

Complex Instruments

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Agenda

- Interest Rate Swaps
- Fx Forwards and Cross Currency Swaps
- MLDs
- Equity Linked Notes
- PTCs

Interest Rate Swaps

Mutual Funds and IRS

Sebi comes out with new guidelines on mutual fund investment in interest rate swap

dated: Jun 20, 2021, 10:26 PM IST

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Synopsis

Markets regulator Sebi on Friday put in place fresh guidelines for participation of mutual fund schemes in interest rate swap, a derivative product.



Markets regulator [Sebi](#) on Friday put in place fresh guidelines for participation of mutual fund schemes in [interest rate swap](#), a derivative product.

[Mutual funds](#) can enter into plain vanilla Interest Rate Swaps ([IRS](#)) for hedging purposes. The value of the notional principal in such cases must

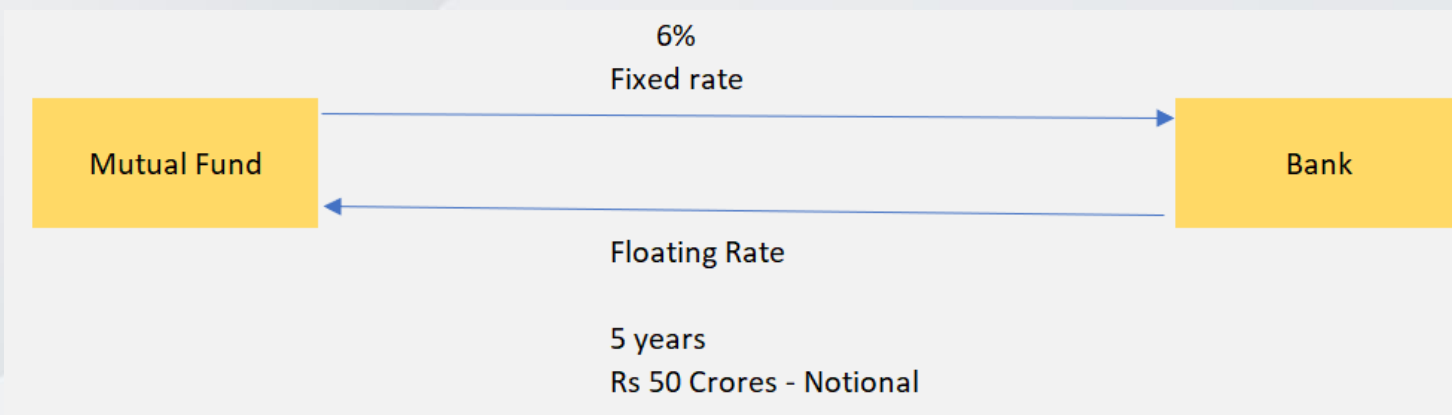
not exceed the value of respective existing assets being hedged by the scheme.

In case participation in IRS is through over the counter transactions, the counterparty has to be an entity recognized as a market maker by [RBI](#) and exposure to a [single counterparty](#) in such transactions should not exceed 10 per cent of the net assets of the scheme, Sebi said in a circular.

What is an Interest Rate Swap (IRS)

Illustrative Example

In a 5-year IRS contract between a mutual fund and a bank, the mutual fund pays a fixed rate of 6% and the bank pays a floating rate of interest



Question – assuming the mutual fund executes the above transaction at 10 AM on a day and later that day, interest rates go up, is that good news or bad news for the mutual fund?

Interest Rate Swap Market in India

As on Dec 12, 2022 4:37:25 PM



The Clearing Corporation of India Ltd.



