

CURRENCY DERIVATIVES

Exchange Traded Currency Futures

17th March 2016

Agenda

Introduction

Importance of currencies

Product offering

Trading & Hedging

Comparison: Currency & NIFTY

Factors to watch

Participation process

Contract Specifications

Foreign Exchange – An asset class

- One of the largest traded asset globally
- Global daily average turnover of USD 5.3 trillion*
- In India, daily average turnover of USD 31 billion*
- Traded in the over-the-counter (OTC) and on exchanges
- Available to Resident Indian individual as an asset class
- Can be traded like equities or commodities
- Quoted in relation to another currency
 - Base Currency – Terms Currency
 - For eg. USDINR
 - Implying One USD = How many INR
 - USDINR = 68.00 means for USD 1 = INR 68.00
 - To buy 1 USD Dollar, we have to pay INR 68.00

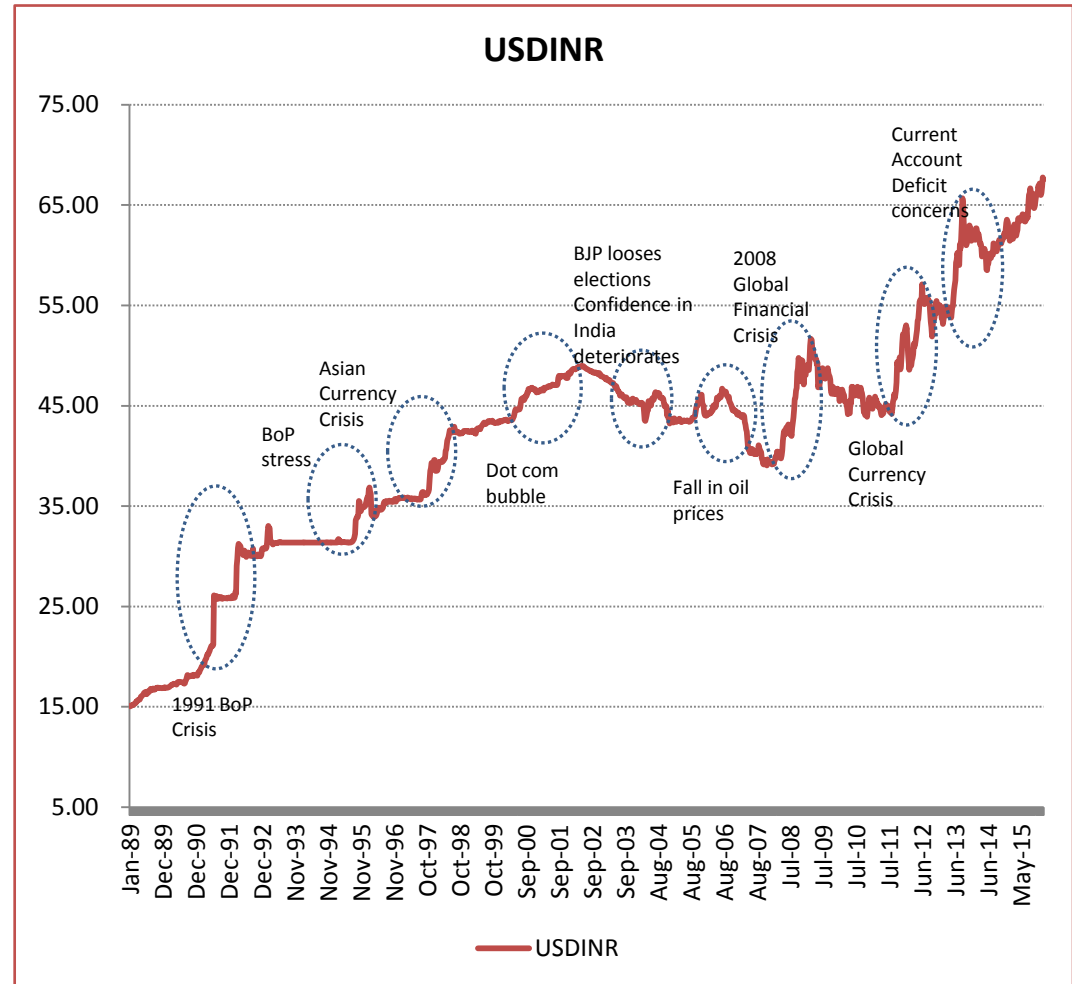
* As per BIS Triennial Survey 2013

Importance of Currencies

- **Country**
 - Trade balance (Imports & Exports)
 - Inflation
 - Global competitiveness
 - Economic Growth
- **Individuals**
 - Remittances
 - Foreign education
 - Imported goods
 - International holidays
 - Inflation
- **Corporate**
 - Imports & exports
 - Foreign currency loans

