FOME

CONCEPTS Part 2

OPTIONS

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TRADING ACADEMY

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FOME Concepts Part 2 – OPTIONS

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What are Options?

- Options are contracts which provide the holder the right to sell or buy a specified quantity of an underlying asset at a fixed price on or before the expiration of the option date.

- Options provide a right and not the obligation to buy or sell.

- Developed for Hedging and Speculating!

- There are two basic types of Options:
  - **CALL Option:** It is an option contract which provides the holder a right to buy specified assets at specified price on or before a specified date.

  - **PUT Option:** It is an option contract which provides the holder a right to sell specified assets at specified price on or before a specified date.

Why Options?

- **Flexibility:** It provides multiple execution strategies to implement one view. E.g. If view is Bullish then one can either **Buy Calls** or **Sell Puts**.

- **Leverage:** It offers the highest leverage where one can invest very minimal amount in the form of **PREMIUM** and take much greater exposure of the underlying asset.

- **Incomparable Risk/Reward:** It provides very large profit potential with pre-known maximum risk for an option buyer.

- **Seller Profits:** Selling options is like selling insurance so anyone who feels like earning revenues by selling insurance can set himself up to do so in the Options market.

Futures v/s Options

PARAMETERS		
INVESTMENT	Need to pay Margin Cost (15-20%) for both Buying and Selling Futures	Option Buying - Need to pay complete Premium Cost Option Selling - Need to pay Margin Cost (15-20%) but Receives Premium
VIEW EXECUTION	Bullish – Buy / Long Bearish – Sell / Short	Bullish – Buy Call / Sell Put Bearish – Buy Put / Sell Call
TIME IMPACT	No Impact	Significant as Option value constitutes of Time Value which becomes Zero at Expiry
PLEDGING CAPITAL	Allowed to use for both buying and selling Futures	Allowed to use only for selling Options
PRICE DENOMINATION	Futures Price (Premium or Discount)	Options Price (Premium)
BREAK-EVEN POINT	Immediate similar to cash market	Close or Far according to Option Price
RISK REWARD	Both buying and selling have unlimited Risk and Reward	Option Buying - Limited risk and potentially higher reward than risk involved Option Selling - Limited reward and potentially higher risk than premium received

Options Terminologies

- **American Options:**
  - Currently not used in Indian Market
  - Can be exercised any time before expiration or on the expiration date.
  - CA: Call American, PA: Put American

- **European Options:**
  - Used for Index and Stocks in Indian Market
  - Can be exercised only on the expiry date and not before.
  - CE: Call European, PE: Put European

- **Option Buyer / Holder:** The buyer of an option is the one who, by paying the option premium, buys the right but not the obligation to exercise his option on the seller/writer.

- **Option Seller / Writer:** The seller of an option is the one who receives the option premium and is, thereby, obliged to sell/buy the asset if the buyer exercises on him.

Options Terminologies

- **Option Price/Premium:**
  - The upfront payment made by the buyer to the seller to enjoy the privileges of an option contract.
  - Intrinsic Value + Time Value

- **Intrinsic Value:**
  - The amount by which an Option is “In the Money”.
  - For a call option : Intrinsic value = Spot price – Strike price
  - For a put option : Intrinsic value = Strike price – Spot price
  - E.g. If RIL spot is 920 & RIL 900 call is at a premium of Rs. 25 then Intrinsic Value is 20.

- **Time Value:**
  - The excess premium over the Intrinsic Value is “Time Value”.
  - The longer the time remaining until an option’s expiration, the higher its premium will be.
  - Time Value becomes Zero at Expiry.
  - E.g. If RIL spot is 920 & RIL 900 call is at a premium of Rs. 25 then Time Value is 5.

Options Terminologies

- **Strike Price / Exercise Price:**
  - The pre-determined price at which the underlying asset can be bought or sold.
  - E.g. Nifty strikes prices of 9500, 9550, 9600, 9650, etc.
  - Strikes which are closer to the spot price are more liquid and expensive.

- **ATM - At the Money (Break-Even Point):**
  - An option with strike price equivalent to the current spot price

- **ITM - In the Money (Profit Zone):**
  - A Call option with strike price below the spot price
  - A Put option with strike price above the spot price

- **OTM - Out of the Money (Loss Zone):**
  - A Call option with strike price above the spot price
  - A Put option with strike price below the spot price

Options Terminologies

- **Open Interest (OI)**: It refers to the total number of outstanding positions on a particular options contract across all participants in the market at any given point of time. It becomes Zero past the expiration date for a particular contract.