INTEREST RATE SWAPS & FORWARD RATE AGREEMENT

I R S - FIXED FLOAT

IRS - BASIS SWAPS

FWD. RATE AGREEMENT

Archival

Refresh

MIBOR OIS

Tenor	Last Reported Rate of Prev day	Open	High	Low	Wt. Avg. Rate	Last Reported Rate of Current day	Last Reported Trade Time Stamp for the Current day		Volume (Cr.)	No. of Trades
1M		6.32000	6.32000	6.32000	6.32000	6.32000	13:15:24	↔	1000.00	3
2M	6.37000	6.37000	6.37000	6.36000	6.36160	6.36000	13:09:25	↔	1250.00	8
3M	6.42000	6.45000	6.45000	6.43000	6.44500	6.43000	13:13:43	↔	1400.00	8
6M	6.59500	6.62500	6.64000	6.60500	6.63393	6.61000	15:23:55	↑	4245.00	8
9M	6.67000	6.67000	6.69000	6.65500	6.67132	6.65500	15:29:45	↓	475.00	8
1Y	6.67750	6.70000	6.71500	6.67000	6.69780	6.67250	16:03:26	↓	5010.00	44
2Y	6.38500	6.40500	6.40750	6.35000	6.38075	6.35000	16:32:32	↔	2735.00	66
3Y	6.29000	6.30000	6.30000	6.23500	6.26486	6.25000	16:33:43	↑	530.00	8
4Y	6.28000	6.25000	6.25000	6.24000	6.24324	6.24000	16:29:17	↓	185.00	6
5Y	6.28500	6.30250	6.32250	6.23500	6.26969	6.25000	16:33:19	↔	1870.00	80
7Y	6.33000	6.34000	6.34000	6.32000	6.32800	6.32000	13:44:11	↔	25.00	4
10Y	6.34000	6.32000	6.32000	6.32000	6.32000	6.32000	15:02:46	↓	20.00	1

Fund Administration
Leaders Program



Interest Rate Swaps – Real life application in managing financial risk


The Economic Times daily newspaper is available online now. [Read Today's Paper](#)

HDFC Ltd seeks to hedge fixed rate debt via derivative deals

Das, ET Bureau • Last Updated: Oct 19, 2022, 06:14 AM IST

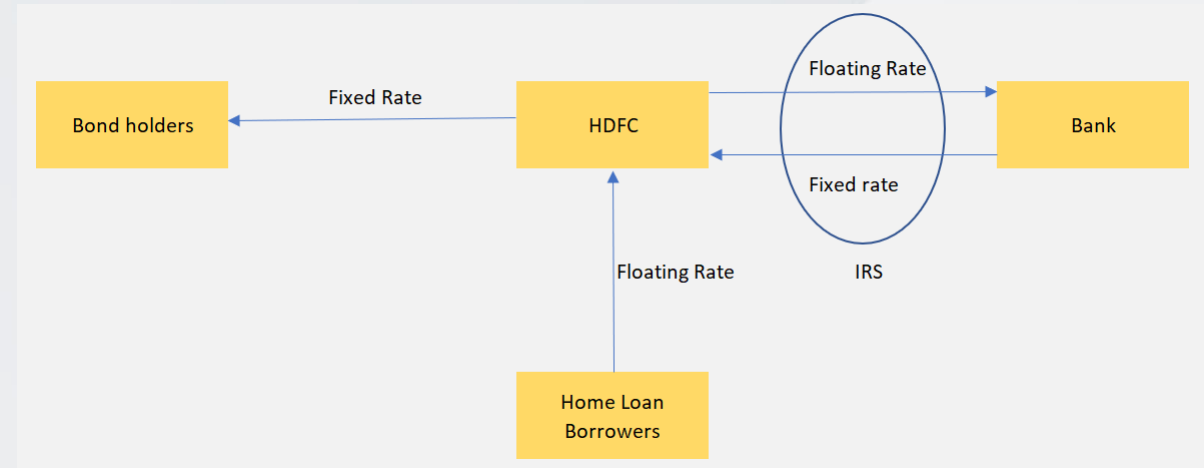
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Synopsis
HDFC enters into swap contracts for various durations on which it receives (buys) the applicable overnight index swap rate or government securities yield. While it pays the fixed coupons to its own bondholders, it covers the same through such a mechanism, effectively paying overnight rates on an ongoing basis.