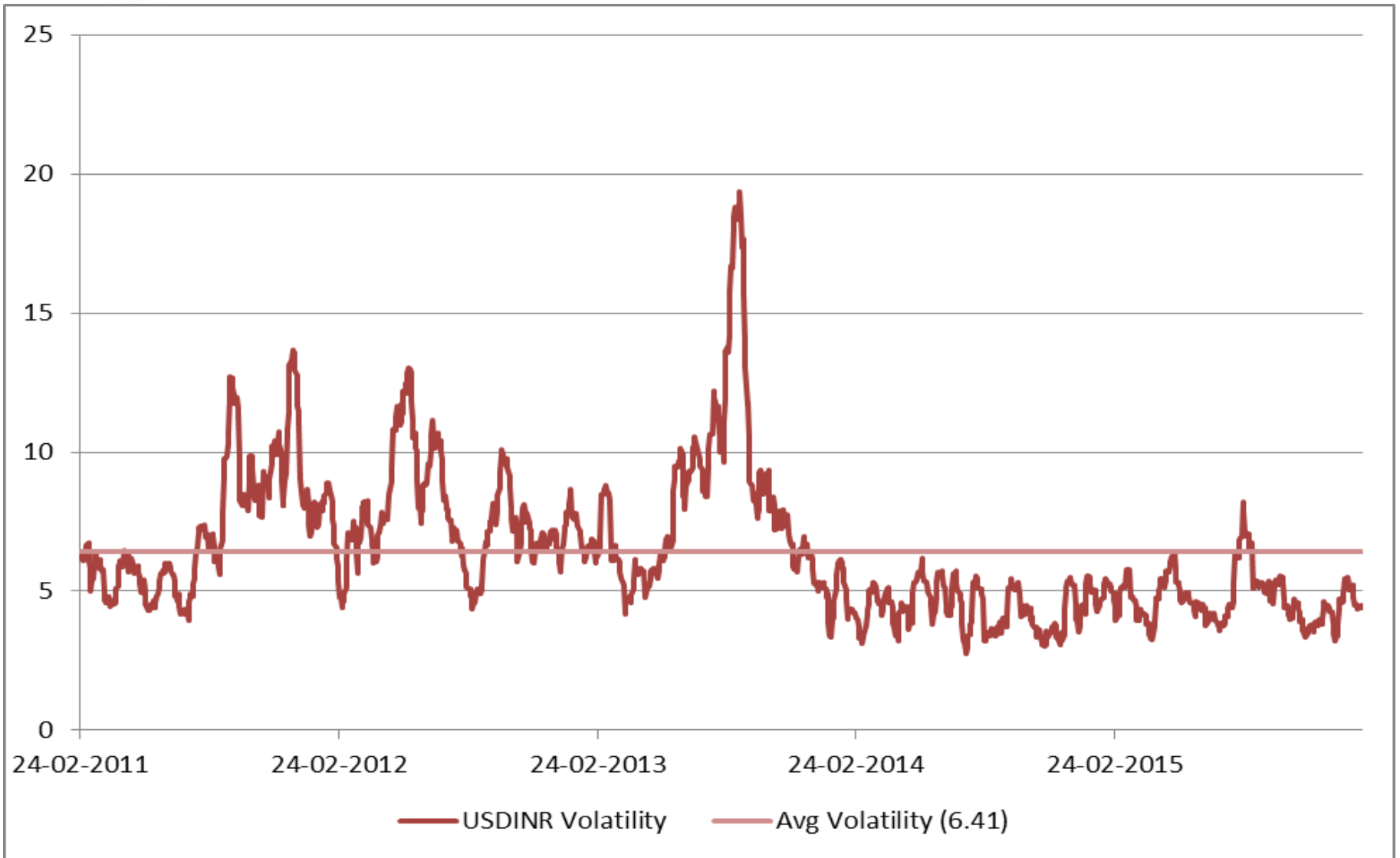
USDINR

- 1991: BOP Crisis
- 1995: BOP Stress
- 1997: Asian Currency Crisis
- 2001: Dot Com Bubble
- 2004: BJP looses election
- 2006: Fall in Crude oil price
- 2008: Global Financial Crisis
- 2011: Global Currency Crisis
- 2013: Current Account Deficit crisis



Source: Reuters

USDINR Daily Volatility (OHLC)



Product Offering

NSE offers cash settled Currency Futures and Currency Options

Currency Futures:

- USDINR
- EURINR
- GBPINR
- JPYINR

Currency Options:

- USDINR

Product Specifications Currency Futures

Symbol	USDINR	EURINR	GBPINR	JPYINR
Unit of trading	1000 USD	1000 EURO	1000 POUND	1,00,000 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.			
Expiry	Two working days prior to the last business day of the expiry month at 12:30 noon.			
Final settlement day	Last working day of the expiry month. Same as that for Interbank			
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	1M = Rs. 400; 2M = Rs. 500; 3M = Rs. 800 4M & more = Rs. 1000	1M = Rs. 700; 2M = Rs. 1000; 3M & more = Rs. 1500	1M = Rs. 1500; 2M = Rs. 1800; 3M & more = Rs. 2000	1M = Rs. 600; 2M = Rs. 1000; 3M & more = Rs. 1500
Settlement	Daily settlement : T + 1 & Final settlement : T + 2			
Mode of settlement	Cash settled in Indian Rupees			
Daily settlement price	Last half an hour weighted average price.			
Final settlement price	RBI reference rate	RBI reference rate	RBI Reference Rate	RBI Reference Rate

Product Specifications Currency Options

Symbol	USDINR
Option type	Premium style European Call & Put Options
Premium	Premium quoted in INR.
Unit of trading	USD 1000
Tick size	0.25 paise i.e. INR 0.0025
Trading hours	Monday to Friday 9:00 a.m. to 5:00 p.m. (IST)
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
Strike price intervals	INR 0.25
Expiry/Last trading day	Two working days prior to the last business day of the expiry month at 12.30 p.m. (IST)
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 of the expiry month. Same as that for Interbank
Margin	Initial: SPAN Based & Extreme loss : 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

New Regulations in ETCD

❑ Circular Reference:

- RBI Circular: RBI/2014-15/526 A .P. (DIR Series) Circular No. 90 (Date: 31, March 2015)
- SEBI Circular: CIR/MRD/DP/ 04 /2015 (Date: 08, April 2015)
- NSE Circular: NSE/SURV/29439 (Date: 13, April 2015)

❑ New Limits:

- USD-INR 15 million – long as well as short, without any underlying exposure
- Beyond USD 15 million, underlying exposure is required
- Underlying can be the following:
 - Past Performance (PP) of past three years
 - Contracted Exposure

❑ Limits without underlying exposure

- USD 15 Million per exchange
- EUR-INR, GBP-INR and JPY-INR pairs, all put together, upto USD 5 million equivalent per exchange.

Position Limits for Domestic Participants

- ❑ Domestic participants (DP) can take positions beyond the above specified limits **on the basis of their past performance or actual underlying exposure**, subject to following limits:

	USDINR	EURINR	GBPINR	JPYINR
Domestic Participant	Higher of 6% of total open interest or USD 10 million	Higher of 6% of total open interest or EUR 5 million	Higher of 6% of total open interest or GBP 5 millions	Higher of 6% of total open interest or JPY 200 million
All put together Equivalent \$5mio USD without underlying				

Note: Primary onus for ensuring compliance with the above provisions shall rest with the Domestic Participant

Computation of client level open position at NSE:

- ❑ Long Positions
 - Long Futures
 - Long Calls
 - Short Puts

- ❑ Short Positions
 - Short Futures
 - Short Calls
 - Long Puts

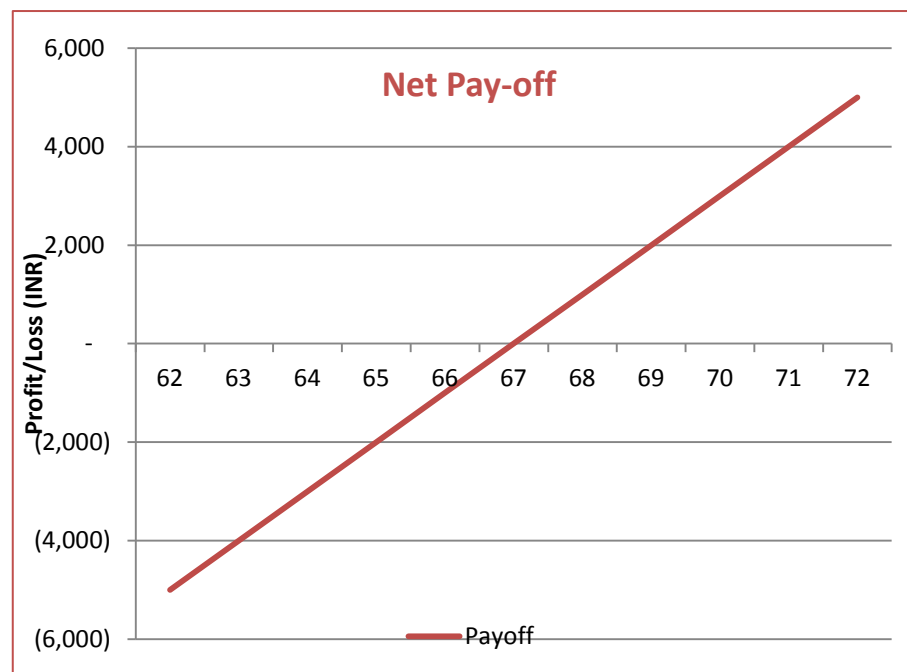
Trading in Currency Futures

View: Investor expects USDINR price to increase from 67.00 to 68.00

Strategy: Investor will buy USDINR contract

Currency Pair	USDINR
Trade Date	7th Jan 2016
Futures Contract Expiry Date	27 th Jan 2016
Future Price (INR)	67.00
Trade	Buy Futures
No. of Lot	1
Total Value (INR)	67,000 (67.00*1,000)
Margin (3% approx.) (INR)	2,010
Trade Date	20th Jan 2016
Scenario 1	
Future Price (INR)	68.00
Trade	Sell Futures
Profit (INR)	1,000

Scenario 2	
Future Price (INR)	66.00
Trade	Sell Futures
Loss (INR)	-1,000



Note: Positions are subject to mark-to-market

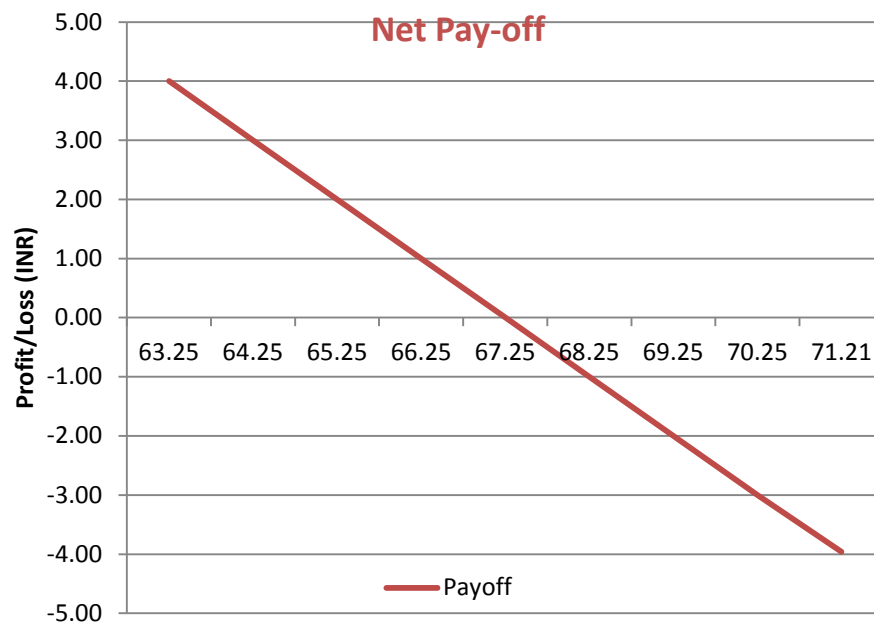
Trading in Currency Futures

View: Investor expects USDINR price to decrease from 67.25 to 68.25

Strategy: Investor will sell USDINR contract

Currency Pair	USDINR
Trade Date	14th Dec 2015
Futures Contract Expiry Date	29 th Dec 2015
Future Price (INR)	67.25
Trade	Sell Futures
No. of Lot	1
Total Value (INR)	67,250 (67.00*1,000)
Margin (3% approx.) (INR)	2,018
Trade Date	23rd Dec 2015
Scenario 1	
Future Price (INR)	66.25
Trade	Buy Futures
Profit (INR)	1,000

Scenario 2	
Future Price (INR)	68.25
Trade	Buy Futures
Loss (INR)	-1,000



Note: Positions are subject to mark-to-market

Hedging Using Currency Futures

An individual wants to remit USD 10,000 to his son studying abroad on 25th Feb. 2016. On 01st of Feb., he expects USDINR price to increase and hedges through currency futures.

Futures Rate for Feb. contract: 67.00
 No of Contracts : 10

Day 1 - Buy Currency Futures at 67.00

Notional Value for \$10,000 =
 6,70,000(67.00*10,000)

Margin* 3% of notional value on Trade day = **INR 20,100** (6,70,000*3%)

Month End - Settlement of Currency Futures @ RBI Ref Rate

On expiry day 25th Feb. 2016, if RBI Ref Rate

Case I

USDINR - 68.00
 (RBI Ref Rate)

Profit:
 = (68.00-67.00)*\$10,000
 = **INR 10,000**

Margin gets released

On the same day

Case I**
 Buy USD from bank
 @ Spot 68.00

Case II

USDINR – 66.00
 (RBI Ref Rate)

