

S&P 500® Options Strategies

National Stock Exchange of India Limited (NSE) is an electronic exchange with a nationwide presence. It offers trading facility through its fully automated, screen based trading system. A variety of financial instruments, which includes, equities, debentures, government securities, index futures, index options, stock futures, stock options, currency futures, Interest rate Futures etc. are traded on its electronic platform.

NSE is the largest stock exchange in India, with a significant market share in equities and in derivatives (equities/equity indices/currency). It is also one of the leading global exchanges. NSE uses a state of the art telecommunication network to provide investors an efficient and transparent market.

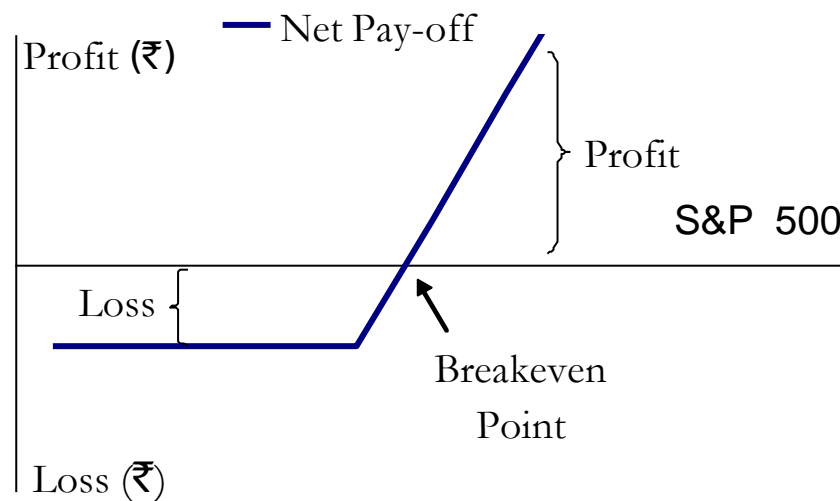
NSE has created new benchmarks in technology infrastructure, risk management systems, clearing and settlement systems, investor services and best market practices. It has been in the fore front offering newer products in equities and derivatives and also new asset classes for the investors to choose from.

Each strategy has an accompanying graph at lower right hand corner showing profit and loss at expiration. The vertical axis shows the profit/loss scale.

When pay-off line is below the horizontal axis it represents the loss/outlay for the strategy. The portion of the pay-off line above the horizontal axis represents a credit or profit for the position.

The intersection of the pay-off line and the horizontal axis is the break-even point (BEP) not including transaction costs, commissions, taxes, margin costs etc.

An illustrative example for the explained strategy and a pay-off table based on example are also provided for better understanding. Each contract used in the following examples has a lot size of 250 S&P 500

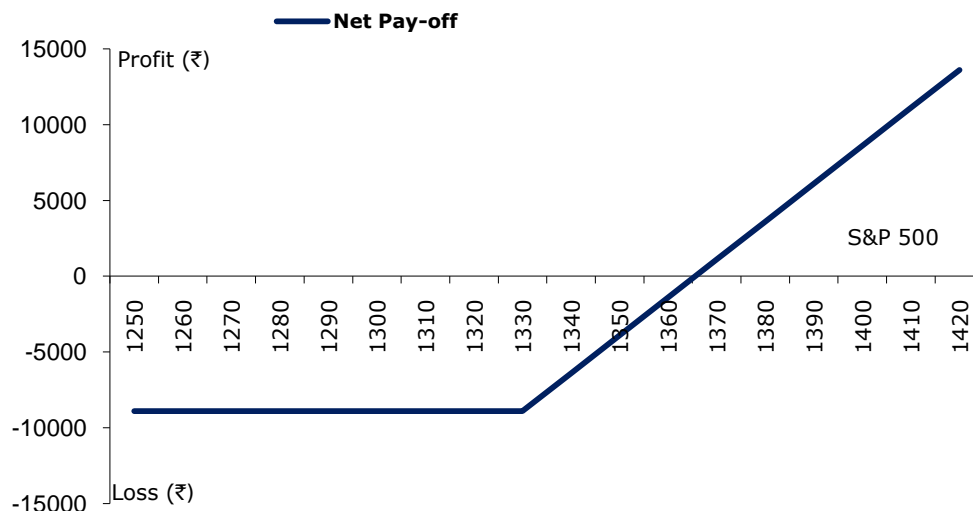


- View : Very bullish on S&P 500
- Strategy : Buy call option
- Risk: Limited to premium
- Reward : Unlimited
- Breakeven :Strike price + Premium
- Profit, when: S&P 500 goes up and option exercised
- Loss, when: S&P 500 does not go up and option expires unexercised

S&P 500 on expiry (₹)	Premium Pay-off (₹)	Exercise Pay-off (₹)	Net Pay-off (₹)
1300.00	-8897.50	0.00	-8897.50
1350.00	-8897.50	5000.00	-3897.50
1365.59	-8897.50	8897.50	0.00
1400.00	-8897.50	17500.00	8602.50
1450.00	-8897.50	30000.00	21102.50

Example: Buy 1 Call Option*

S&P 500	Spot Price (₹)	1320.00
*Lot size 1 Contract = 250 S&P 500	Strike Price (₹)	1330.00
	Premium (₹)	35.59
	Break Even (₹)	1365.59

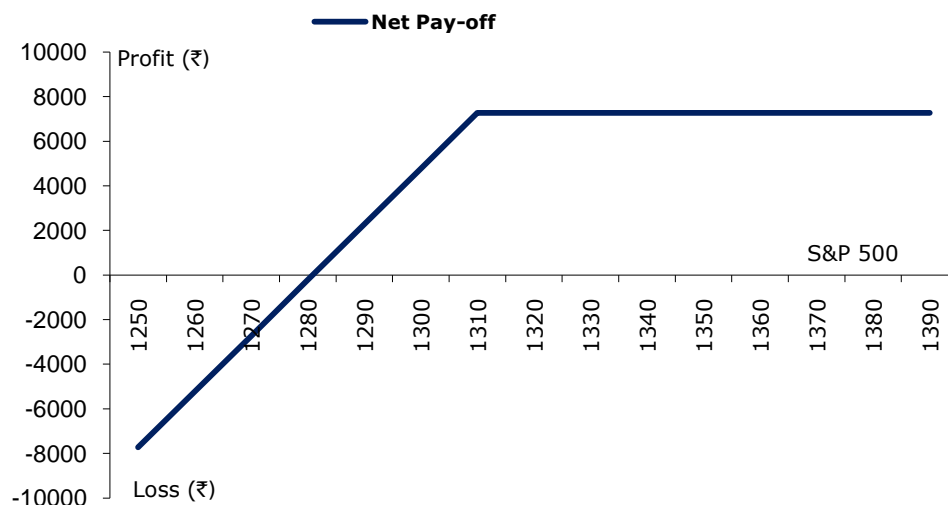


- View : Bullish on S&P 500
- Strategy : Sell put option
- Risk: Unlimited
- Reward : Limited to premium
- Breakeven :Strike price – Premium
- Profit, when: S&P 500 does not go down and option expires unexercised
- Loss, when: S&P 500 goes down and option exercised

S&P 500 on expiry (₹)	Premium Pay-off (₹)	Exercise Pay-off (₹)	Net Pay-off (₹)
1200	7275.00	-27500.00	-20225.00
1250	7275.00	-15000.00	-7725.00
1280.90	7275.00	-7275.00	0.00
1300	7275.00	-2500.00	4775.00
1350	7275.00	0.00	7275.00

Example: Sell 1 Put Option*

S&P 500	Spot Price (₹)	1320.00
*Lot size 1 Contract = 250 S&P 500	Strike Price (₹)	1310.00
	Premium (₹)	29.10
	Break Even (₹)	1280.90

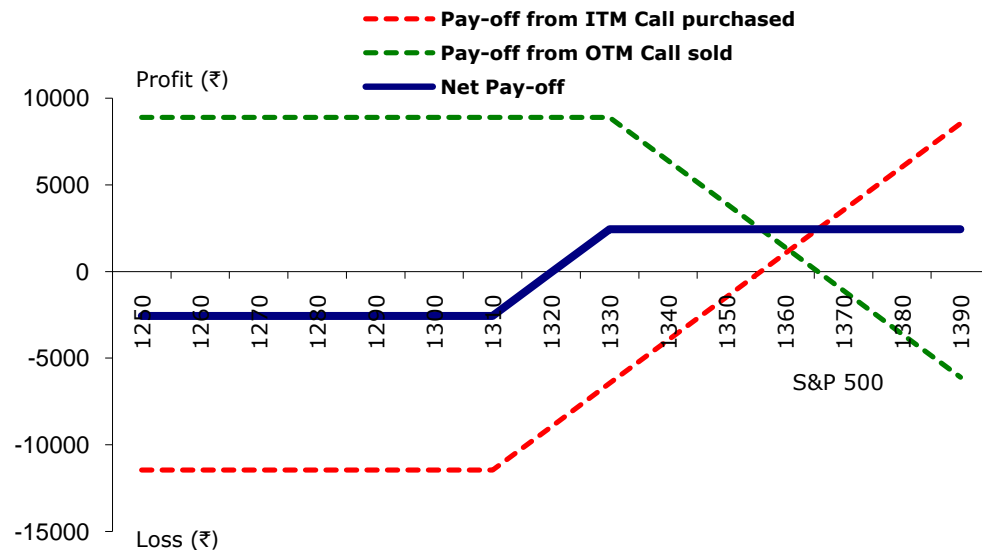


- View : Moderately bullish on S&P 500
- Strategy : Buying ITM Call and selling OTM call thereby reducing cost and breakeven of ITM call
- Risk: Limited to net premium paid
- Reward : Limited to the difference between the two strikes minus net premium paid
- Breakeven : Strike price of purchased call + Net premium paid
- Max profit, when: both options exercised
- Max loss, when: both option unexercised