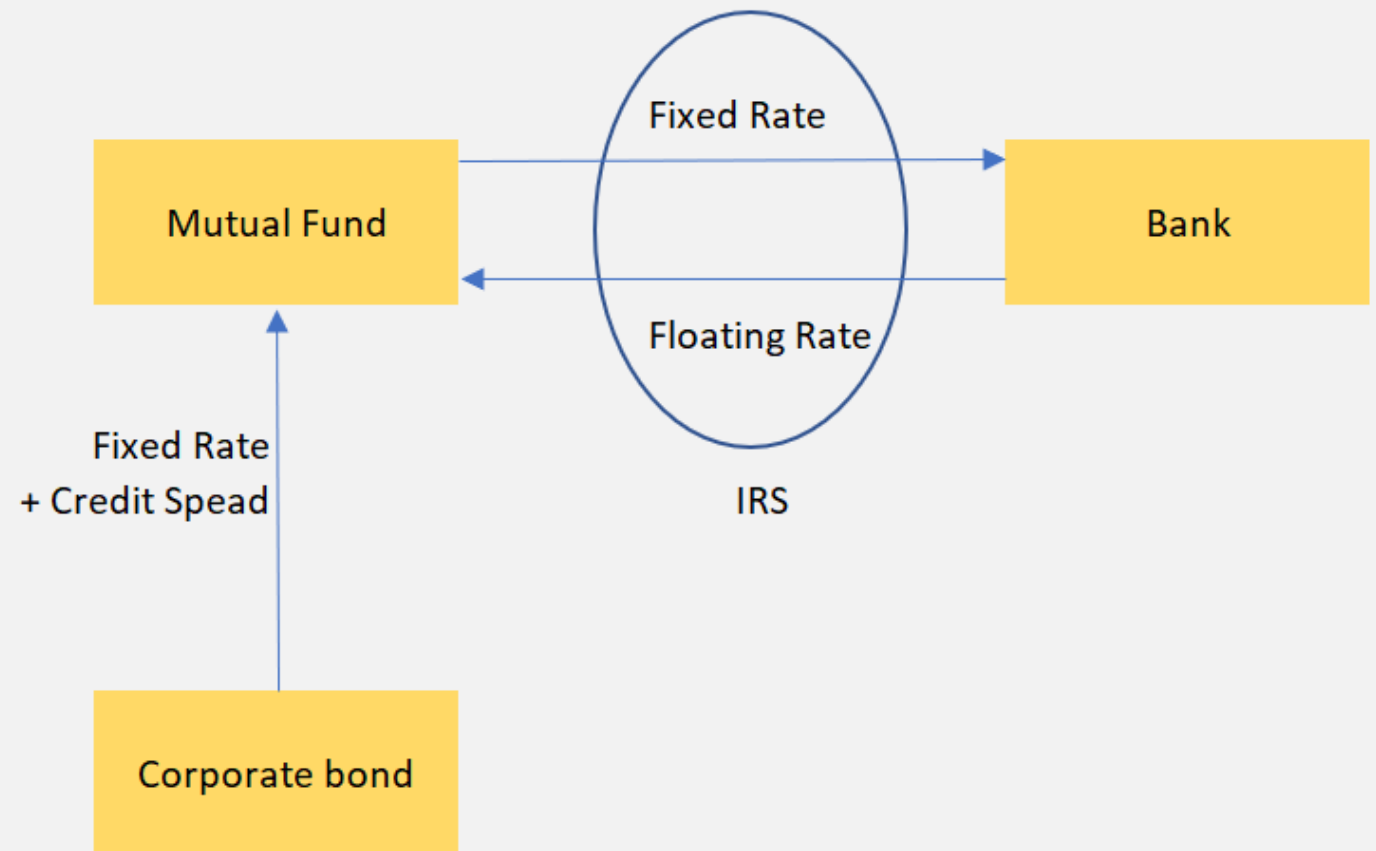


Housing Development Finance Corp is seeking to hedge its fixed-rate borrowings in the interest rate [derivatives markets](#), amid an uncertain interest rate trajectory, said people familiar with the matter.

While the country's largest mortgage financier raises money largely at fixed rates, its assets are mostly on floating rates, requiring such bets.



