

## Contact

### NSE - Corporate Office

National Stock Exchange of India Limited  
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Tel No: (022) 26598100 - 8114. Fax No: (022) 26598120.

### Branch Offices

#### MUMBAI

Western Regional Office:  
National Stock Exchange of India Ltd.,  
6th floor, Kohinoor City,  
Tower – 1, Commercial – II,  
Kiroli Road, Off. L. B. S. Marg, Kurla (W),  
Mumbai – 400 070.  
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#### CHENNAI

National Stock Exchange of India Ltd.,  
8th Floor, Arihant Nitco Park,  
No 90, Dr Radhakrishnan Salai,  
Mylapore, Chennai 600 004.  
Tel No : (044) 28479900 / 28479902-05.  
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#### HYDERABAD

National Stock Exchange of India Ltd.,  
8-2-594/A/1, Third Floor, Urmila Heights,  
Opp Rainbow Hospital,  
Road No 10, Banjara Hills,  
Hyderabad – 500034.  
Tel No : (040) 23357082 / 7083.  
Fax No : (040) 23357084.

#### AHMEDABAD

National Stock Exchange of India Ltd.,  
Office No. 304/305,  
GCP Business Centre,  
Opposite Memnagar Fire Station,  
Navrangpura,  
Ahmedabad - 380009.  
Tel No : (079) 49008610 / 49008611.  
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#### DELHI

National Stock Exchange of India Ltd.,  
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Parliament Street,  
New Delhi-110 001.  
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Fax No : (011) 23459291.

#### KOLKATA

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1st Floor, Park View Apartments,  
99, Rash Behari Avenue,  
Kolkata - 700 029.  
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Fax No : (033) 40400440.