S&P 500 on expiry (₹)	Pay-off from ITM Call purchased (₹)	Pay-off from OTM Call sold (₹)	Net Pay-off (₹)
1280.00	-11460.00	8897.50	-2562.50
1310.00	-11460.00	8897.50	-2562.50
1320.25	-8897.50	8897.50	0.00
1340.00	-3960.00	6397.50	2437.50
1370.00	3540.00	-1102.50	2437.50

Example: Buy 1 ITM Call Option and Sell 1 OTM Call Option *

S&P 500	Spot Price (₹)	1320.00
*Lot size 1 Contract = 250 S&P 500	ITM Call Strike Price (₹)	1310.00
	Call Premium (₹)	45.84
	OTM Call Strike Price (₹)	1330.00
	Call Premium (₹)	35.59
	Break Even (₹)	1320.25

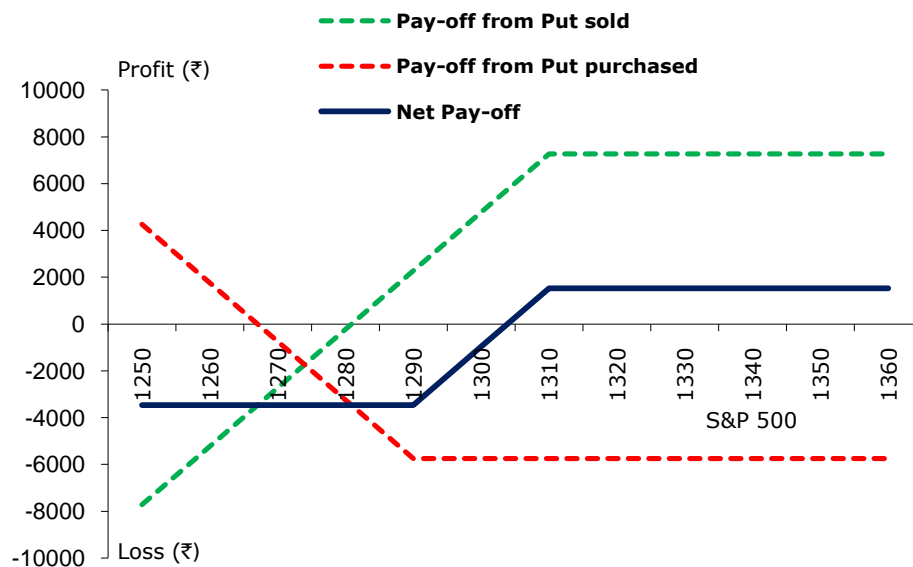


- View : Moderately bullish on S&P 500
- Strategy : Sell OTM Put and buy further OTM put to protect downside
- Risk: Limited to the difference between the two strikes minus net premium received
- Reward : Limited to net premium received
- Breakeven :Strike Price of short put -Net premium received
- Max profit, when: both options unexercised
- Max loss, when: both options exercised

S&P 500 on expiry (₹)	Pay-off from Put sold (₹)	Pay-off from Put purchased (₹)	Net Pay-off (₹)
1260.00	-5225.00	1755.00	-3470.00
1280.00	-225.00	-3245.00	-3470.00
1303.88	5745.00	-5745.00	0.00
1320.00	7275.00	-5745.00	1530.00
1340.00	7275.00	-5745.00	1530.00

Example: Sell 1 OTM Put Option and Buy 1 OTM Put Option *

S&P 500	Spot Price (₹)	1320.00
*Lot size 1 Contract = 250 S&P 500	Sell OTM Put strike price (₹)	1310.00
	Put Premium (₹)	29.10
	Buy OTM Put strike price (₹)	1290.00
	Put Premium (₹)	22.98
	Break Even (₹)	1303.88

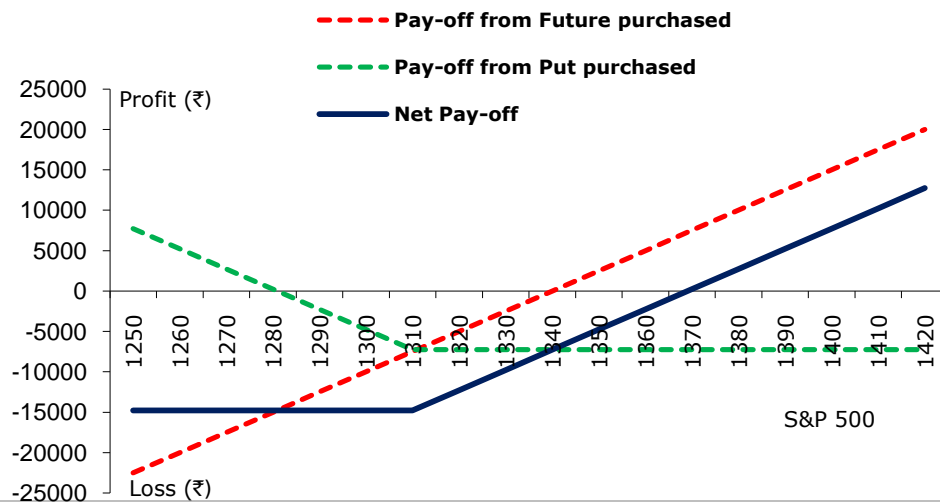


- View : Conservatively bullish on S&P 500
- Strategy : Buy future and buy put option to protect against unexpected fall
- Risk: Limited to Future Price + Put Premium – Put Strike Price
- Reward : Unlimited
- Breakeven :Future Price + Put Premium
- Profit, when: S&P 500 goes up
- Max loss, when: S&P 500 goes down and option exercised

S&P 500 on expiry (₹)	Pay-off from Futures purchased (₹)	Pay-off from Put options (₹)	Net Pay-off (₹)
1300.00	-10000.00	-4775.00	-14775.00
1350.00	2500.00	-7275.00	-4775.00
1369.10	7275.00	-7275.00	0.00
1400.00	15000.00	-7275.00	7725.00
1450.00	27500.00	-7275.00	20225.00

Example: Buy 1 Future and 1 Put Option*

S&P 500	Future Price (₹)	1340.00
*Lot size	Strike Price (₹)	1310.00
1 Contract = 250 S&P 500	Premium (₹)	29.10
	Break Even (₹)	1369.10

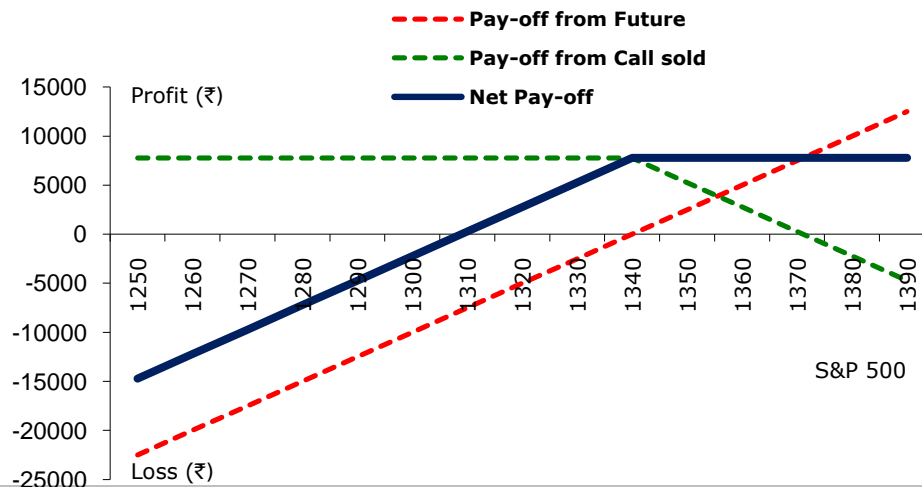


- View : Moderately Bullish on existing long future in portfolio
- Strategy : Sell OTM call option to earn premium
- Risk: Unlimited if S&P 500 falls. Benefit to the extent of premium
- Reward : Limited to Strike price- Future Price Paid + Premium received
- Breakeven :Future price paid –Premium Received
- Max profit, when: S&P 500 goes up and option exercised
- Loss, when: S&P 500 goes down