Interest Rate Swaps – Mutual funds and hedging



Interest Rate Swaps – Mutual Funds

Source: [PGIM Mutual Fund](#)

Example: Interest Rate Swap (IRS)

- Suppose the Scheme has a portion of its portfolio in cash. The Fund Manager has a view that the interest rate scenario is soft and call rates are unlikely to spurt over the next three months. The fund manager would therefore prefer to receive a higher rate of return on his cash, which he is lending in the overnight call market. In other words he would like to move to a 91 Day fixed interest rate from overnight floating rate

- In the above example

Say Notional Amount: Rs. 5 crores

Benchmark: NSE MIBOR

Tenor: 91 days

Fixed Rate: 6.25% At the end of 91 days

The Scheme Pays: compounded call rates for 91 days, which averages to say 5.90%

The Scheme receives fixed rate at 6.25% for 91 days.

At the end of 91 days the transaction will be settled as under:-

Fund receive Fixed rate @ 6.25% for 91 days	Rs. 7,79,110
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Fund pays floating rate @ 5.90% for 91 days amounting to	Rs. 7,35,479
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Net Receivable/Settlement Value	Rs. 43,631
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Fx Forwards and Cross Currency Swaps

Indian funds that invest in foreign securities and funds that draw foreign investors into India, both need to manage currency risk

Hedging instruments

- Fx Forwards
- Cross Currency Swaps

Get International Access!!

With a size of USD 30 trillion, its market capitalization is greater than that of the next 6 countries combined. Without the 'home bias' of Indian investors, US market should be the most logical choice for any investor looking to invest in equities

Why invest in SBI International Access – US Equity Fund?

An open-ended fund of funds scheme investing in mutual fund scheme/ETFs that invest in US markets

Management Fees. The rates specified are the actual expenses charged as at the end of the month. The above ratio also includes, proportionate charge in respect sales beyond T-30 cities subject to maximum of 30 bps on daily net assets, wherever applicable.

MINIMUM INVESTMENT/ MULTIPLES FOR NEW INVESTORS
₹ 5,000/1

MINIMUM INVESTMENT FOR SIP
₹ 500/1

ADDITIONAL INVESTMENT/ MULTIPLES FOR EXISTING INVESTORS
₹ 1000/1

MINIMUM APPLICATION AMOUNT
₹5,000 and in multiples of Re.1 thereafter

LOAD STRUCTURE

Entry Load Nil
EXIT LOAD (for each purchase of Units)

DANAHER CORP	2.99	Real Estate	3.03 / 1.65	N/A	5.24
SERVICENOW INC	2.59	Materials	1.38 / 1.54		
MSCI INC	2.13	Others	1.26 / 2.01		
		Cash & Cash Equivalents	1.29 / 0.00		

Franklin U.S. Opportunities Fund Russell 3000® Growth Index

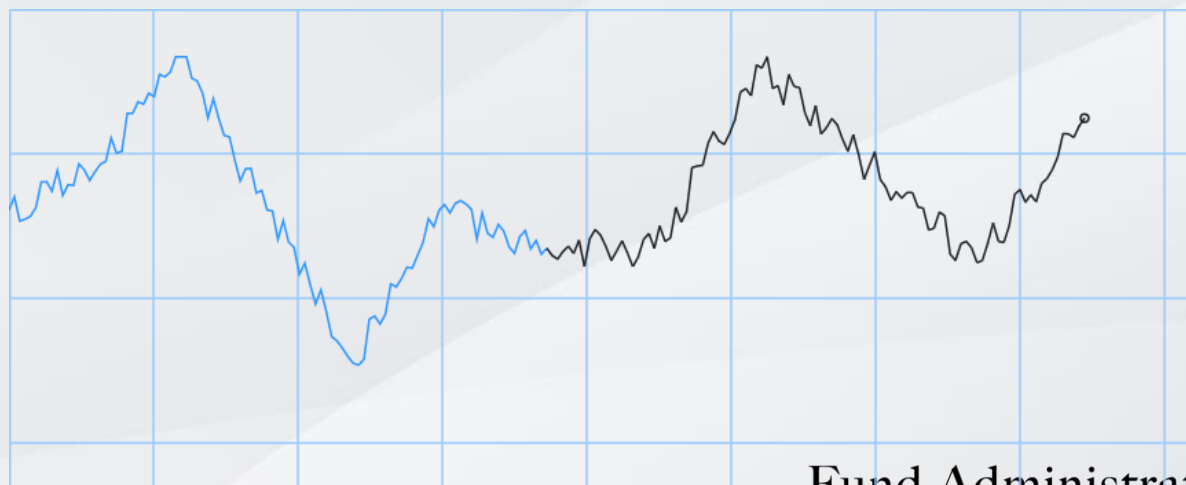
Disclaimer:
Subscriptions to shares of the Luxembourg-domiciled SICAV Franklin Templeton Investment Funds ("the Fund") can only be made on the basis of the current prospectus, and, where available, the relevant Key Investor Information Document, accompanied by the latest available audited annual report and the latest semi-annual report if published thereafter. The value of shares in the Fund and income received from it can go down as well as up, and investors may not get back the full amount invested. Past performance is not an indicator or a guarantee of future performance. **Currency fluctuations may affect the value of overseas investments. When investing in a fund denominated in a foreign currency, your performance may also be affected by currency fluctuations.** An investment in the Fund entails risks which are described in the Fund's prospectus and in the relevant Key Investor Information Document. In emerging markets, the risks can be greater than in developed markets. Investments in derivative instruments entail specific risks more fully described in the Fund's prospectus or in the relevant Key Investor Information Document. No shares of the Fund may be directly or indirectly offered or sold to residents of the United States of America. Only Class A shares can be offered by way of a public offering in Belgium and potential investors must receive confirmation of their availability from their local Franklin Templeton Investments representative or a financial services