NSE Mobile App

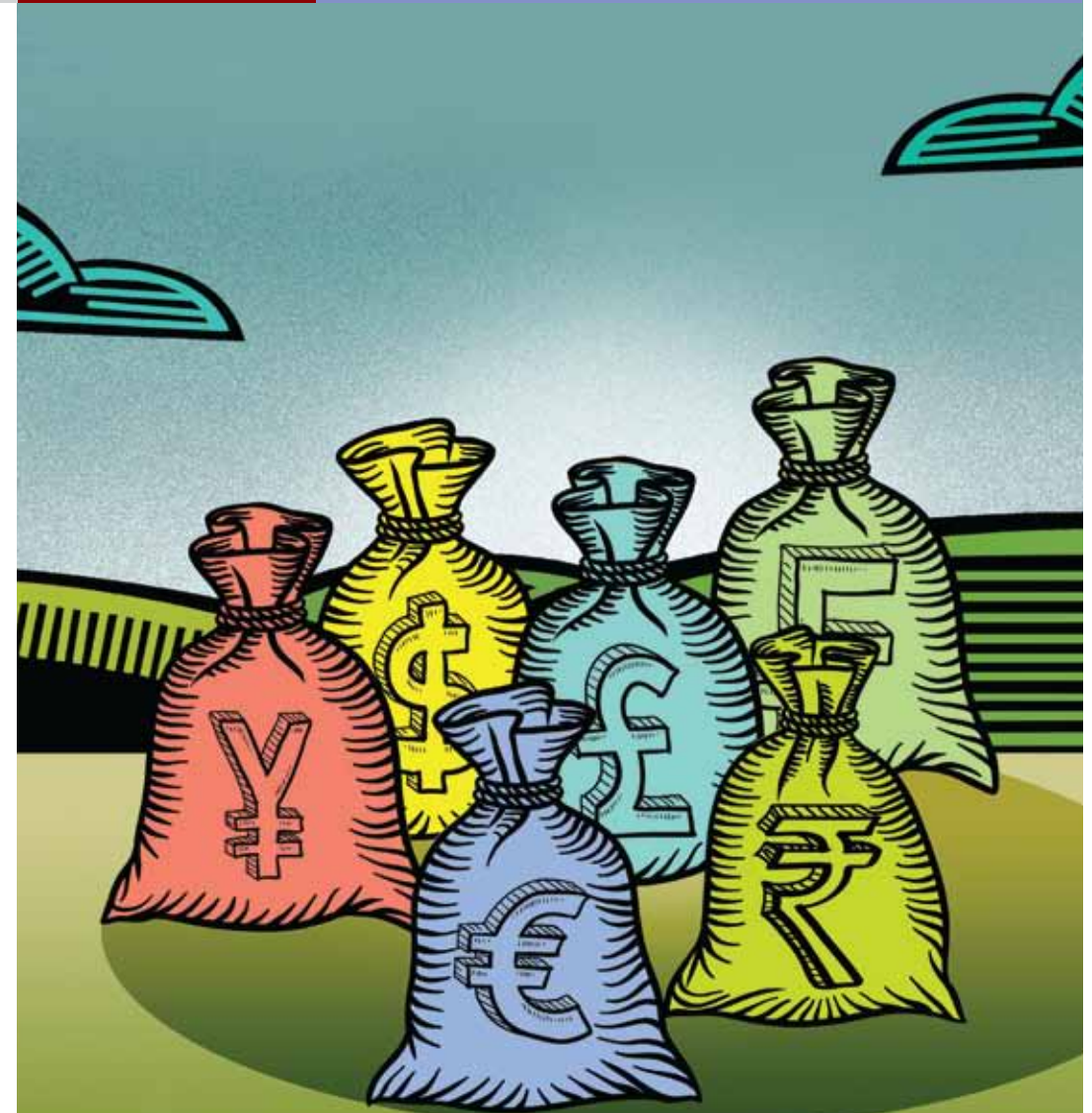


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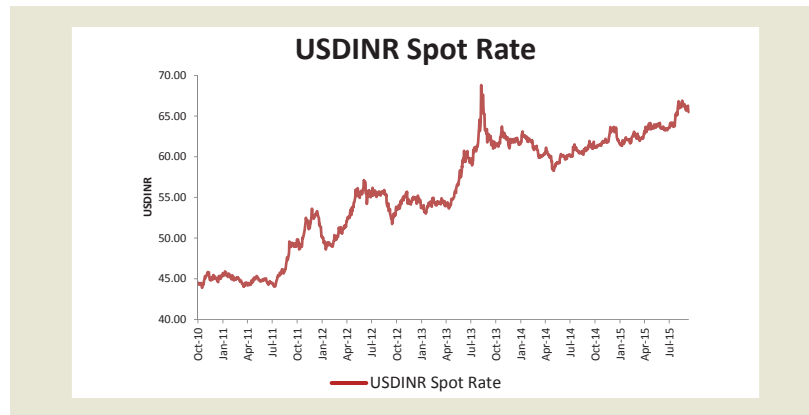
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## Currency Risk

Every business is subject to the risk of unforeseeable changes in business environment. Volatility in exchange rates affects your business growth and can be significant. If you are an exporter, importer or have foreign currency loans, you are directly exposed to exchange rate fluctuation. You could also have significant risk imposed by indirect exposure, such as local purchases of imported goods via agencies, domestic purchase of LME linked commodities, FX loans on books of subsidiary etc. It is possible to mitigate these risks by using suitable hedging instruments.

### Rupee Spot rate Movement



Source: Reuters

### NSE's Currency Futures and Options

NSE provides you a liquid, transparent market for foreign exchange risk management. The contracts available to you are:

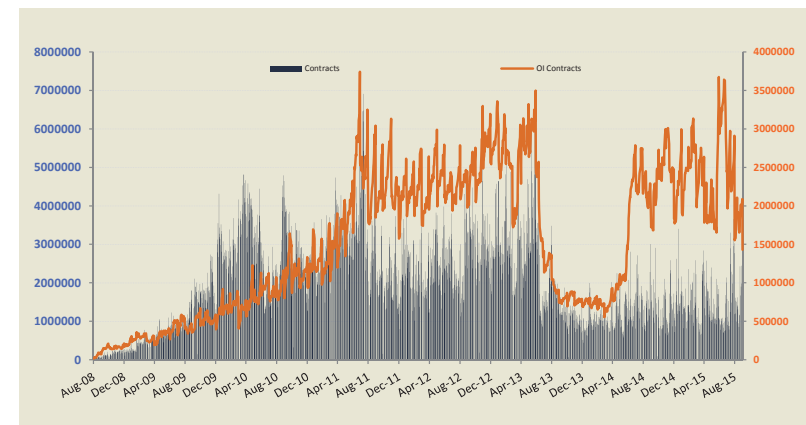
**Futures Contracts in USD-INR, EUR-INR, GBP-INR and JPY-INR. (maximum of 12 monthly contracts)**