S&P 500 on expiry (₹)	Pay-off from Futures (₹)	Pay-off from Call sold (₹)	Net Pay-off (₹)
1270.00	-17500.00	7775.00	-9725.00
1290.00	-12500.00	7775.00	-4725.00
1308.90	-7775.40	7775.00	0.00
1330.00	-2500.00	7775.00	5275.00
1350.00	2500.00	5275.00	7775.00
1370.00	7500.00	275.00	7775.00

Example: Existing 1 Long Future and Sell 1 OTM Call Option*

S&P 500	Spot Price (₹)	1320.00
*Lot size	Future Price (₹)	1340.00
1 Contract = 250 S&P 500	Strike Price (₹)	1340.00
	Premium (₹)	31.10
	Break Even (₹)	1308.90

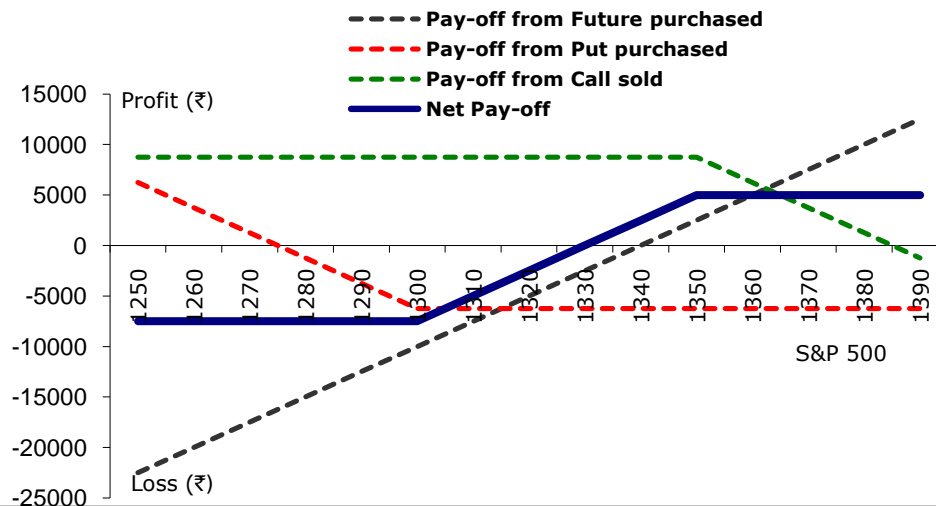


- View : Conservatively bullish
- Strategy : Buy futures, buy put to insure downside, sell call option to partly finance put
- Risk: Limited
- Reward : Limited
- Breakeven :Purchase price of futures – Call premium + Put premium
- Max profit, when: S&P 500 goes up and call option exercised
- Max loss, when: S&P 500 goes down and put option exercised

S&P 500 on expiry (₹)	Pay-off from Futures purchased (₹)	Pay-off from Put purchased (₹)	Pay-off from Call sold (₹)	Net Pay-off (₹)
1270.00	-17500.00	1250.00	8750.00	-7500.00
1290.00	-12500.00	-3750.00	8750.00	-7500.00
1310.00	-7500.00	-6250.00	8750.00	-5000.00
1330.00	-2500.00	-6250.00	8750.00	0.00
1350.00	2500.00	-6250.00	8750.00	5000.00
1370.00	7500.00	-6250.00	3750.00	5000.00

Example: Buy 1 Future and 1Put Option Contract and Sell 1 Call Option Contract*

S&P 500	Future Price (₹)	1340.00
*Lot size	Put Strike Price (₹)	1300.00
1 Contract = 250 S&P 500	Put Premium (₹)	25.00
	Call Strike Price (₹)	1350.00
	Call Premium (₹)	35.00
	Breakeven (₹)	1330.00

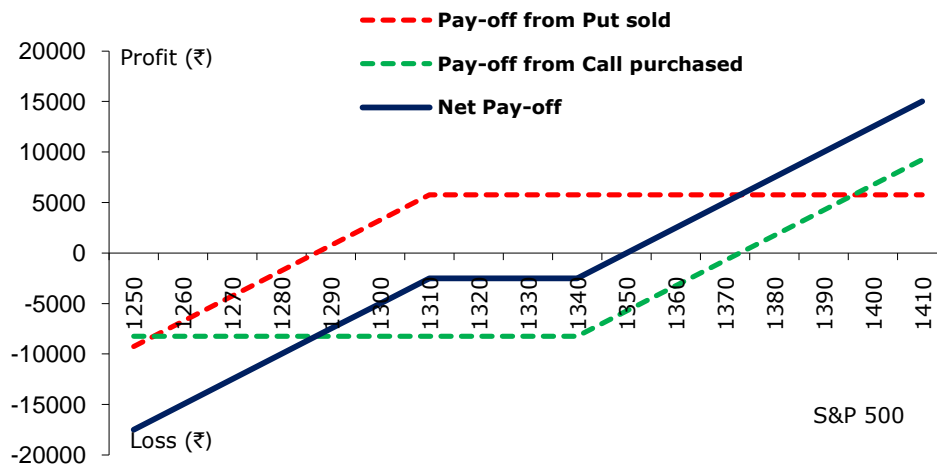


- View : Bullish on S&P 500
- Strategy : Sell OTM put and buy OTM call option
- Risk: Unlimited
- Reward : Unlimited
- Breakeven : Call strike + Net premium
- Profit, when : S&P 500 goes up and call option exercised
- Loss, when : S&P 500- INR goes down and put option exercised

S&P 500 on expiry (₹)	Pay-off from Put sold (₹)	Pay-off from Call purchased (₹)	Net Pay-off (₹)
1290.00	750.00	-8250.00	-7500.00
1310.00	5750.00	-8250.00	-2500.00
1330.00	5750.00	-8250.00	-2500.00
1350.00	5750.00	-5750.00	0
1370.00	5750.00	-750.00	5000.00
1390.00	5750.00	4250.00	10000.00

Example: Sell 1 OTM Put Option and Buy 1 OTM Call Option*

S&P 500	Spot Price (₹)	1320.00
*Lot size 1 Contract = 250 S&P 500	Put Strike Price (₹)	1310.00
	Put Premium (₹)	23.00
	Call Strike Price (₹)	1340.00
	Call Premium (₹)	33.00
	Break Even (₹)	1350.00

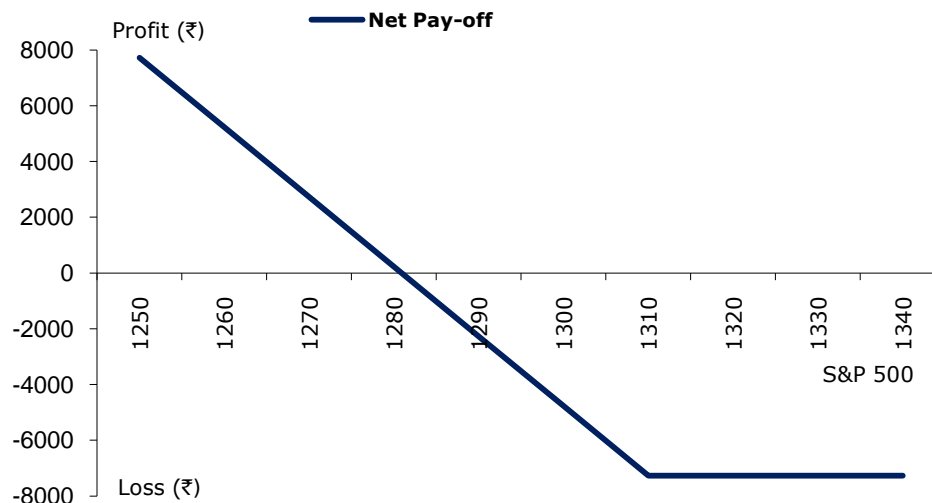


- View : Bearish on S&P 500
- Strategy : Buy put option
- Risk: Limited to premium
- Reward : Unlimited
- Breakeven :Strike Price – Premium
- Profit, when: S&P 500 goes down and option exercised
- Max loss, when: S&P 500 goes up and option not exercised

S&P 500 on expiry (₹)	Premium Pay-off (₹)	Exercise Pay-off (₹)	Net Pay-off (₹)
1250.00	-7275.00	15000.00	7725.00
1270.00	-7275.00	10000.00	2725.00
1280.90	-7275.00	7275.00	0.00
1300.00	-7275.00	2500.00	-4775.00
1320.00	-7275.00	0.00	-7275.00

Example: Buy 1 Put Option*

S&P 500	Spot Price (₹)	1320.00
*Lot size 1 Contract = 250 S&P 500	Strike Price (₹)	1310.00
	Premium (₹)	29.10
	Break Even (₹)	1280.90