Fx Forwards

By committing to a forward, you get a fixed EURUSD rate. The actual exchange from EUR to USD will take place three months from now, but you know your rate immediately. Any future changes in the EURUSD rate thereby will not affect your payment.

The alternative to using a forward is to wait until you need the USD and then perform the exchange from EUR using the spot rate. The future spot rate is unknown, so in this scenario you do not know what amount in EUR you will pay for the exchange.

Source: [Nordea](#)



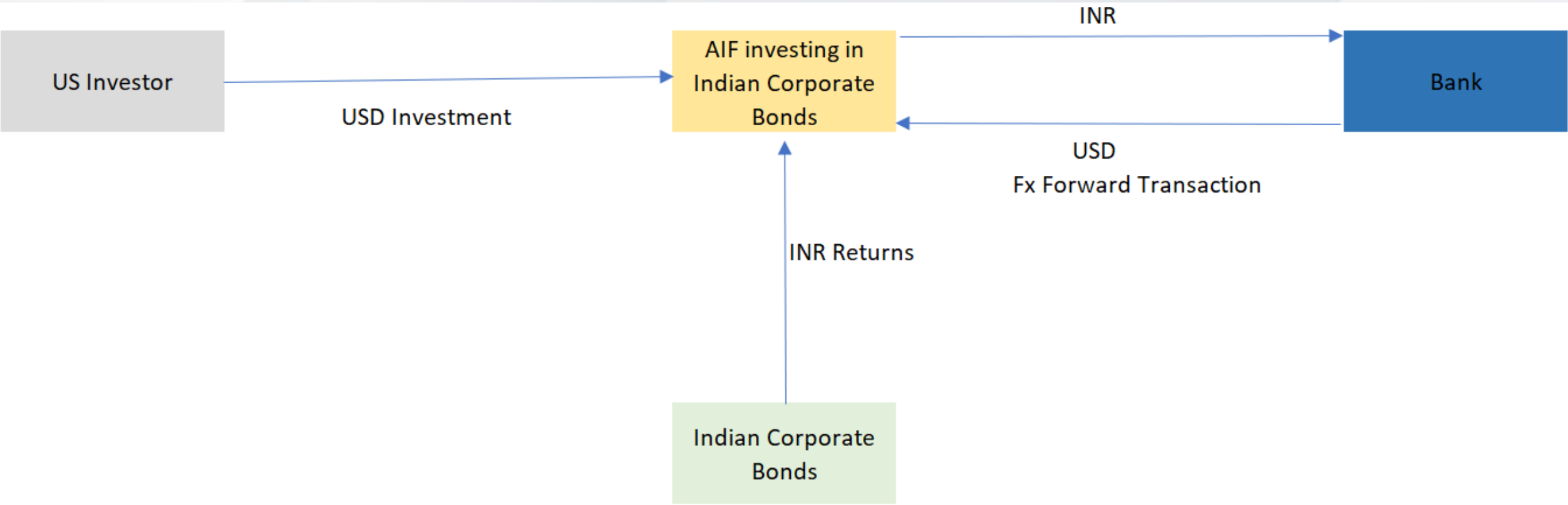
Fx Forwards

As discussed, fx forwards help lock into an exchange rate in advance.