- **Implied volatility (IV):**
  - It is the estimated volatility of underlying asset price.
  - In general, implied volatility increases when the market is bearish and decreases when the market is bullish. This is due to the common belief that bearish markets are riskier than bullish markets.

- **Expiration Date:** A day on which the option is no longer valid and ceases to exist.
  - Last Thursday of every month for Monthly Expiry. E.g. Nifty, Bank Nifty, etc.
  - Every Thursday for Weekly Expiry. E.g. Nifty, Bank Nifty, etc.

- **Exercise Day:** The date when the buyer/holder of an option exercises the Option

Option Chain

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/www.nseindia.com/live_market/dynaContent/live_watch/option_chain/optionKeys.jsp?symbolCode=1230&symbol=HINDALCO&symbol=HINDALCO

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Home › Live Market › Option Chain › Equity Derivatives › Options Contracts

Option Chain (Equity Derivatives)

Underlying Stock: **HINDALCO 198.25** As on May 26, 2017 15:30:29 IST

View Options Contracts for: Select Index ▼ OR Search for an underlying stock: GO Filter by: Expiry Date 29JUN2017 ▼ Futures contracts

CALLS												PUTS										
Chart	OI	Chng in OI	Volume	IV	LTP	Net Chng	Bid Qty	Bid Price	Ask Price	Ask Qty	Strike Price	Bid Qty	Bid Price	Ask Price	Ask Qty	Net Chng	LTP	IV	Volume	Chng in OI	OI	Chart
	17,500	-	-	-	67.00	-	-	-	-	-	120.00	-	-	0.20	3,500	-	-	-	-	-	-	
	-	-	-	-	-	-	-	-	-	-	125.00	-	-	0.20	3,500	-	-	-	-	-	-	
	17,500	-	-	-	57.00	-	-	-	-	-	130.00	-	-	0.50	3,500	-	-	-	-	-	-	
	3,500	-	-	-	52.35	-	3,500	35.00	-	-	135.00	-	-	0.50	3,500	-	-	-	-	-	-	
	-	-	-	-	-	-	-	-	-	-	140.00	-	-	0.10	3,500	-	-	-	-	-	-	
	-	-	-	-	-	-	-	-	-	-	145.00	7,000	0.05	0.20	3,500	-0.65	0.10	46.78	14	49,000	49,000	
	35,000	7,000	2	-	48.70	7.80	3,500	41.00	-	-	150.00	10,500	0.15	0.20	3,500	-0.30	0.15	44.88	11	35,000	38,500	
	-	-	-	-	-	-	-	-	-	-	155.00	14,000	0.20	0.40	3,500	-1.45	0.30	45.17	33	84,000	84,000	
	-	-	-	-	-	-	35,000	37.15	43.35	35,000	160.00	3,500	0.40	0.50	7,000	-0.30	0.45	43.58	88	-38,500	269,500	
	3,500	-	-	-	25.50	-	35,000	32.25	38.30	35,000	165.00	3,500	0.70	0.75	3,500	-0.75	0.75	43.13	53	84,000	105,000	
	3,500	-	-	-	21.00	-	14,000	28.35	34.30	38,500	170.00	3,500	1.05	1.20	7,000	-0.75	1.10	41.69	369	231,000	1,197,000	
	10,500	-	-	-	17.25	-	10,500	25.35	27.70	24,500	175.00	3,500	1.60	1.80	3,500	-0.90	1.85	42.30	233	-24,500	1,046,500	
	52,500	-	1	-	17.65	2.15	35,000	17.60	25.00	3,500	180.00	17,500	2.60	2.65	3,500	-1.75	2.60	40.99	659	147,000	875,000	
	84,000	-21,000	47	42.00	19.00	6.65	14,000	17.65	19.05	7,000	185.00	3,500	3.75	4.00	17,500	-2.10	3.90	41.29	272	112,000	455,000	
	1,074,500	136,500	662	38.38	14.90	5.20	3,500	14.85	15.60	3,500	190.00	3,500	5.50	5.55	3,500	-2.80	5.55	41.47	780	675,500	1,015,000	
	364,000	10,500	704	39.49	12.15	4.50	3,500	12.15	12.65	3,500	195.00	3,500	7.30	7.55	3,500	-3.80	7.45	41.03	498	283,500	378,000	
	1,204,000	133,000	1,765	39.80	9.65	3.85	3,500	9.60	9.80	7,000	200.00	3,500	9.75	10.00	7,000	-4.20	9.95	41.47	554	511,000	1,015,000	
	430,500	266,000	804	40.28	7.60	3.30	3,500	7.45	7.60	3,500	205.00	3,500	12.40	13.25	14,000	-4.90	12.80	41.74	13	24,500	52,500	
	1,708,000	1,319,500	1,754	40.66	5.90	2.65	3,500	5.85	5.95	3,500	210.00	3,500	15.60	16.55	7,000	-8.50	15.50	39.78	23	17,500	154,000	
	276,500	227,500	206	40.19	4.35	2.05	7,000	4.30	4.70	3,500	215.00	21,000	18.90	20.50	10,500	-	23.50	-	-	-	14,000	
	784,000	591,500	842	40.66	3.30	1.50	17,500	3.30	3.40	7,000	220.00	17,500	22.50	-	-	-11.65	22.00	35.05	1	3,500	31,500	
	192,500	105,000	141	40.30	2.35	1.00	3,500	2.20	2.60	7,000	225.00	10,500	26.85	28.40	10,500	-	30.95	-	-	-	3,500	
	1,291,500	1,228,500	705	40.44	1.70	0.75	3,500	1.70	1.95	3,500	230.00	35,000	28.05	36.65	35,000	-3.95	32.00	45.11	32	14,000	49,000	
	374,500	371,000	181	40.44	1.20	0.75	3,500	0.65	1.40	3,500	235.00	-	-	-	-	-	-	-	-	-	-	
	714,000	675,500	339	40.62	0.85	0.35	7,000	0.80	0.90	3,500	240.00	-	-	-	-	-	-	-	-	-	-	
Total	8,641,500		8,153																3,633		6,832,000	Total