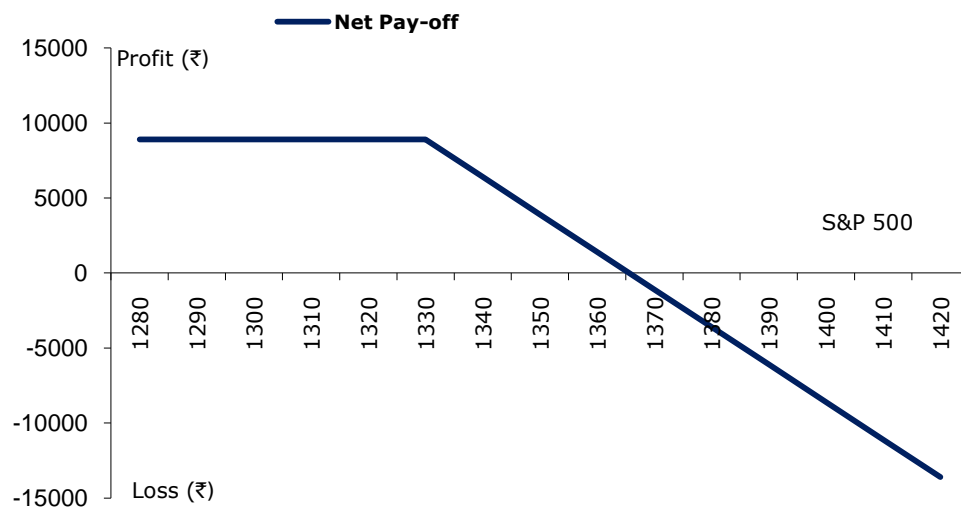


- View : Very bearish on S&P 500
- Strategy : Sell call option
- Risk: Unlimited
- Reward : Limited to premium
- Breakeven : Strike Price + Premium
- Max Profits, when: S&P 500 goes down and option not exercised
- Loss, when: S&P 500 goes up and option exercised

S&P 500 on expiry (₹)	Premium Pay-off (₹)	Exercise Pay-off (₹)	Net Pay-off (₹)
1320.00	8897.50	0.00	8897.50
1340.00	8897.50	2500.00	6397.50
1365.59	8897.50	-8897.50	0.00
1380.00	8897.50	-12500.00	-3602.50
1400.00	8897.50	-17500.00	-8602.50

Example: Sell 1 Call Option*

S&P 500	Spot Price (₹)	1320.00
*Lot size 1 Contract = 250 S&P 500	Strike Price (₹)	1330.00
	Premium (₹)	35.59
	Break Even (₹)	1365.59

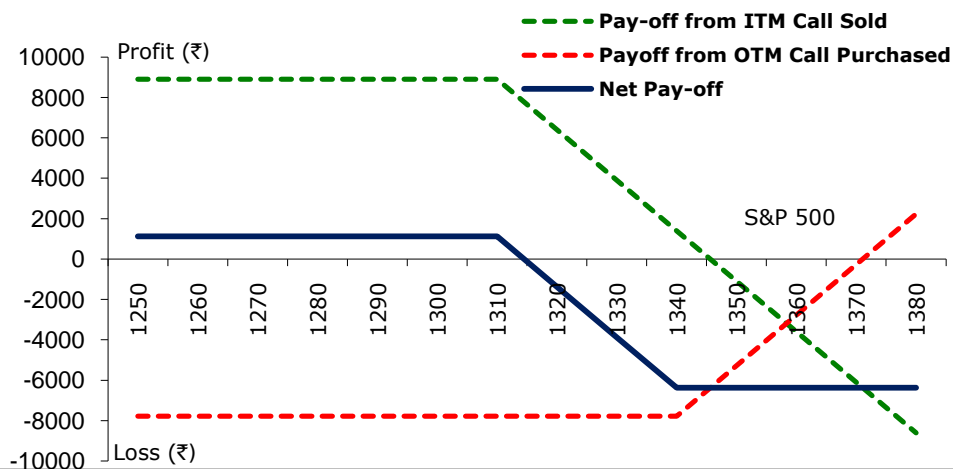


- View : Mildly Bearish on S&P 500
- Strategy : Sell ITM Call and buy OTM Call option to protect against unexpected rise
- Risk: Limited to the difference between the two strikes minus net premium
- Reward : Limited to the net premium received
- Breakeven :Strike Price of Short call + Net premium received
- Max profit, when: S&P 500 goes down and both options not exercised
- Max loss, when: S&P 500 goes up and both options exercised

S&P 500 on expiry (₹)	Pay-off from ITM Call Sold (₹)	Pay-off from OTM Call Purchased (₹)	Net Pay-off (₹)
1270.00	8897.50	-7775.00	1122.50
1290.00	8897.50	-7775.00	1122.50
1314.49	7775.00	-7775.00	0.00
1330.00	3897.50	-7775.00	-3877.50
1350.00	-1102.50	-5275.00	-6377.50
1370.00	-6102.50	-275.00	-6377.50

Example: Sell 1 ITM Call Option and Buy 1 OTM Call Option*

S&P 500	Spot Price (₹)	1320.00
*Lot size 1 Contract = 250 S&P 500	Sell ITM Call Strike Price (₹)	1310.00
	Call Premium (₹)	35.59
	Buy OTM Call Strike Price(₹)	1340.00
	Call Premium (₹)	31.10
	Break Even (₹)	1314.49

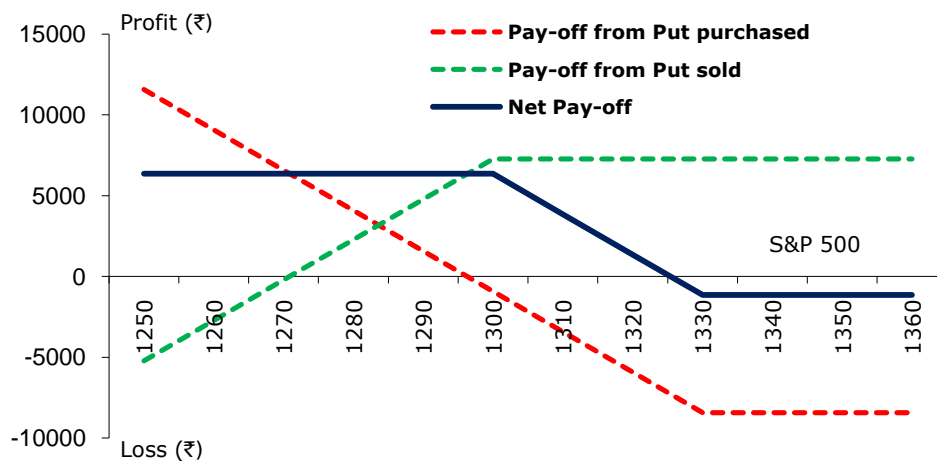


- View : Moderately Bearish on S&P 500
- Strategy : Buy ITM Put and sell OTM Put option to reduce cost and breakeven of ITM Put
- Risk: Limited to net premium paid
- Reward : Limited to the difference between the two strikes minus net premium paid
- Breakeven :Strike price of long Put -Net premium paid
- Max profit, when: S&P 500 goes down and both options exercised
- Max loss, when: S&P 500 goes up and both options unexercised

S&P 500 on expiry (₹)	Pay-off from ITM Put purchased (₹)	Pay-off from OTM Put sold (₹)	Net Pay-off (₹)
1280.00	4072.50	2275.00	6347.50
1300.00	-927.50	7275.00	6347.50
1320.00	-5927.50	7275.00	1347.50
1325.39	-7275.00	7275.00	0.00
1340.00	-8427.50	7275.00	-1152.50
1360.00	-8427.50	7275.00	-1152.50

Example: Buy 1 ITM Put Option and Sell 1 OTM Put Option*

S&P 500	Spot Price (₹)	1320.00
*Lot size 1 Contract = 250 S&P 500	Buy ITM Put Strike Price (₹)	1330.00
	Put Premium (₹)	33.71
	Sell OTM Put Strike Price (₹)	1300.00
	Put Premium (₹)	29.10
	Break Even (₹)	1325.39

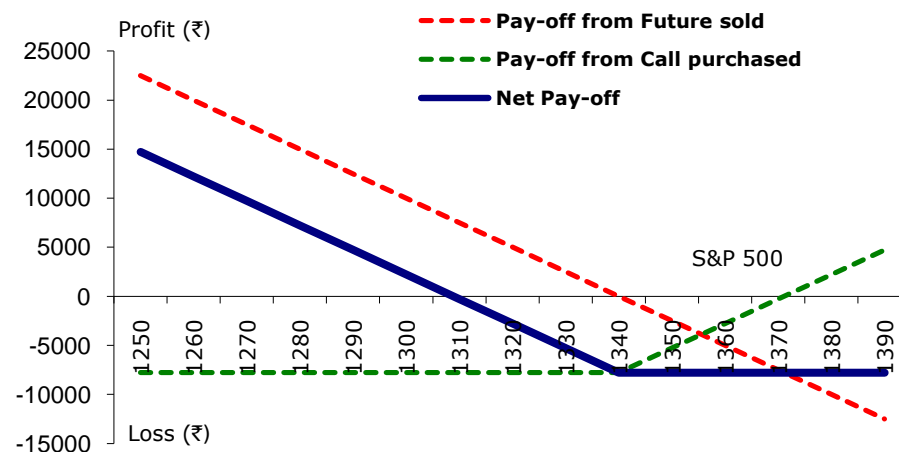


- View : Bearish on S&P 500 but keep protected against any unexpected rise
- Strategy : Sell futures, buy call option to protect against rise in S&P 500
- Risk: Limited to Call strike price -Futures price + Premium
- Reward : Unlimited
- Breakeven :Futures price -Call premium
- Profit, when: S&P 500 goes down and option not exercised
- Max Loss, when: S&P 500 goes up and option exercised