Loss:
 = (66.00-67.00)*\$10,000
 = **INR 10,000**

Case II**
 Buy USD from bank
 @ Spot 66.00

* Margin 3% is subjective

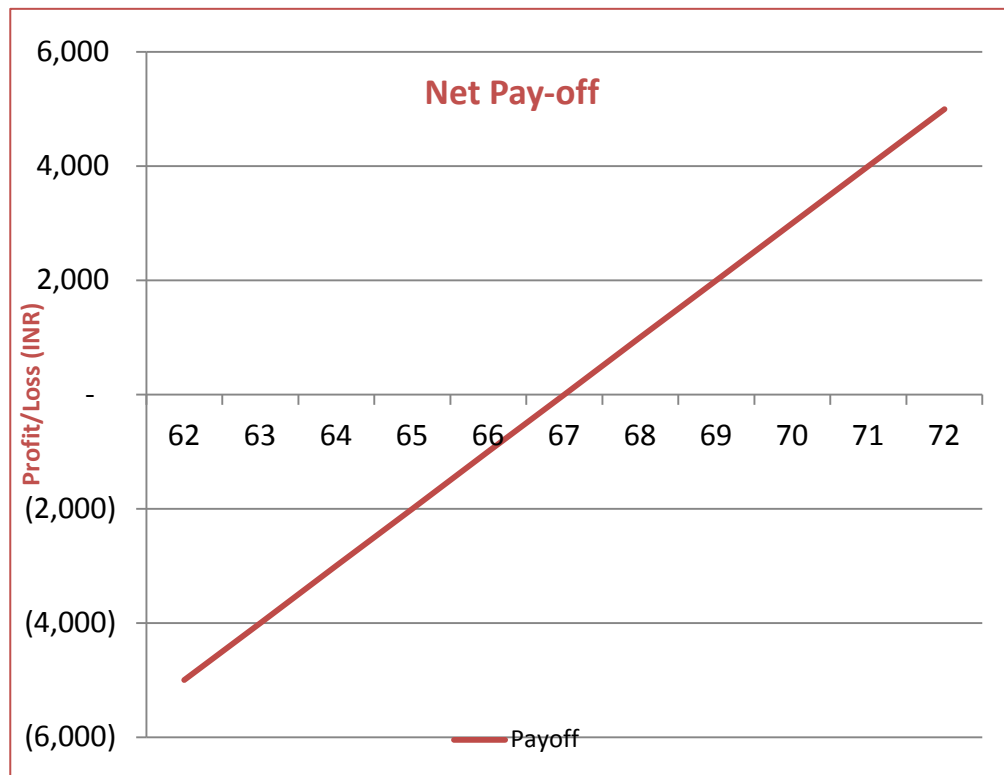
** Assuming Nil Execution Charges, and Spread

Hedging Using Currency Futures

Possible out comes on different maturity rates

- Individual either gets compensated or gets the best rate with bank

RBI Ref. Rate on Expiry	Payoff of underlying USDINR	Payoff of Buy futures @ 67.00	Net Payoff
62.00	620,000	(50,000)	670,000
63.00	630,000	(40,000)	670,000
64.00	640,000	(30,000)	670,000
65.00	650,000	(20,000)	670,000
66.00	660,000	(10,000)	670,000
67.00	670,000	-	670,000
68.00	680,000	10,000	670,000
69.00	690,000	20,000	670,000
70.00	700,000	30,000	670,000
71.00	710,000	40,000	670,000
72.00	720,000	50,000	670,000



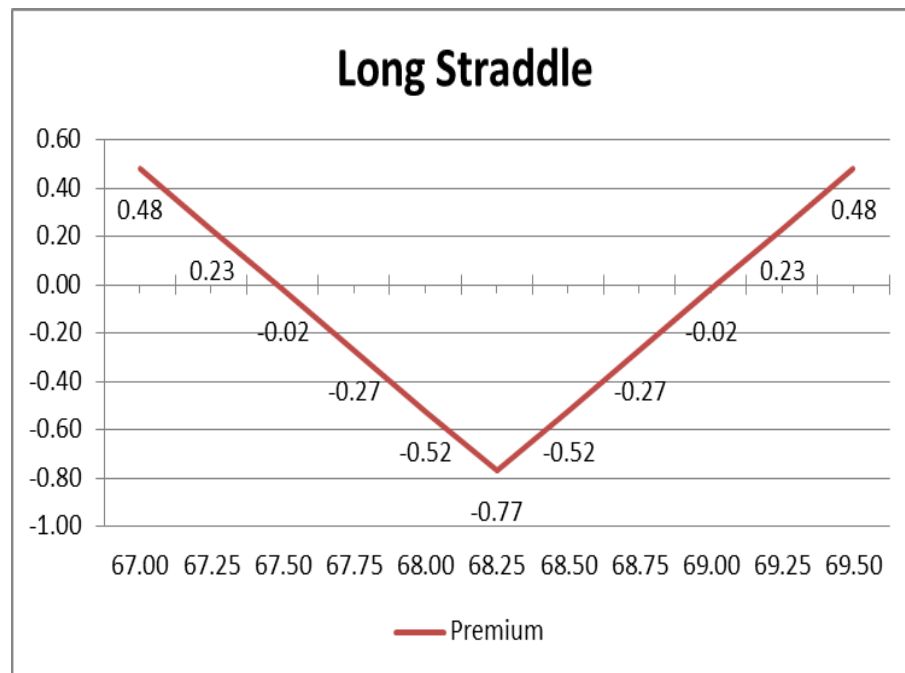
Trading in Currency Options (Long Straddle)

View: Investor expects USDINR price to move sharply from 68.25 in any direction

Strategy: Investor will Buy USDINR call and Buy Put of same strike

Currency Pair	USDINR
Trade Date	9 th Feb 2016
Futures Contract Expiry Date	25 th Feb 2016
Strike Price (INR)	68.25
Trade	Buy Call @ Rs.0.41 Buy Put @ Rs.0.36
No. of Lots each option	1
Premium Outflow	Rs.770 [(0.41+0.36)*1000]
Trade Date	15 th Feb 2016
Scenario 1	
USDINR Price (INR)	66.25
Call Value	Rs.0.00
Put Value	Rs.2.00
Profit (INR)	2,000

Scenario 2	
USD Price (INR)	70.25
Call Value	Rs.2.00
Put Value	Rs.0.00
Profit (INR)	2,000



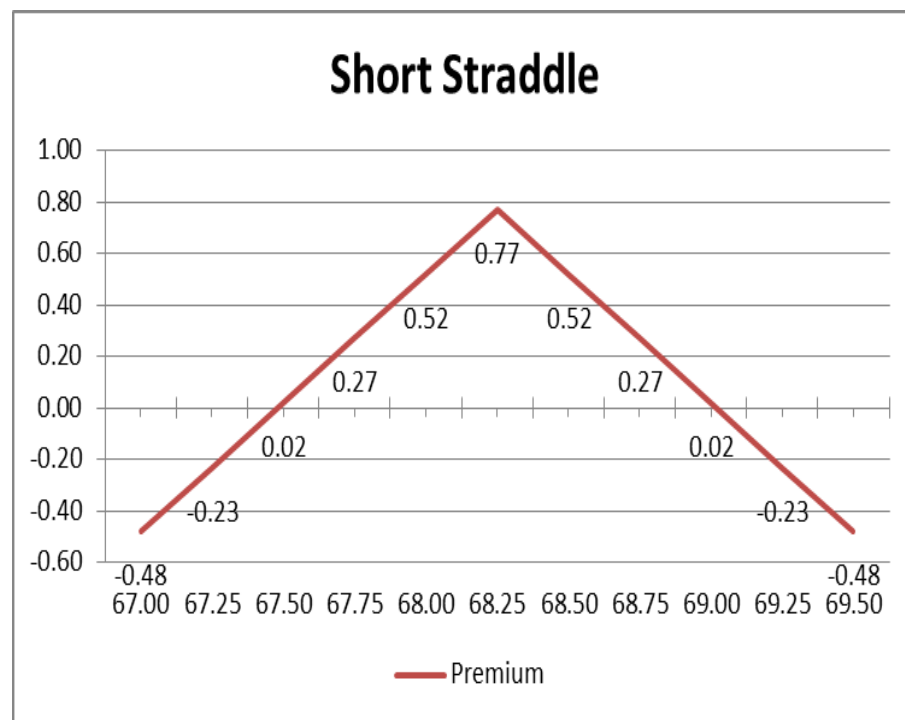
Trading in Currency Options (Short Straddle)