**Options in USD-INR (maximum of 6 monthly contracts)**

### Benefits of Exchange traded Currency Futures & Options

	Exchange Traded Currency Futures & Options Market	OTC Market
<b>Participation</b>	All resident Indians & FPIs permitted (except NRIs)	Participation is allowed only with underlying
<b>Bid-Ask Spread</b>	Bid - Ask spread as low as 0.0025 INR, (near month)	Bid - Ask spread are often as wide as 1 to 2 paise
<b>Transparency</b>	High price transparency – same real time outright price available to you	Low transparency – price trending is possible, if not in spot then in forwards
<b>Price</b>	Can trade/hedge as small as \$1000 without price and client discrimination	Price discrimination – varies across clients (card rates for small lots)
<b>Accessibility</b>	Higher accessibility – remote trading platform possible on your desktop	Lower accessibility - Need to call bank dealing room to transact
	Best 5 orders available in the market can be accessed/seen easily by you	Information asymmetry – only banks have access to order flow window

### Growth of Exchange Traded Currency Futures & Options



Source: NSE

The peak turnover at NSE is USD 7.3 billion in Currency Futures and USD 3.7 billion in Currency Options.

# Derivatives on Currency

## NSE CURRENCY DERIVATIVES

### Product Specification

#### Currency Futures

Symbol	USDINR	EURINR	GBPINR	JPYINR
Instrument Type	FUTCUR	FUTCUR	FUTCUR	FUTCUR
Unit of trading	1 - 1 unit denotes 1000 USD.	1 - 1 unit denotes 1000 EURO.	1 - 1 unit denotes 1000 POUND STERLING.	1 - 1 unit denotes 100000 JAPANESE YEN.
Underlying / Order Quotation	The exchange rate in Indian Rupees for US Dollars.	The exchange rate in Indian Rupees for Euro.	The exchange rate in Indian Rupees for Pound Sterling.	The exchange rate in Indian Rupees for 100 Japanese Yen.
Tick size	0.25 paise or INR 0.0025.			
Trading hours	Monday to Friday 9:00 a.m. to 5:00 p.m.			
Contract trading cycle	12 month trading cycle.			
Last trading day	Two working days prior to the last business day of the expiry month at 12.30 pm			
Final settlement day	Last working day (excluding Saturdays) of the expiry month. The last working day will be the same as that for Interbank Settlements in Mumbai.			
Quantity Freeze	10,001 or greater.			
Initial margin	SPAN Based Margin.			
Extreme loss margin	1% of MTM value of gross open position.	0.3% of MTM value of gross open position.	0.5% of MTM value of gross open position.	0.7% of MTM value of gross open position.
Calendar spreads	₹400 for spread of 1 month.	₹700 for spread of 1 month.	₹1500 for spread of 1 month.	₹600 for spread of 1 month.
	₹500 for spread of 2 months.	₹1000 for spread of 2 months.	₹1800 for spread of 2 months.	₹1000 for spread of 2 months.
	₹800 for spread of 3 months.	₹1500 for spread of 3 months and more.	₹2000 for spread of 3 months and more.	₹1500 for spread of 3 months and more.
	₹1000 for spread of 4 months and more.			
Settlement	Daily settlement : T + 1 Final settlement : T + 2			
Mode of settlement	Cash settled in Indian Rupees.			
Daily settlement price	Calculated on the basis of the last half an hour weighted average price.			
Final settlement price	RBI reference rate.	RBI reference rate.	Exchange rate published by RBI in its Press Release captioned RBI reference Rate for US\$ and Euro.	Exchange rate published by RBI in its Press Release captioned RBI reference Rate for US\$ and Euro.