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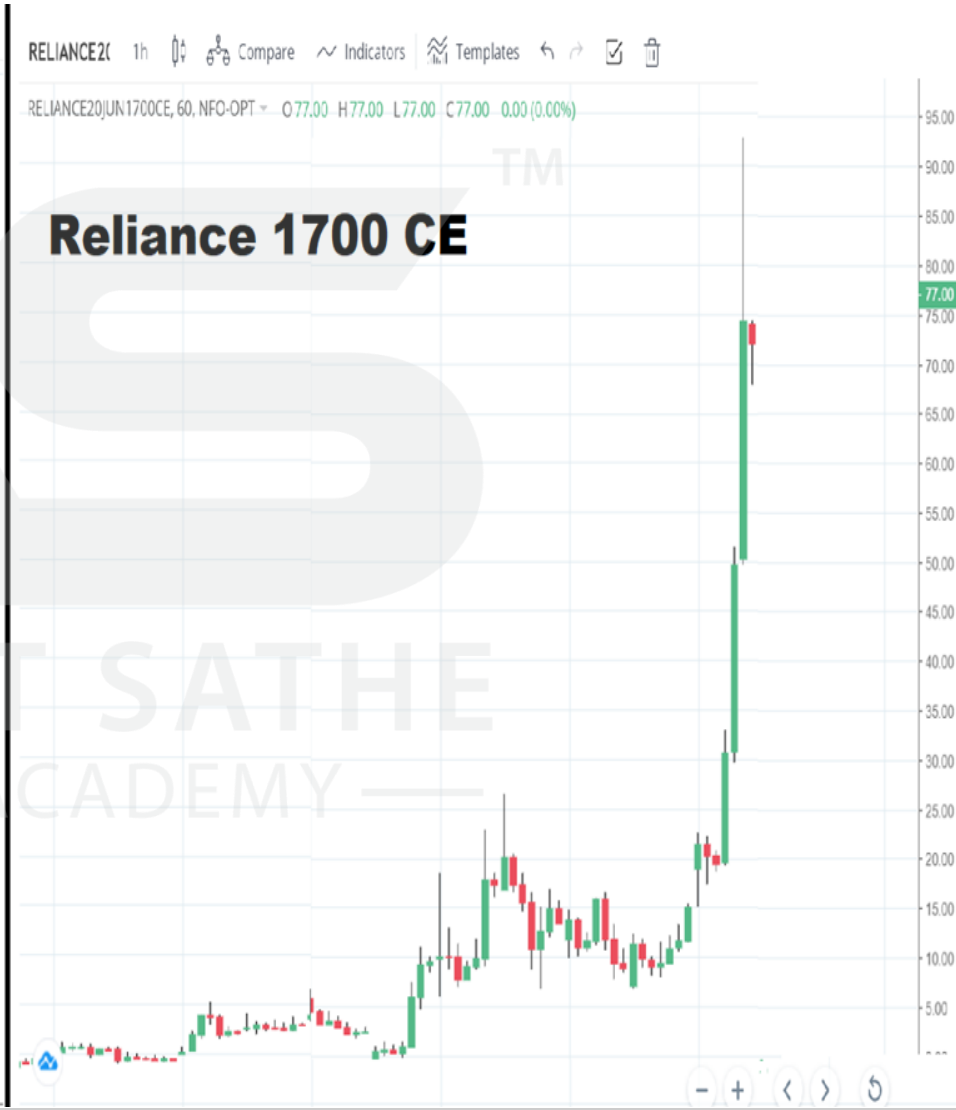
Note : 10% interest rate is applied while computing implied volatility.