View: Investor expects USDINR price will not move from 68.25 in any direction

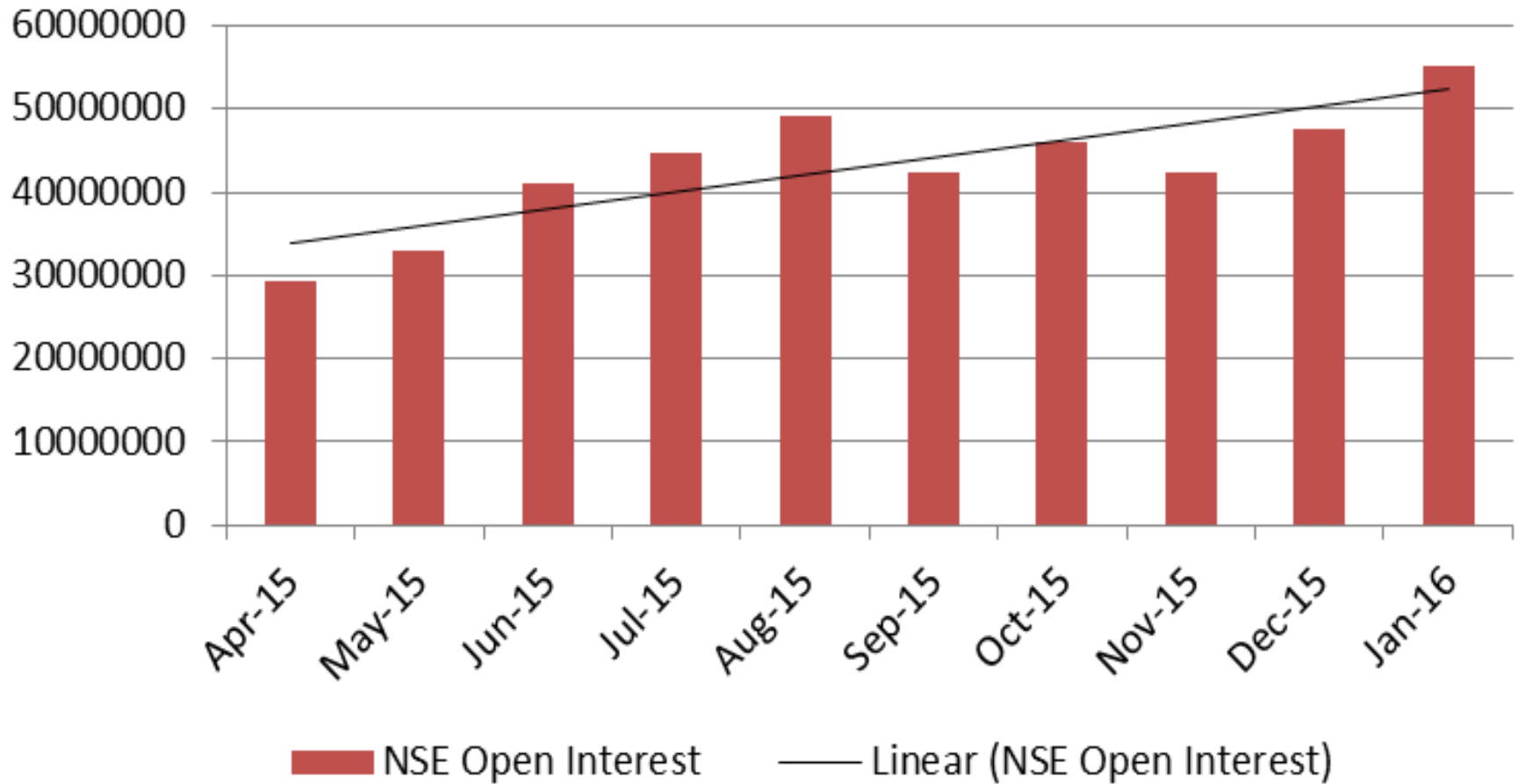
Strategy: Investor will Sell USDINR call and Sell Put of same strike

Currency Pair	USDINR
Trade Date	9 th Feb 2016
Futures Contract Expiry Date	25 th Feb 2016
Strike Price (INR)	68.25
Trade	Sell Call @ Rs.0.41 Sell Put @ Rs.0.36
No. of Lots each option	1
Margin (3%)	Rs.4020 (2010*2)
Premium Inflow	Rs.770 [(0.41+0.36)*1000]
Trade Date	9 th Feb 2016
Scenario 1	
USDINR Price (INR)	68.25
Call Value	Rs.0.00
Put Value	Rs.0.00
Profit (INR)	Rs. 770

Scenario 2	
USD Price (INR)	70.25
Call Value	Rs.2.00
Put Value	Rs.0.00
Loss (INR)	2,000



USDINR Options OI (In Contracts)



ROI Analysis – Currency vs. Nifty Futures

Following comparison shows the Return on Investment (ROI) from USDINR and NIFTY with 1% move in price

	Currency	Nifty
Contract Size	USD 1000	75 Nifty
Trade	Buy 1 contract	Buy 1 contract
Traded Price	67.00	7,500
Notional Value (INR)	67,000 (1,000*67.00)	5,62,500 (7,500*75)
Margin	2,010 (67,000*3%)	56,250 (5,62,500 * 10%)
Price variation (+1.00%)	67.67 (+0.67)	7,575 (+75)
Notional gain/loss (INR)	670 [(67.67-67.00)*1000]	5,625 [(7,575-7500)*75]
Notional gain/loss (%)	33%	10%

Note: Positions are subject to mark-to-market

Factors to Watch

- Economic data
 - Inflation
 - Growth rate
 - Trade data (Import & Export)
- RBI monetary policy Stance
- RBI intervention
- Crude oil price
- FII Activity (Inflows & Outflows)
- Equity markets
- Capital flows
- USD against major currencies
- Global Events
- Commodity prices
- Political & geopolitical events