S&P 500 on expiry(₹)	Pay-off on Futures sold (₹)	Pay-off from Call purchased (₹)	Net Pay-off (₹)
1270.00	17500.00	-7775.00	9725.00
1290.00	12500.00	-7775.00	4725.00
1308.90	7775.00	-7775.00	0.00
1330.00	2500.00	-7775.00	-5275.00
1350.00	-2500.00	-5275.00	-7775.00
1370.00	-7500.00	-275.00	-7775.00

Example: Sell 1 Future and Buy 1 Call Option*

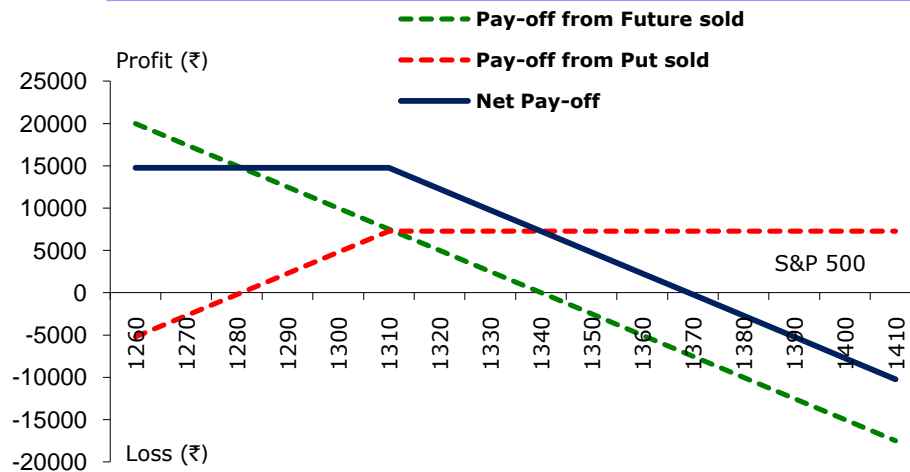
S&P 500	Future Price (₹)	1340.00
*Lot size	Buy Call Strike Price (₹)	1340.00
1 Contract = 250 S&P 500	Call Premium (₹)	31.10
	Breakeven (₹)	1308.90



- View : Neutral to Bearish on S&P 500
- Strategy : Sell futures, Sell OTM put option to earn premium
- Risk: Unlimited
- Reward : Future price – Strike price + Put premium
- Breakeven :Futures price + Premium received
- Max Profit, when: S&P 500 goes down and option exercised
- Loss, when: S&P 500 goes up and option not exercised

S&P 500 on expiry (₹)	Pay-off from Futures sold(₹)	Pay-off from Put sold (₹)	Net Pay-off (₹)
1290.00	12500.00	2275.00	14775.00
1310.00	7500.00	7275.00	14775.00
1330.00	2500.00	7275.00	9775.00
1350.00	-2500	7275.00	4775.00
1369.10	-7275.00	7275.00	0.00
1390.00	-12500.00	7275.00	-5225.00

Example: Sell 1 Future and Sell 1 Put Option *		
S&P 500	Future Price(₹)	1340.00
*Lot size	Put Strike Price (₹)	1310.00
1 Contract = 250 S&P 500	Put Premium (₹)	29.10
	Breakeven (₹)	1369.10

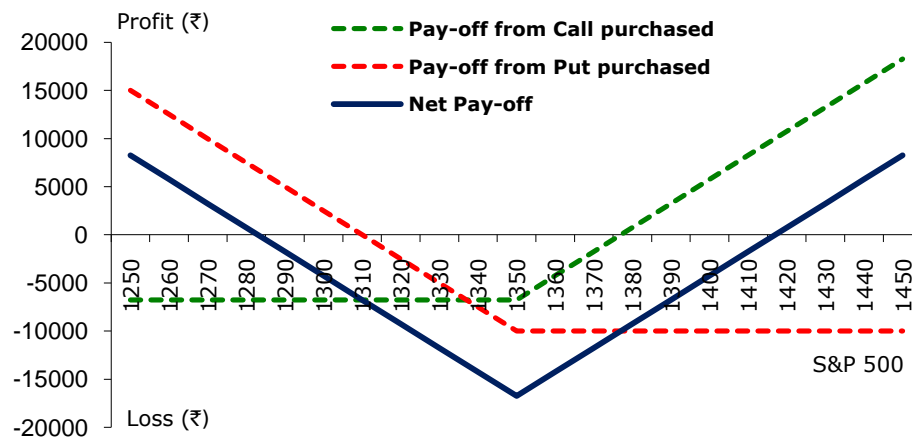


- View : S&P 500 will experience significant volatility
- Strategy : Buy call and buy put option of same strike price
- Risk: Limited to Premium paid
- Reward : Unlimited
- Breakeven :Upper BEP = Strike Price of Long Call + Net Premium Paid
Lower BEP = Strike Price of Long Put - Net Premium Paid
- Profit, when: One of the option exercised
- Max Loss, when: Both the option not exercised

S&P 500 on expiry (₹)	Pay-off from Call purchased (₹)	Pay-off from Put purchased (₹)	Net Pay-off (₹)
1250.00	-6750.00	15000.00	8250.00
1270.00	-6750.00	10000.00	3250.00
1283.00	-6750.00	6750.00	0
1320.00	-6750.00	-2500.00	-9250.00
1370.00	-1750.00	-10000.00	-11750.00
1417.00	10000.00	-10000.00	0
1440.00	15750.00	-10000.00	5750.00
1450.00	18250.00	-10000.00	8250.00

Example: Buy 1 Call & Buy 1 Put Option at same strike

S&P 500	Spot Price (₹)	1320.00
*Lot size	Call and Put Strike Price (₹)	1350.00
1 Contract = 250 S&P 500	Call Premium (₹)	27.00
	Put Premium (₹)	40.00
	Upper BEP (₹)	1417.00
	Lower BEP (₹)	1283.00

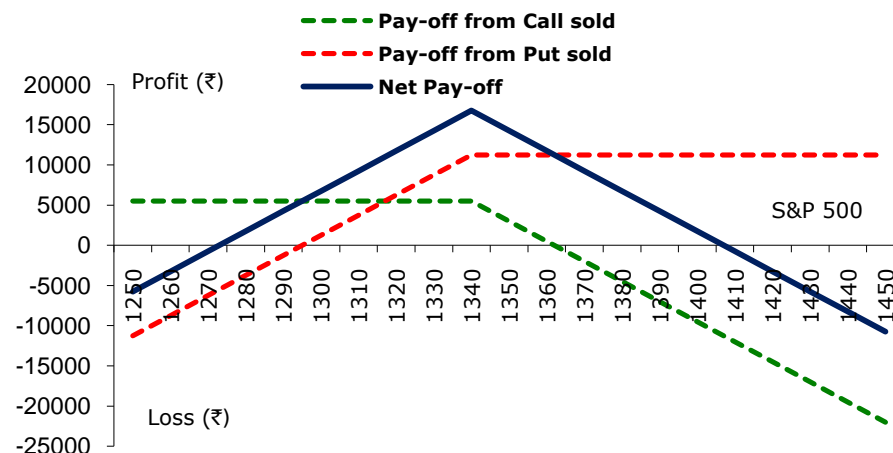


- View : S&P 500 will experience very little volatility
- Strategy : Sell Call and sell Put option of same strike price
- Risk: Unlimited
- Reward : Limited to Premium received
- Breakeven :Upper BEP = Strike price of short call + Net premium received
Lower BEP = Strike price of short put - Net premium received
- Max Profit, when: Both the options not exercised
- Loss, when: one of the options exercised

S&P 500 on expiry (₹)	Pay-off from Call sold (₹)	Pay-off from Put sold (₹)	Net Pay-off (₹)
1250.00	5500.00	-11250.00	-5750.00
1273.00	5500.00	-5500.00	0
1300.00	5500.00	1250.00	6750.00
1350.00	3000.00	11250.00	14250.00
1390.00	-7000.00	11250.00	4250.00
1407.00	-11250.00	11250.00	0
1430.00	-17000.00	11250.00	-5750.00
1450.00	-22000.00	11250.00	-10750.00

Example: Sell 1 Call & Sell 1 Put Option at same strike

S&P 500	Spot Price (₹)	1320.00
*Lot size	Call and Put Strike Price (₹)	1340.00
1 Contract = 250 S&P 500	Call Premium (₹)	22.00
	Put Premium (₹)	45.00
	Upper BEP (₹)	1407.00
	Lower BEP (₹)	1273.00