#### Currency Options

Symbol	USDINR
Instrument type	OPTCUR
Option type	Premium style European Call & Put Options.
Premium	Premium quoted in INR.
Unit of trading	1 contract unit denotes USD 1000.
Underlying / Order Quotation	The exchange rate in Indian Rupees for US Dollars.
Tick size	0.25 paise i.e. INR 0.0025.
Trading hours	Monday to Friday 9:00 a.m. to 5:00 p.m.
Contract trading cycle	3 serial monthly contracts followed by 1 quarterly contracts of the cycle March/June/September/December.
Strike price	12 In-the-money, 12 Out-of-the-money and 1 Near-the-money. (25 CE and 25 PE)
Strike price intervals	INR 0.25.
Quantity freeze	10,001 or greater.
Expiry/Last trading day	Two working days prior to the last business day of the expiry month at 12.30 noon.
Exercise at expiry	All in-the-money open long contracts shall be automatically exercised at the final settlement price and assigned on a random basis to the open short positions of the same strike and series.
Final settlement day	Last working day (excluding Saturdays) of the expiry month. The last working day will be the same as that for Interbank Settlements in Mumbai.
Initial margin	SPAN Based Margin.
Extreme loss margin	1.5% of Notional Value of open short position.
Settlement of premium	Premium to be paid by the buyer in cash on T+1 day.
Settlement	Daily settlement : T + 1 Final settlement : T + 2
Mode of settlement	Cash settled in Indian Rupees.
Final settlement price	RBI reference rate on the date of the expiry of the contact.

## Position Limits

Proprietary positions of non-bank stock brokers, clients and category III FPIs.

The gross open positions of the client across all contracts in the respective currency pairs shall not exceed the limits as mentioned below.

Currency Pairs	Position limits
USD-INR	Gross open position across all contracts shall not exceed 6% of the total open interest or USD 10 million, whichever is higher.
EUR-INR	Gross open position across all contracts shall not exceed 6% of the total open interest or EUR 5 million, whichever is higher.
GBP-INR	Gross open position across all contracts shall not exceed 6% of the total open interest or GBP 5 million, whichever is higher.
JPY-INR	Gross open position across all contracts shall not exceed 6% of the total open interest or JPY 200 million, whichever is higher.

The Exchange would disseminate alerts if the gross open position of the client across all members (on the basis of PAN) across all contracts exceeds the aforesaid position limits or if the gross open position of the client across all members (on the basis of PAN) across all contracts exceeds 3% of the total open interest of the previous day's trade at the end of the day

- Stock Brokers (bank and non-bank), Category I and II FPIs, Domestic Institutional Investors (DII)

The gross open positions of the trading member across all contracts in the respective currency pairs shall not exceed the limits as mentioned below.

Currency Pairs	Position limits
USD-INR	Gross open position across all contracts shall not exceed 15% of the total open interest or USD 100 million, whichever is higher.
EUR-INR	Gross open position across all contracts shall not exceed 15% of the total open interest or EUR 50 million, whichever is higher.
GBP-INR	Gross open position across all contracts shall not exceed 15% of the total open interest or GBP 50 million, whichever is higher.
JPY-INR	Gross open position across all contracts shall not exceed 15% of the total open interest or JPY 2000 million, whichever is higher.

Within the applicable position limits, position taken by the FPIs in the currency derivative segment shall be subject to the following conditions:

- Foreign Portfolio Investors (FPIs) may take long as well as short positions per stock exchange up to the following limit without having to establish the existence of any underlying exposure:
- USD-INR currency pair: USD 15 million;
- EUR-INR, GBP-INR and JPY-INR currency pairs (all put together): USD 5 million. FPIs shall ensure that their short positions at a stock exchange across all contracts in USD-INR pair do not exceed USD 15 million and do not exceed USD 5 million equivalent in EUR-INR, GBP-INR and JPY-INR pairs, all put together at any point of time.
- To take long positions in excess of USD 15 million in USD-INR pair and in excess of USD 5 million equivalent in EUR-INR, GBP-INR and JPY-INR pairs, all put together, FPIs shall be required to have an underlying exposure in Indian debt or equity securities, including units of equity/debt mutual funds.