Highlighted options are in-the-money.

Call (CE) Option

- It is an option contract which provides the holder a right to buy specified assets at specified price on or before a specified date.
- ITM: A CALL Option with strike price below the spot price.
- OTM: A CALL Option with strike price above the spot price.
- CE Premium = Intrinsic Value + Time Value
- Intrinsic value of CE = Spot price – Strike price
- Bullish View = Buy CE
- Bearish View = Sell CE

CE – Bullish Scenario



CE – Bearish Scenario

Put (PE) Option

- It is an option contract which provides the holder a right to sell specified assets at specified price on or before a specified date.
- ITM: A Put option with strike price above the spot price.
- OTM: A Put option with strike price below the spot price.
- PE Premium = Intrinsic Value + Time Value
- Intrinsic value of PE = Strike price – Spot price
- Bearish View = Buy PE
- Bullish View = Sell PE

PE – Bullish Scenario

PE – Bearish Scenario

CE and PE Overview

CALL OPTION BUYER : LONG CALL	CALL OPTION WRITER (Seller) : SHORT CALL
· Pays premium · Right to exercise and buy the shares · Profits from rising prices · Limited risk and potentially higher reward than risk involved	· Receives premium · Obligation to sell shares if exercised · Profits from falling prices or remaining neutral · Limited reward and potentially higher risk than premium received
PUT OPTION BUYER : LONG PUT	**PUT OPTION WRITER (Seller) : SHORT PUT**
· Pays premium · Right to exercise and sell shares · Profits from falling prices · Limited risk and potentially higher reward than risk involved	· Receives premium · Obligation to buy shares if exercised · Profits from rising prices or remaining neutral · Limited reward and potentially higher risk than premium received

Break-even Point (BEP)

- Break-even point is the point where you are at "**no profit, no loss**". In other words, BEP is where you start making profit or loss.

- BEP calculation:
  - **Equity** – BEP is the same price as you enter in your trade/investment.
    Example: You buy or short (short on intra-day only) Reliance equity shares at Rs. 1750, BEP will be 1750.
  - **Futures** – BEP is the same price as you enter in your trade.
    Example: You went long or short in Nifty Futures at Rs. 10,500, BEP will be 10,500.
  - **Call (CE) Option** – BEP formula for CE is "**Strike Price + Premium**".
    Example: You went long or short in SBI 190 CE at Rs.5, BEP will be 190+5 = 195.
  - **Put (PE) Option** - BEP formula for PE is "**Strike Price - Premium**".
    Example: You went long or short in SBI 190 PE at Rs.5, BEP will be 190-5 = 185.

NOTE: For options, the BEP point is considering the settlement on the day of expiry.

Open Interest (OI)

- Open Interest (OI) is the total number of outstanding positions in options at a given point of time. This is inclusive of buyers and sellers. In other words, Open Interest shows the total number of buyers and sellers who are still in the trade.