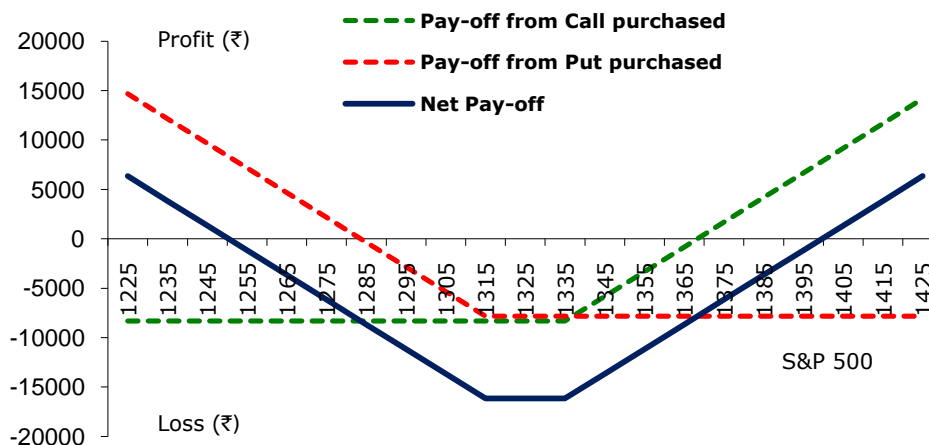


- View : S&P 500 will experience significant volatility
- Strategy : Buy slight OTM call and put option.
- Risk: Limited to premium paid
- Reward : Unlimited
- Breakeven :Upper BEP = Strike Price of Long Call + Net Premium Paid
Lower BEP = Strike Price of Long Put - Net Premium Paid
- Profit, when: One of the option exercised
- Max Loss, when: Both the option not exercised

S&P 500 on expiry (₹)	Pay-off from call purchased (₹)	Pay-off from put purchased (₹)	Net Pay-off (₹)
1225.00	-8322.50	14662.50	6340.00
1250.36	-8322.50	8322.50	0.00
1295.00	-8322.50	-2837.50	-11160.00
1325.00	-8322.50	-7837.50	-16160.00
1375.00	1677.50	-7837.50	-6160.00
1399.64	7837.50	-7837.50	0.00
1415.00	11677.50	-7837.50	3840.00
1425.00	14177.50	-7837.50	6340.00

Example: Buy 1 Call & 1 Put Option at same strike

S&P 500	Spot Price (₹)	1320.00
*Lot size	Call Strike Price (₹)	1335.00
1 Contract = 250 S&P 500	Call Premium (₹)	33.29
	Put Strike Price (₹)	1315.00
	Put Premium (₹)	31.35
	Upper BEP (₹)	1399.64
	Lower BEP (₹)	1250.36

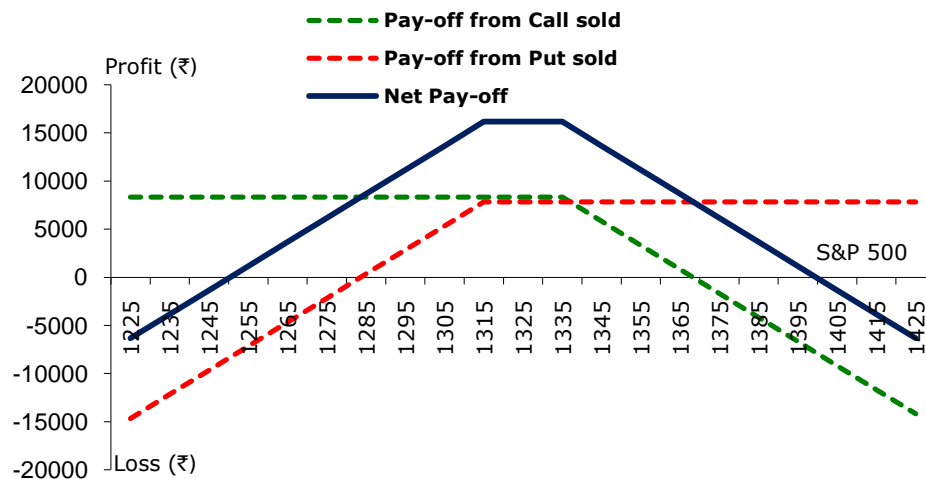


- View : S&P 500 will experience very little volatility.
- Strategy : Sell OTM Call and Put option
- Risk: Unlimited
- Reward : Limited to premium received
- Breakeven : Upper BEP = Strike Price of Long Call + Net Premium Received
Lower BEP = Strike Price of Long Put - Net Premium Received
- Max Profit, when: Both the options not exercised
- Loss: When one of the options exercised

S&P 500 on expiry (₹)	Pay-off from call sold (₹)	Pay-off from put sold (₹)	Net Pay-off (₹)
1225.00	8322.50	-14662.50	-6340.00
1250.36	8322.50	-8322.50	0.00
1295.00	8322.50	2837.50	11160.00
1325.00	8322.50	7837.50	16160.00
1375.00	-1677.50	7837.50	6160.00
1399.64	-7837.50	7837.50	0.00
1415.00	-11677.50	7837.50	-3840.00
1425.00	-14177.50	7837.50	-6340.00

Example: Sell 1 Call & Sell 1 Put Option at same strike

S&P 500	Spot Price (₹)	1320.00
*Lot size	Call Strike Price (₹)	1335.00
1 Contract = 250 S&P 500	Call Premium (₹)	33.29
	Put Strike Price (₹)	1315.00
	Put Premium (₹)	31.35
	Upper BEP (₹)	1399.64
	Lower BEP (₹)	1250.36

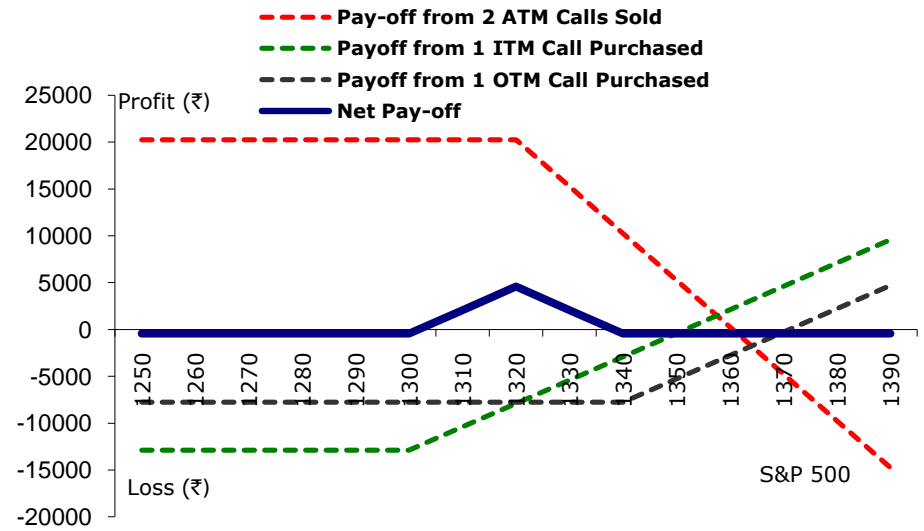


- View : Neutral on S&P 500 direction and bearish on volatility
- Strategy : Sell 2 ATM Call, Buy 1 ITM Call and Buy 1 OTM Call
- Risk: Limited to net premium paid
- Reward : Limited to difference between adjacent strikes minus net premium debit
- Breakeven : Upper BEP = Higher Strike Price - Net Premium
Lower BEP = Lower Strike Price + Net Premium
- Profit, when: ITM call exercised and other options not exercised
- Max Loss;, when: all options exercised or all options not exercised

S&P 500 on expiry (₹)	Pay-off from 2 ATM Calls Sold (₹)	Payoff from 1 ITM Call purchased (₹)	Payoff from 1 OTM Call purchased (₹)	Net Pay-off (₹)
1270.00	20250.00	-12902.50	-7775.00	-427.50
1290.00	20250.00	-12902.50	-7775.00	-427.50
1301.71	20250.00	-12475.00	-7775.00	0.00
1320.00	20250.00	-7902.50	-7775.00	4572.50
1338.29	11105.00	-3330.00	-7775.00	0.00
1350.00	5250.00	-402.50	-5275.00	-427.50
1370.00	-4750.00	4597.50	-275.00	-427.50

Example Sell 2 ATM Call, Buy 1 ITM Call, Buy 1 OTM Call

S&P 500	Spot Price	1320.00
*Lot size	Sell ATM Call Strike (₹)	1320.00
1 Contract = 250 S&P 500	Call Premium (₹)	40.50
	Buy ITM Call Strike (₹)	1300.00
	Call Premium (₹)	51.61
	Buy OTM Call Strike (₹)	1340.00
	Call Premium (₹)	31.10
	Upper BEP (₹)	1338.29
	Lower BEP (₹)	1301.71