Position taken by Domestic Clients excluding Bank within the applicable position limit shall be subjected to the following conditions:

- Domestic clients may take long as well as short positions per stock exchange up to the following limit without having to establish the existence of any underlying exposure:
- USD-INR currency pair : USD 15 million;
- EUR-INR, GBP-INR and JPY-INR currency pairs (all put together): USD 5 million. Domestic clients may take positions in excess of USD 15 million in USD-INR pair and in excess of USD 5 million equivalent in EUR-INR, GBP-INR and JPY-INR pairs, all put together, subject to the conditions specified in the RBI A.P. (DIR Series) Circular no. 147 dated June 20, 2014 and RBI A.P. (DIR Series) Circular no. 90 dated March 31, 2015.
- Domestic Clients/FPI shall ensure that their position do not exceed USD 15 million in USD-INR pair and USD 5 million equivalent in EUR-INR, GBP-INR and JPY-INR pairs, all put together without the existence of any underlying exposure at any point of time.
- Open interest calculation is based on previous day Future + Option open positions.

## Example on Hedging Using Currency Futures for Exporter

XYZ is an exporter. On 15th October 2015, XYZ Limited wish to book its inward remittance for 26th Nov. 2015 worth \$100,000. (Expiry for Nov. month is 26th Nov. 2015)

Futures Rate for Nov. Expiry: 65.50  
 No of Contracts (100,000/1000): 100  
 Sell Currency Futures at 65.50  
 Notional Value for \$100,000 = 65,50,000 (65.50\*100000)  
 Margin\*\* 4% posting on T day\* = INR 2,62,000 (65,50,000\*4%)

**Month End\*-**  
 Settlement of Currency Futures @ RBI Ref. Rate On expiry 26th Nov. 2015, if RBI Ref Rate is as follows

<b>Case I</b> Assume USD/INR - 67.00 (RBI Ref Rate) <b>Loss:</b> = (65.50-67.00)*1,00,000 = INR 1,50,000 Margin will get released	<b>Case II</b> Assume USD/INR - 63.50 (RBI Ref Rate) <b>Profit:</b> = (65.50 - 63.50)*1,00,000 = INR 2,00,000 Margin will get released
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Month End – On the same day  
**Case I\*\*\***  
 Sell USD to bank @ Spot 67.00  
**Case II\*\*\***  
 Sell USD to bank @ Spot 63.50

\* T day-Trade day    \*\* Margin 4% is subjective    \*\*\* Assuming Nil Execution Charges, and Spread

n Exporter locks his infows at 65.50 or INR 65,50,000 using currency futures

### Possible out comes on different maturity rates

RBI Ref. Rate on Maturity	Payoff of underlying USDINR	Payoff of futures sold at 65.50	Net Payoff
63.50	6,350,000	200,000	6,550,000
64.00	6,400,000	150,000	6,550,000
64.50	6,450,000	100,000	6,550,000
65.00	6,500,000	50,000	6,550,000
65.50	6,550,000	0.00	6,550,000
66.00	6,600,000	(50,000)	6,550,000
66.50	6,650,000	(100,000)	6,550,000
67.00	6,700,000	(150,000)	6,550,000
67.50	6,750,000	(200,000)	6,550,000

## Example on Hedging Using Currency Futures for Importer

XYZ is an importer. On 15th October 2015, XYZ Limited wish to book its outward remittance for 26th Nov. 2015 worth \$100,000. (Expiry for Nov. month is 26th Nov. 2015)

Futures Rate for Oct Expiry: 65.50  
 No of Contracts (100,000/1000): 100  
 Buy Currency Futures at 65.50  
 Notional Value for \$100,000 = 65,50,000(65.50\*100000)  
 Margin\*\* 4% posting on T day\* = 2,62,000 (65,50,000\*4%)

