Product & Risk Disclosure – Bond Forward

Bond Forward

Party A – Deutsche Bank AG, Mumbai Branch; Party B - User

Product Features

- A bond forward locks in a price for the purchase or sale of a bond on a future date
- The forward price is calculated based on the spot yield of the bond and OIS rate for the tenor of the forward
- The forward premium is included in the forward price
- A bond forward transaction may be physically-settled or cash-settled and involves zero upfront payment

Benefits & Features

- A bond forward is highly customizable and can be executed for any tenor on any underlying bond, as long as forward tenor is less than bond residual maturity
- Ability to unwind transaction at any time
- Buy bond forward – Party B gets full protection against an increase in bond price; however, they do not get any participation in the downside
- Sell bond forward – Party B benefits if the bond price decreases

Building Blocks

- Underlying bond price
- INR OIS rate for the tenor of the forward

Primary Risks Factors of Buy (Sell) Bond Forward

- Decrease (Increase) in bond price
- Bid-offer spreads in case of unwind

Pay-off for Buy (Sell) Bond Forward

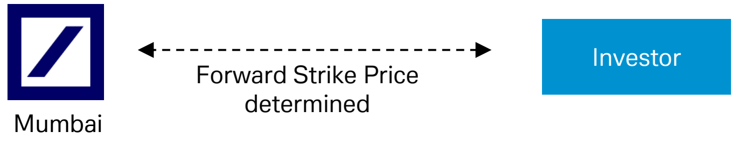
- <u>Favorable (unfavorable)</u>
  Underlying Bond Price on settlement date: 105
  Bond Forward Strike Price: 100
  Party A (B) pays:
  *(105-100) * Notional / 100*

- <u>Unfavorable (favorable)</u>
  Underlying Bond Price on settlement date: 95
  Bond Forward Strike Price: 100
  Party B (A) pays:
  *(100-95) * Notional / 100*

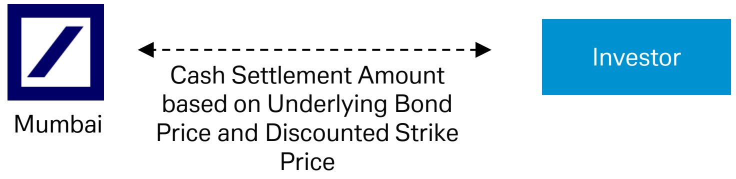
Flow Illustration

<u>On Trade Date</u>

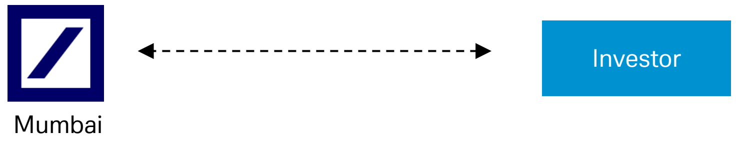
- Party B enters a forward contract to purchase the underlying bond at a pre-agreed forward price (Strike Price) at a future date



<u>Optional Early Termination (unwind)</u>



<u>Settlement at Bond forward maturity</u>



- Physically Settled – Delivery of bond at agreed Strike Price
- Cash Settled, settlement amount,
  - if Underlying Bond Price > Strike Price, Party A pays (Underlying Bond Price –Strike Price) * Notional / 100;
  - else, Party B pays (Strike Price –Underlying Bond Price) * Notional / 100

Bond Forward

Scenario Analysis

The MTM of the product is determined by (1) market price of the underlying bond; and (2) INR OIS curve for the tenor of this Transaction.

The net cashflow will depend on the assumption of Reference Bond price on the Settlement Date of the Bond Forward and the forward purchase price. In MTM analysis below we demonstrate the change in MTM (in INR) for a uniform and equal change in price for all underlying Reference Bonds of total notional INR 100 crores

Scenario	Change in price of underlying bond (INR)	Change in MTM (Buy)	Change in MTM (Sell)
1	90.00	-100,000,000	100,000,000
2	95.00	-50,000,000	50,000,000
3	100.00	0	0
4	105.00	50,000,000	-50,000,000
5	110.00	100,000,000	-100,000,000

As demonstrated in the scenario analysis above, the value of the Transaction at any time before Termination is dependent on the price of the underlying Reference Bond. If party B has bought a bond forward, the mark-to-market (MTM) is positive if the discounted Forward Purchase Price is lower than the Reference Bond Price and negative if otherwise.

In addition, as mentioned in the "Building Blocks" the Party B is exposed to MTM changes due to changes in the INR OIS rate for the tenor of the forward. For example, for a bond forward trade of notional INR 100 crores and tenor 5y, the Gain/Loss in INR for Party B for 1bps parallel shift in INR OIS curve is approximately INR 436,800.

Contract terms and conditions – Option to Unwind and Early unwind date

An amount equal to Party A's total costs or loss (which shall be a positive number) or gain (which shall be a negative number) in connection with terminating all payments and contingent payments that would otherwise have been made under this transaction in the period from but excluding the relevant Optional Termination Date up to and including the originally scheduled Termination date.
Party A's total costs or loss shall include, without limitation, any loss of bargain, cost of funding, or loss or cost incurred as a result of Party A terminating, liquidating, obtaining or re-establishing any hedge or related position.
Party A shall provide the Mark to Market value of the trade as and when desired by Party B
Party B has the option to unwind this trade as specified in the relevant confirmation and subject to unwind costs.

Costs and Fees

Transactions of this nature are executed at an all-inclusive price and there would not be any separate breakup and recovery of costs, fees and other charges. Breakup will however be provided as per the extant RBI guidelines. This doesn't include statutory charges/levies and same will be recovered separately as applicable.

Bond Forward Risks

Market Risk

Market Risk is the risk that the value of a Transaction will be adversely affected by fluctuations in the level or volatility of or correlation or relationship between one or more market prices, rates or indices or other market factors or by illiquidity in the market for the Transaction or in a related market. In particular leveraged Transactions will entail a higher degree of risk as the losses arising from a small market movement will be multiplied and you may be required to provide substantial margin at short notice to meet your obligations. Failure to meet such obligations may result in us having to liquidate your position at a loss for which you would be liable. You should also note that while we will seek to observe "stop loss" and "stop limit" orders, market conditions may prevent us from executing any "stop loss" or "stop limit" orders which may have been previously agreed.

Credit Risk

Credit Risk is the risk that we may, under certain circumstances, fail to perform our obligations to you when due.

Funding Risk

Funding Risk is the risk that, as a result of mismatches or delays in the timing of cash flows due from or to you under Transactions or related hedging, trading, collateral or other transactions, you will not have adequate cash available to fund current obligations.

Liquidity Risk

Liquidity Risk is the risk that due to prevailing market conditions it may not be possible to liquidate, nor to assess a fair value of your position. In addition, you should be aware that the operation of exchange rules or any power or system failure affecting electronic trading facilities may, in certain circumstances, impair or prevent us from liquidating or executing your Transactions, thus increasing the likelihood of loss..

Operational Risk

Operational Risk is the risk of loss to you arising from inadequacies in, or failures of, your internal procedures and controls for monitoring and quantifying the risks and contractual obligations associated with Transactions.

Currency Risk

Currency Risk The profit or loss from Transactions in foreign currencies will be affected by fluctuations in currency exchange rates where there is a need to convert from the currency denomination of the Transaction to another currency.

Disclaimer