Assuming USD/INR today trades at 82.00, the below table from FIMMDA tells us that one can lock into a rate of 82.8313 on a 6 months forward

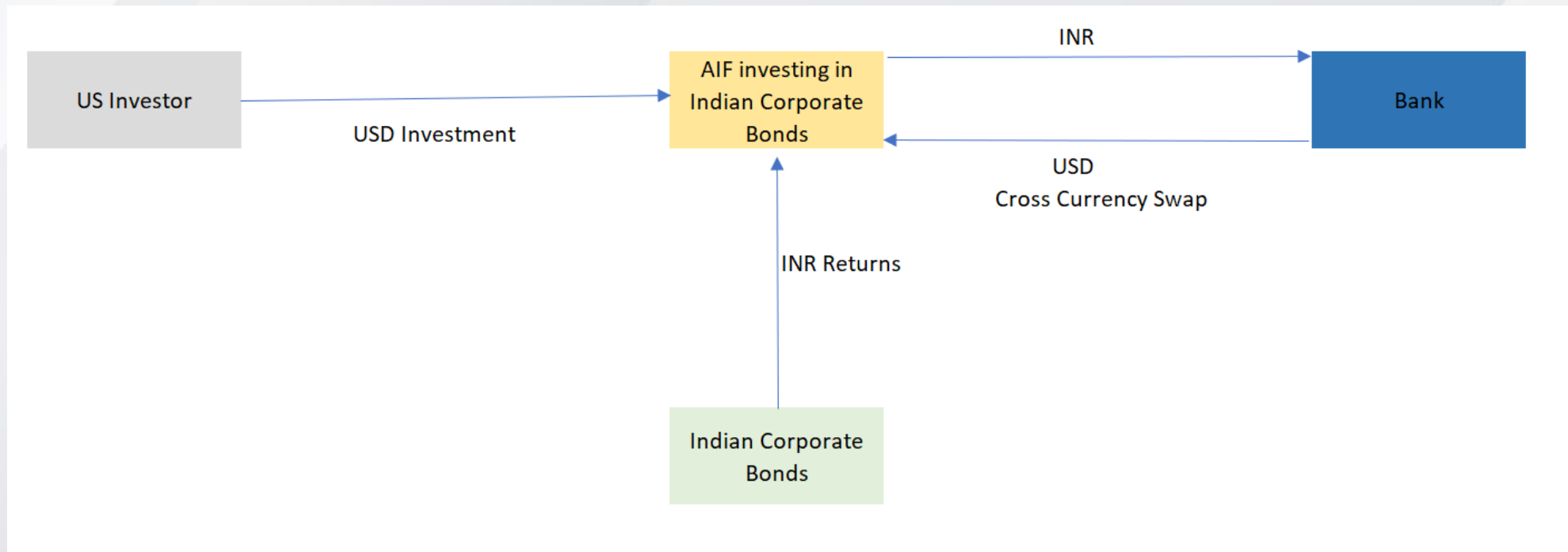
Date	Time	Tenor	Settlement Date	USD/INR Premia(%)	USD/INR Premia(Rs.)	Comments
02 Dec 2022	4:45:00 PM	O/N	05 Dec 2022	1.9668	0.0131	
02 Dec 2022	4:45:00 PM	1M	06 Jan 2023	1.9112	0.1318	
02 Dec 2022	4:45:00 PM	2M	06 Feb 2023	1.916	0.2642	
02 Dec 2022	4:45:00 PM	3M	06 Mar 2023	1.9111	0.3826	
02 Dec 2022	4:45:00 PM	4M	06 Apr 2023	2.131	0.574	
02 Dec 2022	4:45:00 PM	5M	08 May 2023	2.1128	0.719	
02 Dec 2022	4:45:00 PM	6M	06 Jun 2023	2.0541	0.8313	
02 Dec 2022	4:45:00 PM	7M	06 Jul 2023	1.9889	0.9379	
02 Dec 2022	4:45:00 PM	8M	07 Aug 2023	1.9892	1.0796	
02 Dec 2022	4:45:00 PM	9M	06 Sep 2023	1.9823	1.2082	