**Month End\*-**  
 Settlement of Currency Futures @ RBI Ref. Rate On expiry 26th Nov. 2015 if RBI Ref Rate

<b>Case I</b> Assume USD/ INR-63.50 (RBI Ref Rate) <b>Loss :</b> = (63.50-65.50)*1,00,000 = INR 2,00,000 Margin will get released	<b>Case II</b> Assume USD/INR-67.00 (RBI Ref Rate) <b>Profit :</b> = (67.00-65.50)*1,00,000 = INR 1,50,000 Margin will get released
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Month End – On the same day  
**Case I\*\*\***  
 Buy USD from bank @ Spot 63.50  
**Case II\*\*\***  
 Buy USD from bank @ Spot 67.00

\* T day-Trade day    \*\* Margin 4% is subjective    \*\*\* Assuming Nil Execution Charges, and Spread

n Importer locks his outflows at 65.50 or INR 65,50,000 using currency futures

### Possible out comes on different maturity rates

RBI Ref. Rate on Maturity	Payoff of underlying USDINR	Payoff of futures sold at 65.50	Net Payoff
63.50	6,350,000	(200,000)	6,550,000
64.00	6,400,000	(150,000)	6,550,000
64.50	6,450,000	(100,000)	6,550,000
65.00	6,500,000	(50,000)	6,550,000
65.50	6,550,000	0.00	6,550,000
66.00	6,600,000	50,000	6,550,000
66.50	6,650,000	100,000	6,550,000
67.00	6,700,000	150,000	6,550,000
67.50	6,750,000	200,000	6,550,000

# Derivatives on Currency

## NSE CURRENCY DERIVATIVES

### Example on Hedging Using Currency Options

**XYZ is an exporter. On 15th October 2015, XYZ Limited wish to buy downside protection on dollar till 28th Oct 2015 for \$100,000.**

Strike price:	65.00	Month End Settlement of Currency Futures @ RBI Ref. Rate
Downside Protection Option	Put	On expiry 28th Oct 2015 if RBI Ref Rate : 63.50
Premium:	0.30	
No of Contracts:	100	Options (Put) bought will be worth exercising since dollar depreciated above strike 65.00
Buy Put at strike 65.00 and pay INR 0.30 as premium		Exporter will gain $(65.00 - 0.30 - 63.50) * 100000 = \text{INR } 120,000$
Notional Value for \$100,000 = INR 65,00,000 (65.00*100,000)		On the same day and time XYZ will convert its inward remittance at 63.50 with bank.
Margin 100% of Premium Value on T Day = 30,000 (0.30*100*1000)		

XYZ has hedged the downside in USD/INR by paying INR 30,000 as premium. Options can be used in high volatility scenario

#### Possible outcomes on different maturity rates:

- It can be seen that if dollar moves above 65.00 losses at option bought will be limited to 0.30 INR
- Put option value increases as soon as it go below 65.00

RBI Ref. Rate on Maturity	Payoff of underlying USD/INR	Payoff of Put bought at 65.00	Net Payoff
63.00	6,300,000	170,000	6,470,000
63.50	6,350,000	120,000	6,470,000
64.00	6,400,000	70,000	6,470,000
64.50	6,450,000	20,000	6,470,000
65.00	6,500,000	(30,000)	6,470,000
65.50	6,550,000	(30,000)	6,520,000
66.00	6,600,000	(30,000)	6,570,000
66.50	6,650,000	(30,000)	6,620,000
67.00	6,700,000	(30,000)	6,670,000

### About NSE

NSE is one of the leading exchanges in the world on several key parameters. NSE is ranked number one exchange in terms of number of trades in equity markets. It also has the highest number of contracts traded in stock index options and exchange traded currency derivatives. NSE uses state-of-art information technology to provide an efficient and transparent market mechanism. It has heralded several innovations like demutualisation; screen based trading, reduced settlement cycles, dematerialization, electronic-transfer of securities, robust risk management systems and introduction of clearing corporation to take on counterparty risks.

### Milestones

