative contract on foreign exchange rate.

**Objectives** To express a view on the future behavior of the underlying foreign exchange rate.

Barrier options are (call or put) options with a barrier condition. The barrier condition can be a

- **Knock-in ("KI")** The spot level at which the option becomes alive
- **Knock-out ("KO")** – The spot level at which the option becomes dead.

The barrier condition may be triggered at expiry (European barrier), or anytime from the trade start time until expiry (American barrier), or only during a specified time period (Window), or during specific time intervals (Bermudan).

Further, a single option can have multiple barriers. For example, an option that has two KIs, is called a Double Knock-in ("DKI"). Similarly, an option with two KOs, is called a Double Knock-out ("DKO"). The option may also be a combination of a KI and a KO. This is called a Knock-in and Knock-out (KIKO).

The Option value would be determined by the prevailing spot rate, strike rate, forward rates, barrier strike, type of barrier, volatility, tenor and interest rate differentials.

## Illustration for a USD/INR Call Option with an American Knock-in (AKI)

### Key dates and values (\*)

All determinations are made by Calculation Agent. All dates may be subject to adjustment for non-business days and market disruption events, if applicable.

- Strike: Buy a USD call /INR put at <75>.00
- Knock-in Barrier (American): <78>.00
- Spot reference: <74.37>
- Forward: <1.77>
- Tenor: <6> months
- Notional: USD <1> Million
- Upfront Premium: INR <1.42> /USD

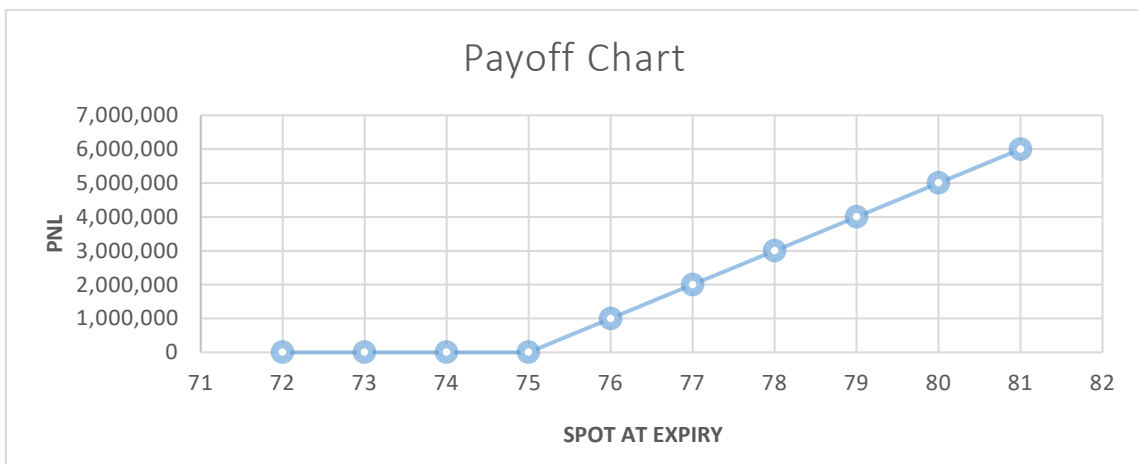
Please note that all products are also subject to regulatory risks (not limited to change in regulation, product discontinuation by the regulator, etc.)

## PAYOFF:

On the Maturity Date Party, A pays the Party B the Final Base Currency Notional Amount and receives the Final Counter Currency Notional Amount (such amounts being equivalent amounts converted at the Final Predetermined FX Rate).

### Payoff of the structure illustrated above, if $<78>$ is observed at any point of time till expiry(excludes premium)

- **If the barrier level of  $<78>.00$  is seen** during the life of the option, the option will become alive. Thus, the option pay-off at expiry will be that of a vanilla option:
- **If a USD/INR spot rate is below  $<75>.00$  at expiry**, for example if a USD/INR spot rate at expiry is  $<74.50>$ , the buyer of the option will not exercise the option and may buy the USD/INR at the prevailing market rate of  $<74.50>$ .
- **If a USD/INR spot rate is above  $<75>.00$  at expiry**, for example a USD/INR spot rate at expiry is  $<76.75>$ , the buyer of the option will exercise the option and will buy the USD/INR at  $<75>.00$ .
- **If the barrier level of  $<78>.00$  is never seen during** life of the option, the option will never come into existence.
- The contract holder can buy the USD/INR at the prevailing market rate.



## WHAT ARE THE RISKS AND WHAT COULD I GET IN RETURN?

Risks	Benefits
Premium is payable for the bought option, irrespective of the spot at expiry and the whether the barrier condition is met.	Lower cost than a vanilla call of the same strike/maturity.
In case the barrier is a Knock-in barrier, then the buyer will have protection against adverse movements in the underlying, only if the option gets Knocked-in. For example, in the above illustration, if the KI barrier level of $<78>.00$ is never seen till expiry, there is no hedge for the buyer of the option.	In case of a bought barrier option with a Knock-in, if the barrier condition is met, the option will provide a protection like a vanilla option.
In case the barrier is a Knock-out barrier, then the buyer of the option has no protection, once the barrier is touched.	In case of a bought barrier option with a Knock-out, if the barrier condition is never met, the option will provide protection like a vanilla option.