Fx Forwards



A cross-currency swap could also be used to hedge fx exposure

Ref: Spreadsheet to be used in class



Market Linked Debentures

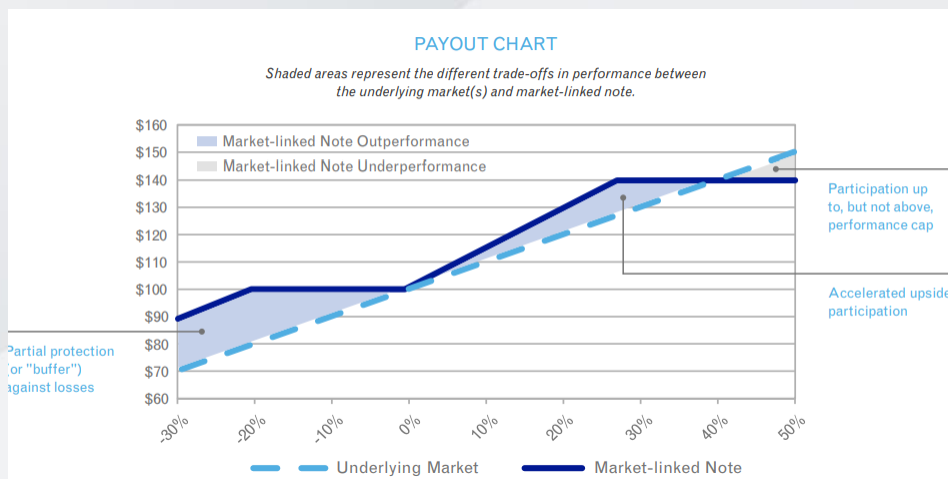
- Illustrative example of structuring and valuation of a simple MCD

Market Linked Debentures - Illustrative Example

Face Value	Rs. 18000
Maturity	21-12-2023
Principal	Fully Protected
Returns at Maturity	If NIFTY < 18000, then Zero
	If NIFTY > 18000 then 50% * (NIFTY Close as at 21/12/2023 minus 18,000)

Equity Linked Notes

Most equity linked notes offer investors the opportunity to participate in some upside linked to equity markets while offering downside protection. The usual trade off is between how much participation an investor gives up versus how much downside protection is offered.



SAMPLE TERMS*		SAMPLE RETURN*	
Maturity	2 - 4 years	Underlying Market	Market-linked Note
Underlying Market	Global Equity Basket	50%	40%
Downside Protection*	20% buffer at maturity	30%	40%
Participation	150% upside participation in underlying market (subject to maximum return cap)	10%	15%
Return Cap	Maximum return cap of 40%	0%	0%
		-10%	0%
		-30%	-10%
		-40%	-20%

IRR Driven PTCs

- Linked to a portfolio of real estate loans
- 8 % Returns

(Reference document to review in class: cashflows of an instrument such as this)

PARINEE REALTORS PRIVATE LIMITED

ACTIVE

ISIN **INE542R07030**

8% SECURED RATED LISTED REDEEMABLE NON CONVERTIBLE DEBENURES. DATE OF MATURITY 31/03/2024

Essentials

Coupon Rate (Returns)

8%

Rating

B- Infomerics Va...

Interest Payment Frequency

MONTHLY

Twelve Times A Year

Maturity after

1 years 3 months

Mar 31, 2024

Face Value

₹10,00,000

Coupon Type

Compounding

MONTHLY

Issue Details

Issue Size

89.30 Crores

Issue Price

₹10,00,000

Security class

Debentures

Listing details

BSE

Debenture Trustee

Vistra ITCL (India)...

Issue

Private

Issuer Details

PARINEE REALTORS PRIVATE LIMITED

Business Sector

Utilities

Issuer Nature type

Other

Issuer Ownership

Non PSU

Thank You

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