Equity Markets & USDINR

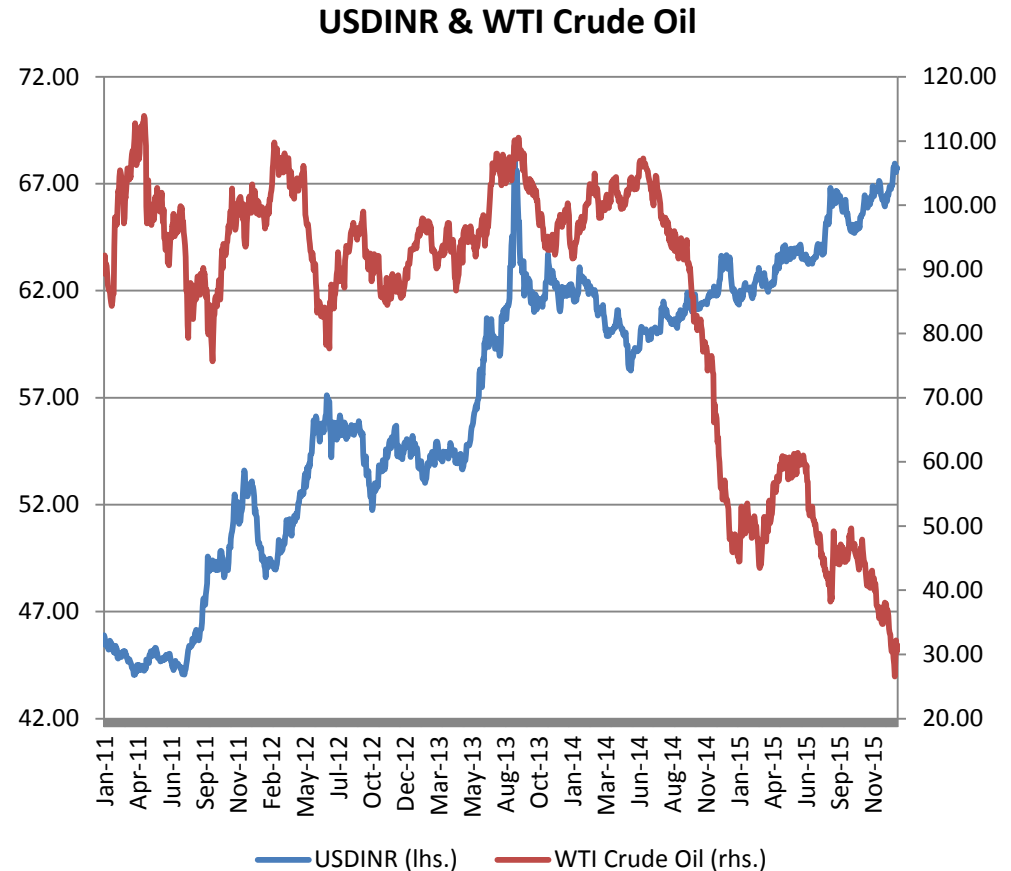
- A fall in equity markets depresses the overall sentiment of investors – inducing FIIs to pull out funds from the markets
- The sentiment in the local equity market is also effected by the sentiment in the global equity markets – US, Europe and Asia
- FIIs exit the equity markets – the local shares are sold off and the INR received from the sale of shares is converted to USD.
- Hence, if equity markets are lower, USDINR will move higher and vice versa

USDINR & Nifty



Crude oil price & USDINR

- Crude Oil constitutes nearly 70% of India's total imports
- Oil prices denominated in USD & payment is made in USD
- Increase in oil prices increases the import bill
- High oil price leads to higher USDINR rate



USD Index & USDINR

- US Dollar Index (DXY) is an index (or measure) of the value of the US Dollar relative to a basket of foreign currencies, often referred to as a basket of US trade partners' currencies
- Basket of foreign currencies include:
 - Euro (Euro)
 - Japanese Yen (JPY)
 - Pound Sterling (GBP)
 - Canadian Dollar (CAD)
 - Swedish Krone (SEK)
 - Swiss Franc (CHF)
- If USD is appreciating against the other currencies, it is likely to strengthen against INR too and vice versa

USDINR & Dollar Index



Trade Deficit & USDINR

- Trade deficit indicates the difference of exports over imports
- Trade deficit indicates more imports than exports
- Imports from India are denominated mostly in USD
- Trade deficit indicates more demand for USD as compared to the supply
- An increase in trade deficit leads to strengthening of USD against INR

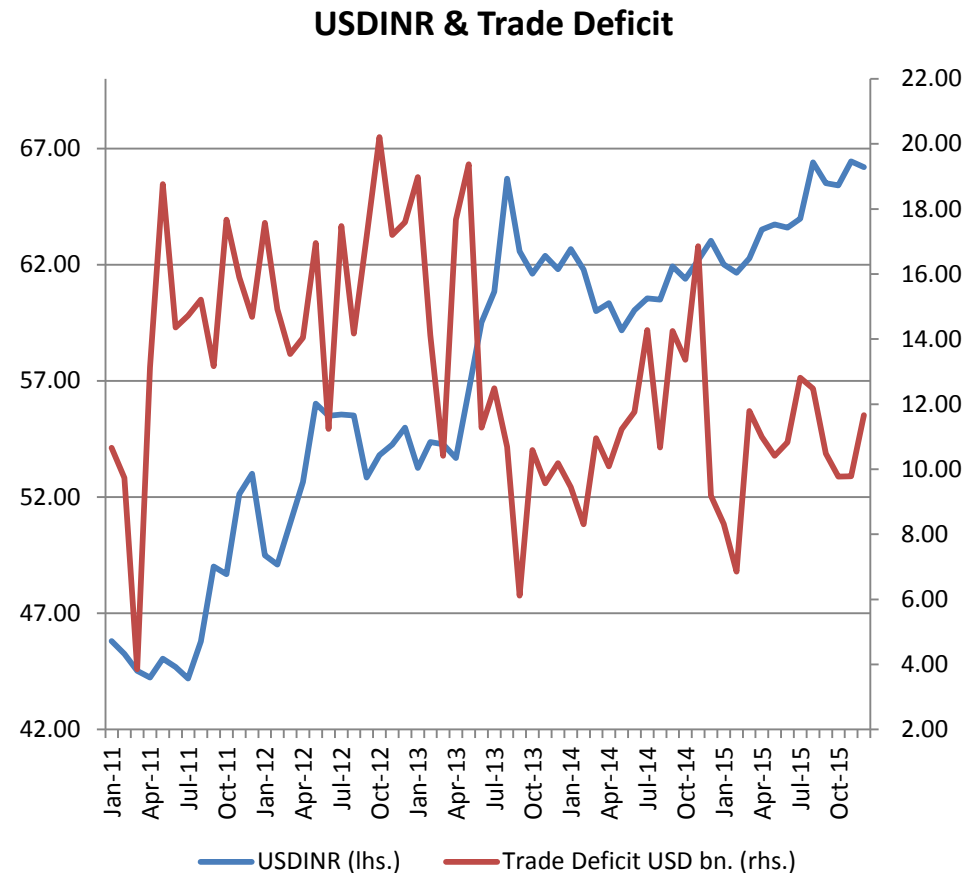


Chart data source: Reuters **Note:** Month end rate considered for USDINR

Capital Flows & USDINR

- Capital flows predominantly consist of Foreign Direct Investments (FDI) and Foreign Institutional Investors (FII)flows
- If the capital inflows increase, it will create a supply of USD and USD will depreciate/weaken against the INR
- Similarly, if there are capital outflows – it will create a demand for USD and USD will appreciate against the INR