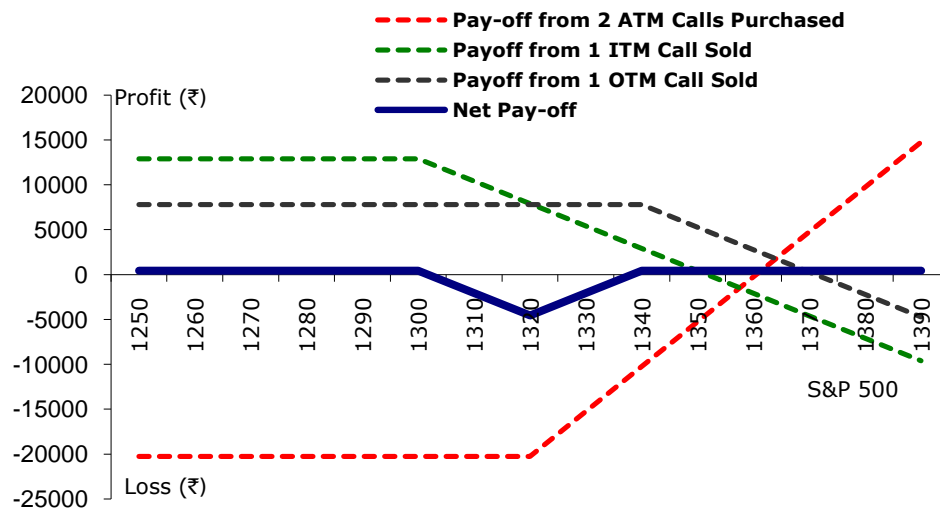


- View : Neutral on S&P 500 direction and bullish on volatility
- Strategy : Buy 2 ATM Call, Sell 1 ITM Call and Sell 1 OTM Call
- Risk: Limited to difference between adjacent strikes minus net premium received
- Reward : Limited to net premium received
- Breakeven : Upper BEP = Higher Strike Price - Net Premium Lower BEP = Lower Strike Price + Net Premium
- Max Profit, when: all options exercised or all options not exercised
- Loss, when: ITM call exercised and other options not exercised

S&P 500 on expiry (₹)	Pay-off from 2 ATM Calls Purchased (₹)	Payoff from 1 ITM Call sold (₹)	Payoff from 1 OTM Call sold (₹)	Net Pay-off (₹)
1270.00	-20250.00	12902.50	7775.00	427.50
1290.00	-20250.00	12902.50	7775.00	427.50
1301.71	-20250.00	12475.00	7775.00	0.00
1320.00	-20250.00	7902.50	7775.00	-4572.50
1338.29	-11105.00	3330.00	7775.00	0.00
1350.00	-5250.00	402.50	5275.00	427.50
1370.00	4750.00	-4597.50	275.00	427.50

Example: Buy 2 ATM Call, Sell 1 ITM Call, Sell 1 OTM Call

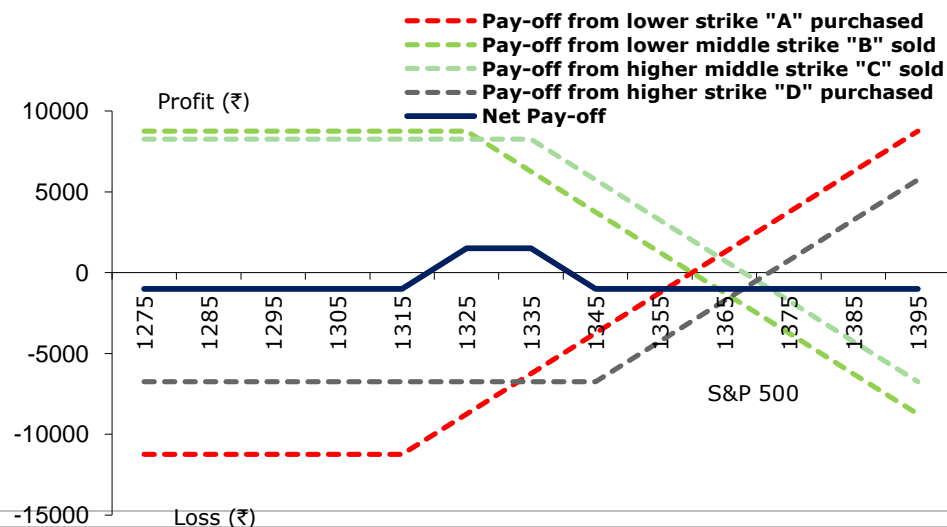
S&P 500	Spot Price	1320.00
*Lot size 1 Contract = 250 S&P 500	Buy ATM Call Strike (₹)	1320.00
	Call Premium (₹)	40.50
	Sell ITM Call Strike (₹)	1300.00
	Call Premium (₹)	51.61
	Sell OTM Call Strike (₹)	1340.00
	Call Premium (₹)	31.10
	Upper BEP (₹)	1338.29
	Lower BEP (₹)	1301.71



- View : Range bound market
- Strategy : Buy 1 ITM Call (Lower strike “A”), Sell 1 ITM Call (Lower middle “B”), Sell 1 OTM Call (Higher middle “C”), Buy 1 OTM Call (Higher strike “D”)
- Risk: Limited to difference between the lower strike spread less the higher strike spread less premium paid
- Reward :Limited. Max profit when S&P 500 between “B” and “C”
- Breakeven : Upper BEP = Highest Strike Price - Net Premium. Lower BEP = Lowest Strike Price + Net Premium
- Max Profit, when: option “A & B” exercised
- Max Loss, when: all options exercised or all options not exercised

S&P 500 on expiry (₹)	Pay-off from “A” (₹)	Pay-off from “B” (₹)	Pay-off from “C” (₹)	Pay-off from “D” (₹)	Net Pay-off (₹)
1285.00	-11250.00	8750.00	8250.00	-6750.00	-1000.00
1305.00	-11250.00	8750.00	8250.00	-6750.00	-1000.00
1319.00	-10250.00	8750.00	8250.00	-6750.00	0.00
1325.00	-8750.00	8750.00	8250.00	-6750.00	1500.00
1335.00	-6250.00	6250.00	8250.00	-6750.00	1500.00
1341.00	-4750.00	4750.00	6750.00	-6750.00	0.00
1355.00	-1250.00	1250.00	3250.00	-4250.00	-1000.00
1375.00	3750.00	-3750.00	-1750.00	750.00	-1000.00

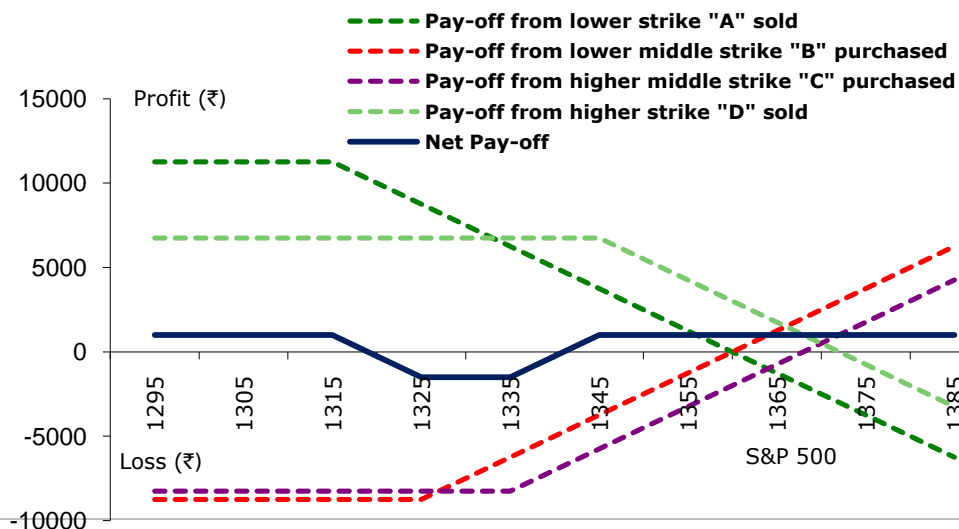
S&P 500	Spot Price	1320.00
*Lot size 1 Contract = 250 S&P 500	Buy ITM Call Strike “A” (₹)	1315.00
	Call Premium (₹)	45.00
	Sell ITM Call Strike “B” (₹)	1325.00
	Call Premium (₹)	35.00
	Sell OTM Call Strike “C” (₹)	1335.00
	Call Premium (₹)	33.00
	Buy OTM Call Strike “D” (₹)	1345.00
	Call Premium (₹)	27.00
	Upper BEP (₹)	1341.00
	Lower BEP (₹)	1319.00



- View : Market will break-out trading range, but direction is uncertain
- Strategy : Sell 1 ITM Call (Lower strike “A”), Buy 1 ITM Call (Lower middle “B”), Buy 1 OTM Call (Higher middle “C”), Sell 1 OTM Call (Higher strike “D”)
- Risk: Limited. Max loss when S&P 500 between “B” and “C”
- Reward :Limited. Price move above the “D” or below “A”
- Breakeven : Upper BEP = Highest Strike Price - Net Premium
Lower BEP = Lowest Strike Price + Net Premium
- Max Profit, when: all options exercised or all options not exercised
- Max Loss, when: option “A & B” exercised