## Termination

If you wish to terminate the Barrier Option before the expiry date, the Barrier Option will be terminated at the prevailing market rates. The termination value may either be positive (gain) or negative (loss).

The termination value would be a function of the prevailing spot rate, strike rate, barrier strike, type of barrier, forward rates, volatility, residual tenor, discount factors, credit/funding charges and interest rate differentials for the residual tenor. Any illiquidity in the market for the specific currency or tenor or notional could lead to a wider bid-offer spread, which would adversely affect the market value of the outstanding derivative contract.

Currency markets are highly volatile and the prices of the underlying currencies can fluctuate rapidly and over wide ranges and may reflect unforeseen events or changes in conditions. Thus, fluctuations in the underlying currencies will affect the benefit or cost to you when you terminate a Barrier Option.

The risks mentioned in this document are not exhaustive. There may be other risks that are relevant to you when entering into a Barrier Option.

## Costs and fees

The type of costs shown here are the cumulative costs of the product itself, for the recommended holding period.

### Costs over time

The person selling you or advising you about this product may charge you other costs. If so, this person will provide you with information about these costs, and show you the impact that all costs will have on your investment over time.

### Composition of costs

#### Transaction Costs

Financial instruments may involve transaction costs, which are incurred as a result of accessing the wider market to initiate, terminate, increase or decrease a position in the instrument. The transaction costs depend on the below factors:

- Market Risk
- Credit Risk
- Capital Required
- Financial Instrument
- Liquidity/ Standardization of the Financial Instrument in the market
- Transaction size and tenor
- Effort, Cost and Risk to the market maker.

#### One-Off Costs

These are one-off charges/ costs paid, typically, at the beginning or at the end of the financial instrument's life cycle.

#### Other Ongoing Costs

The impact of the costs that we take for managing your financial instruments.

## OTHER RELEVANT INFORMATION

The information contained in this Product Disclosure Document does not constitute a recommendation to engage in this product and is no substitute for individual consultation with an advisor. You can obtain further information about this product from your salesperson.

## Various risks associated in the transaction:

The Counterparty acknowledges that before entering into derivative transactions, it understands the underlying risk of the above mentioned transaction. The Counterparty acknowledges that derivative transactions are in general exposed to various types of risk, including but not restricted to the following:

1. **Credit risk:** the risk of loss due to Counterparty's failure to perform on an obligation to the institution. Credit risk in derivative products comes in two forms:

**Pre-settlement risk:** the risk of loss due to a Counterparty defaulting on a contract during the life of a transaction. The level of exposure varies throughout the life of the contract and the extent of losses will only be known at the time of default.

**Settlement risk:** the risk of loss due to the Counterparty's failure to perform on its obligation after an institution has performed on its obligation under a transaction on the settlement date. Settlement risk frequently arises in international transactions because of time zone differences. This risk is only present in transactions that do not involve delivery versus payment and generally exists for a very short time (less than 24 hours).

2. **Market risk:** the risk of loss due to adverse changes in the market value (the price) of an instrument or portfolio of instruments. Such exposure occurs with respect to derivative instruments when changes occur in market factors such as underlying interest rates, exchange rates, equity prices, and commodity prices or in the volatility of these factors.

**Liquidity risk:** the risk of loss due to failure of an institution to meet its funding requirements or to execute a transaction at a reasonable price. Institutions involved in derivatives activity face two types of liquidity risk: market liquidity risk and funding liquidity risk.

**Market liquidity risk:** the risk that an institution may not be able to exit or offset positions quickly, and in sufficient quantities, at a reasonable price. This inability may be due to inadequate market depth in certain product (e.g. exotic derivatives, long-dated option), market disruption, or inability of the bank to access the market (e.g. credit down-grading of the institution or of a major counterparty).

3. **Funding liquidity risk:** the potential inability of the institution to meet funding requirements, because of cash flow mismatches, at a reasonable cost. Such funding requirements may arise from cash flow mismatches in swap books, exercise of options, and the implementation of dynamic hedging strategies.
4. **Operational risk:** the risk of loss occurring as a result of inadequate systems and control, deficiencies in information systems, human error, or management failure. Derivatives activities can pose challenging operational risk issues because of the complexity of certain products and their continual evolution.
5. **Legal risk:** the risk of loss arising from contracts which are not legally enforceable (e.g. the counterparty does not have the power or authority to enter into a particular type of derivatives transaction) or documented correctly.
6. **Regulatory risk:** Regulatory risk is the risk of loss arising from failure to comply with regulatory or legal requirements.