- **Build-up** – When the OI goes up, we say that there is "**build-up**" in Open Interest. Basically, it means that traders are entering into fresh contracts resulting in OI going up.

- **Covering** – When the OI goes down, we say that there is "**covering**" in Open Interest. In other words, it means that traders are squaring-off their existing positions resulting in OI going down.

Delta

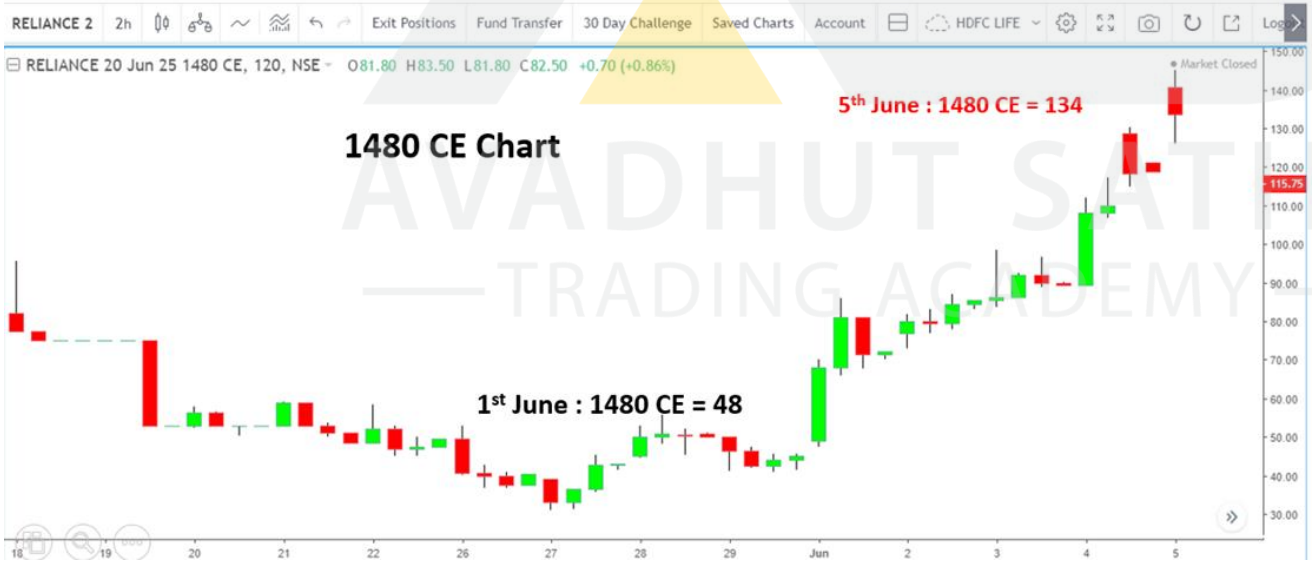
- Generally, when the price of an asset moves by some amount its corresponding derivative, options in this case, does not move with the same value; there is always a difference. This difference in the ratio of change in the spot price of an asset v/s option premium is shown by Delta.

- **Delta is the rate of change in option premium as compared to the change in spot price**.

- Formula for calculating Delta:
  Delta = Change in premium / Change in Spot

- Delta can be used to identify Stop Loss, Target, etc. when trading options.

Delta Example



Price movement of CE with respect to Spot Price

Viru
CALL Buyer

Jay
CALL Seller

Delta Example

- **Delta = Change in premium / Change in Spot**

- In the example of Reliance:

- Spot price on June 01, 2020 = 1480
- Spot price on June 05, 2020 = 1600
- Change in spot = 120 (i.e. 1600 – 1480)

- 1480 CE premium on June 01, 2020 = 48
- 1480 CE premium on June 05, 2020 = 134
- Change in premium = 86 (134 – 48)

- **DELTA** = 86 / 120
- **DELTA = <u>0.71</u>**

IMPORTANT TIPS FOR OPTIONS TRADING

- **Don’t trade in options without proper understanding and practice of Technical Analysis and Options Analysis.**
- **Avoid Illiquid stock options.**
- **Avoid deep OTM options.**
- **Be aware of Time decay in options.**

Ready for Question & Answers…!!??

Our Motto at

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