Inflation rate & USDINR

- High inflation rate creates an unfavorable impression about the economy
- FDI and FII flows reduce in countries where the rate of inflation is too high – this leads to reduced supply of USD
- A rising inflation also increases the input costs of domestic goods and increases the final price of such goods
- This makes such goods unattractive in the export market, leading to higher trade deficit and leads to USD appreciating against INR

USDINR & Inflation



Interest rate & USDINR

- The value of a country's currency depends on the interest rate of that country
- If the interest rate in India rises, FIIs start investing in the local debt market to take advantage of higher rates
- As FIIs increase the investment, it increases the supply of USD in India and leads to USD depreciating/weakening against INR
- Increase in interest rates in India will lead to depreciation/weakening of USD against INR and vice versa

USDINR & 10 year GOI Bond yield



Intervention by RBI & USDINR

- The Reserve Bank of India (RBI) regulates the currency rate of India
- RBI intervenes when it feels the need to stabilize currency markets and to reduce the market volatility
- A higher currency volatility impacts the importers and exporters
- RBI intervenes during times of high volatility
- RBI buys USD to depreciate the INR and RBI sells USD to appreciate the INR

Transaction & Statutory Charges

	Currency Futures	Equity Futures
SEBI Fees % of Turnover	0.0002%	0.0002%
Stamp Duty % of Turnover	0.002%	0.002%
Exchange Charges % of Turnover	0.0011%	0.00325%
Investor Protection Fund	0.0005%	0.0000%
STT	NA	0.01000%
Total Charges*	0.00370%	0.01546%

* Excluding brokerage charged by TM and service tax.

Four decorative starburst graphics, each composed of small dots, are arranged around the text "Thank You". Two are on the left and two are on the right, with one slightly higher than the other on each side.

Thank You

Disclaimer – Information provided in this presentation is for general information purpose only. The final product specification , settlement process and membership related information would be notified through NSE circulars after SEBI approval





A Brief Introduction to Interactive Brokers

- Interactive Brokers Group (IBG LLC) equity capital exceeds \$5 billion. IBG LLC is listed on the NASDAQ with stock code IBKR
- Interactive Brokers Group was founded by its Chairman and CEO Thomas Peterffy.
- Our real-time margining system marks all customer positions to market continuously. All orders are credit vetted before being executed and positions in accounts with inadequate margin deposits are liquidated automatically.
- We have reported solidly positive earnings for the past 20 consecutive years.
- Interactive Brokers LLC is rated 'BBB+'; Outlook Stable by Standard & Poor's
- Interactive Brokers (India) Pvt Ltd is a subsidiary of IBG LLC with INR 425 crore in paid up capital and is a member of NSE, BSE and NSDL.
- Interactive Brokers Group is headquartered in Greenwich, Connecticut and has approximately 1000 employees in its offices in the USA, Switzerland, Canada, Hong Kong, UK, Australia, Hungary, Russia, Japan, India, China and Estonia. IB is regulated by the SEC, FINRA, NYSE, FCA and other regulatory agencies around the world.
- Our mission remains unchanged "Create technology to provide liquidity on better terms. Compete on price, speed, size, diversity of global products and advanced trading tools."

Trade on over 100 market centers in 24 countries.

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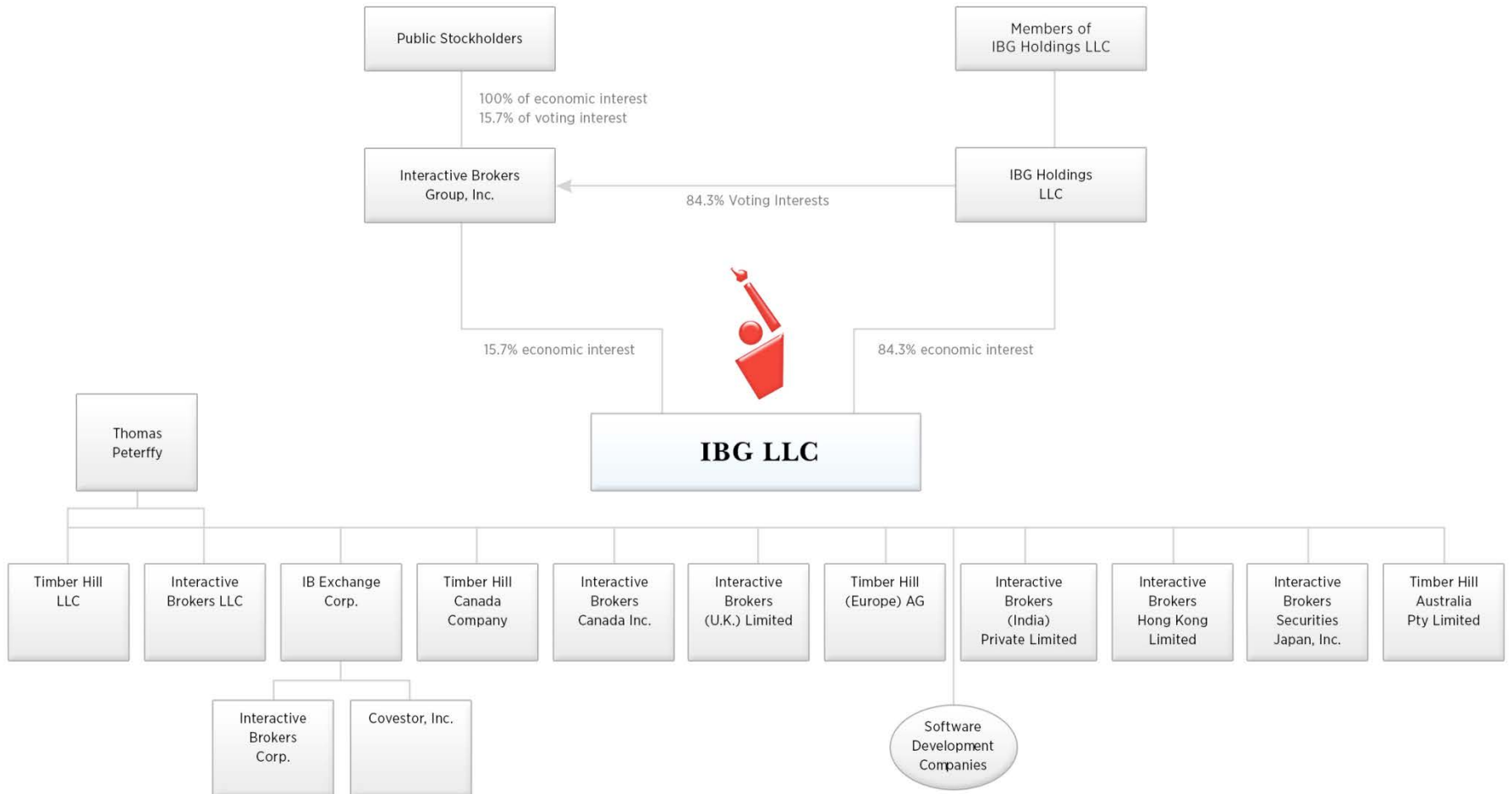


Convert currencies at market determined rates as low as **1/10 of a basis point**, or create a position collateralized by a non-native currency.



Fund your account in multiple currencies. Trade assets denominated in multiple currencies from a single account.

Interactive Brokers Group Structure



SUPERIOR PROFESSIONAL TRADING TECHNOLOGY

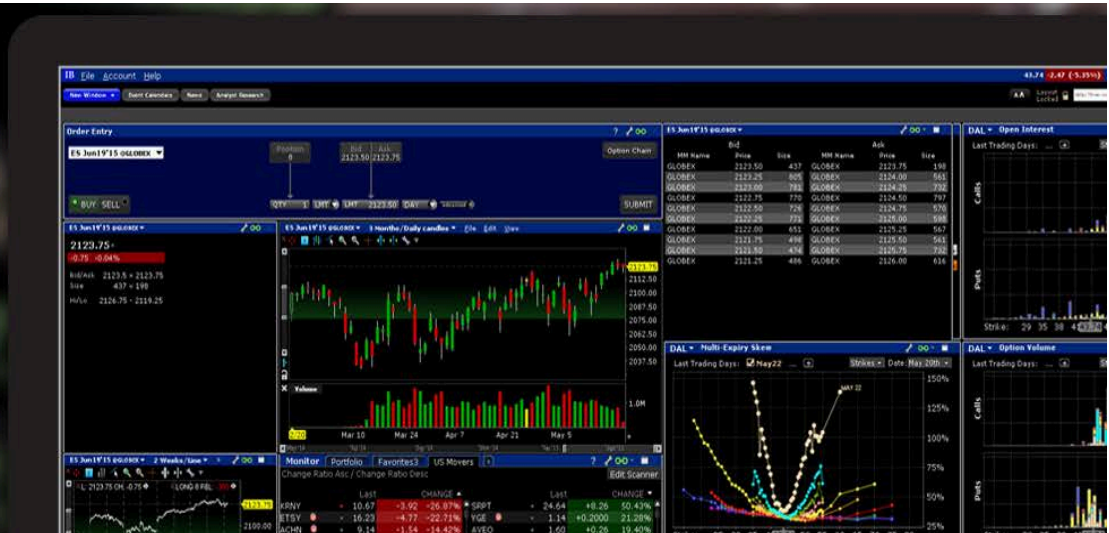
- Our trading platforms have been designed with the professional trader in mind:
- Optimize your trading speed and efficiency with our market maker-designed Trader Workstation (TWS). Easily toggle back and forth between our two interfaces:
 - Mosaic provides out-of-the-box usability in a single, comprehensive and intuitive workspace with quick and easy access to trading, order management and portfolio tools from a single screen.
 - Classic TWS gives you single-click trading in a spreadsheet-like interface, with access to our advanced trading tools in multiple windows.
- Use our HTML-based WebTrader, a clean and simple interface that works from behind a firewall. Easily view market data and research, manage and submit orders, and monitor your order and account activity.
- Use mobileTWS to trade your IB account on-the-go from just about any mobile device, including the iPhone™ and iPad™, Android phone or tablet.
- Alternative access via IB API for automating your trading
- Have a look at our comprehensive set of trading tools : (Chart Trader, Scale Trader, Accumulate Distribute Algorithm, and much more!)

Optimize your trading
speed and efficiency with
our Trading Platforms



Order types and algos may help limit risk, speed execution, provide price improvement, allow privacy, time the market and simplify the trading process through advanced trading functions.

Trader Workstation
Supports over
**60 Order Types
and Algos**





IB's Account Management system lets you configure and manage your IB account from a single window and gives you convenient access to these account features:



Reporting



Funding



Account Configuration



Trading



Security



User Access Rights



Customer Service



Account Services



Product	Commissions	Minimum Per Order
NSE Equities	0.05%	INR 30
NSE Futures	0.01%	N/A
NSE Index Options	INR 15 per contract	N/A
NSE Stock Options	INR 25 per contract	N/A

Notes:

1. Intraday closing leg free for NSE stocks/futures. NSE Stocks has a minimum of INR 30 per order.
2. Additional charges of STT, Exchange Charges, Service Tax, and Stamp Duty apply

Product	Commissions	Minimum Per Order
US Equities	USD 0.005 per share	USD 1
Australia Equities	0.08%	AUD 6
Hong Kong Equities	0.08%	HKD 18
Japan Equities	0.08%	JPY 80



REQUIRED MINIMUMS

NSE Account with
Interactive Brokers
(India) Private
Limited

- Minimum initial deposit of USD 2000 in INR
- Minimum monthly commissions of USD 5 in INR
- Minimum liquid net worth requirement of USD 6000 in INR for NSE Stocks and USD 30,000 in INR for NSE Derivatives (Proof documents are required)

Global Trading
Account with
Interactive Brokers
LLC

- Minimum initial deposit of USD 5000 (For Indian Residents)
- Minimum monthly commissions of USD 10
- Minimum liquid net worth requirements apply based on your age. To know more, visit www.interactivebrokers.com



Process flow of how it works:

Go to IB's website and click on open an account, fill online application

Submit Documents online for global account. For the NSE, our application services group will print and courier the forms for physical signatures

Upon receiving the documents, IB Compliance will review the client application

Once your account is approved, you can fund your account and start trading



Thank You!

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