S&P 500 on expiry (₹)	Pay-off from “A” (₹)	Pay-off from “B” (₹)	Pay-off from “C” (₹)	Pay-off from “D” (₹)	Net Pay-off (₹)
1285.00	11250.00	-8750.00	-8250.00	6750.00	1000.00
1305.00	11250.00	-8750.00	-8250.00	6750.00	1000.00
1319.00	10250.00	-8750.00	-8250.00	6750.00	0.00
1325.00	8750.00	-8750.00	-8250.00	6750.00	-1500.00
1335.00	6250.00	-6250.00	-8250.00	6750.00	-1500.00
1341.00	4750.00	-4750.00	-6750.00	6750.00	0.00
1355.00	1250.00	-1250.00	-3250.00	4250.00	1000.00
1375.00	-3750.00	3750.00	1750.00	-750.00	1000.00

S&P 500	Spot Price	1320.00
*Lot size	Sell ITM Call Strike “A” (₹)	1315.00
1 Contract = 250	Call Premium (₹)	45.00
S&P 500	Buy ITM Call Strike “B” (₹)	1325.00
	Call Premium (₹)	35.00
	Buy OTM Call Strike “C” (₹)	1335.00
	Call Premium (₹)	33.00
	Sell OTM Call Strike “D” (₹)	1345.00
	Call Premium (₹)	27.00
	Upper BEP (₹)	1341.00
	Lower BEP (₹)	1319.00

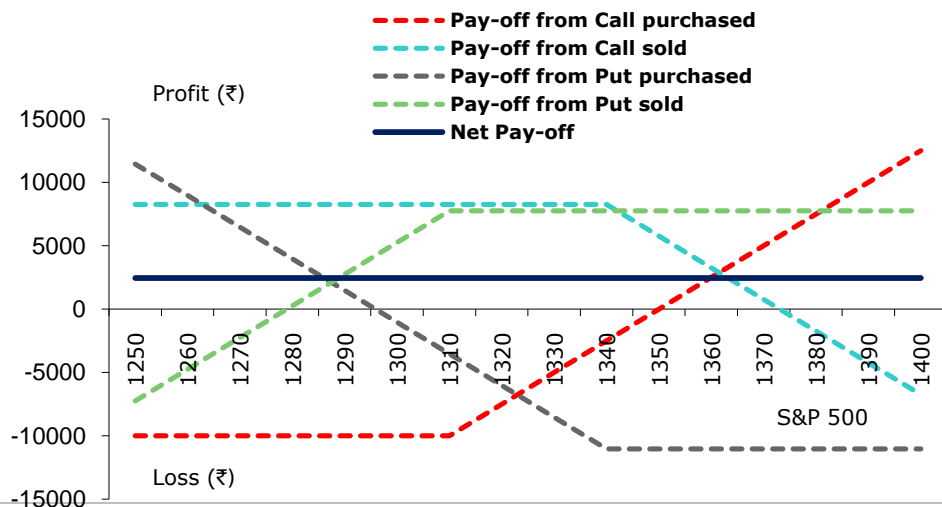


- To take advantage of temporary mis-pricing of options in the market.
- Strategy : Long Call “A”, short Call “B”, long Put “B” and Short Put “A”; Where $B > A$
- Risk: None, No effect of price change
- Reward : Fixed $((B-A) - \text{Net Premium Debit})$
- Max Profit, when: Always
- Max Loss, when: No effect of price change

Example: Buy 1 Call ,Sell 1 Call, Buy 1 Put & Sell 1 Put *

S&P 500	Spot Price	1320.00
*Lot size 1 Contract = 250 S&P 500	Premium for Call Strike Price 1310 (₹)	40.00
	Premium for Call Strike Price 1340 (₹)	33.00
	Premium for Put Strike Price 1340 (₹)	44.20
	Premium for Put Strike Price 1310 (₹)	31.00

S&P 500 on expiry (₹)	Pay off from Call Bought (₹)	Pay off from Call Sold (₹)	Pay off from Put Bought (₹)	Pay off from Put Sold (₹)	Net Pay-off (₹)
1310.00	-10000.00	8250.00	-3550.00	7750.00	2450.00
1330.00	-5000.00	8250.00	-8550.00	7750.00	2450.00
1350.00	0.00	5750.00	-11050.00	7750.00	2450.00
1370.00	5000.00	750.00	-11050.00	7750.00	2450.00
1390.00	10000.00	-4250.00	-11050.00	7750.00	2450.00
1410.00	15000.00	-9250.00	-11050.00	7750.00	2450.00
1430.00	20000.00	-14250.00	-11050.00	7750.00	2450.00

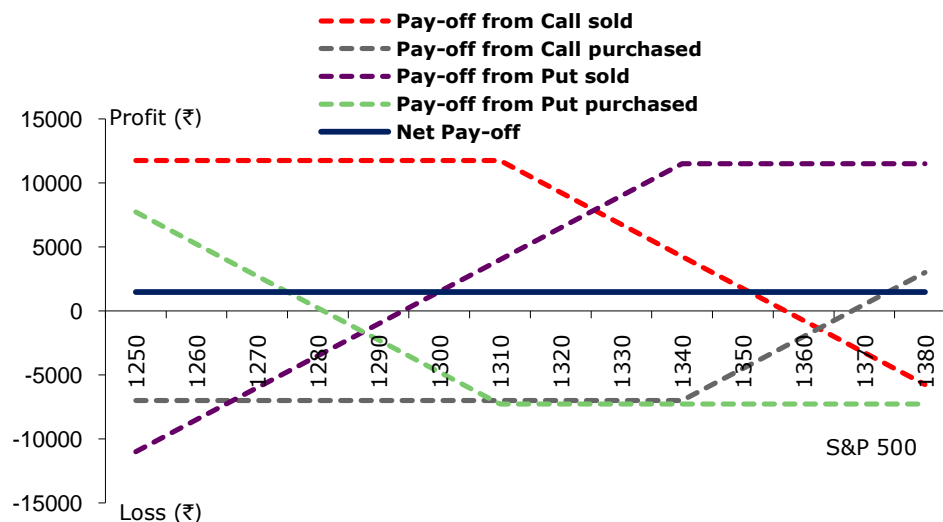


- To take advantage of temporary mis-pricing of options in the market.
- Strategy : Long Call “B”, Short Call “A”, Long Put “A” and Short Put “B”; Where B>A
- Risk: None, No effect of price change
- Reward : Fixed ((B-A)-Net Premium Credit)
- Max Profit, when: Always
- Max Loss, when: Never. No effect of price change

Example: Buy 1 Call ,Sell 1 Call, Buy 1 Put & Sell 1 Put *

S&P 500	Spot Price	1320.00
*Lot size 1 Contract = 250 S&P 500	Premium for Call Strike Price 1310 (₹)	47.00
	Premium for Call Strike Price 1340 (₹)	28.00
	Premium for Put Strike Price 1340 (₹)	46.00
	Premium for Put Strike Price 1310 (₹)	29.10

S&P 500 on expiry (₹)	Pay off from Call Bought (₹)	Pay off from Call Sold (₹)	Pay off from Put Bought (₹)	Pay off from Put Sold (₹)	Net Pay-off (₹)
1310.00	11750.00	-7000.00	4000.00	-7275.00	1475.00
1330.00	6750.00	-7000.00	9000.00	-7275.00	1475.00
1350.00	1750.00	-4500.00	11500.00	-7275.00	1475.00
1370.00	-3250.00	500.00	11500.00	-7275.00	1475.00
1390.00	-8250.00	5500.00	11500.00	-7275.00	1475.00
1410.00	-13250.00	10500.00	11500.00	-7275.00	1475.00
1430.00	-18250.00	15500.00	11500.00	-7275.00	1475.00

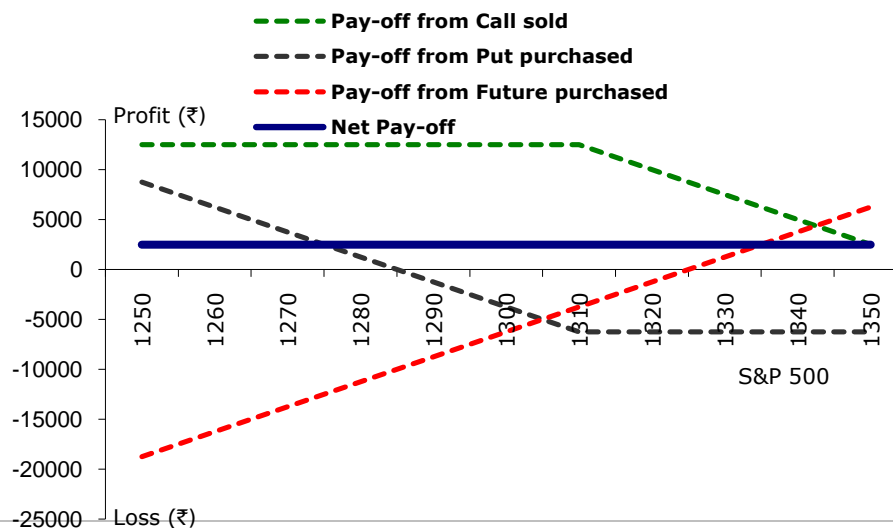


- To take advantage of temporary mis-pricing of options in the market.
- Relation: $\text{Call} + \text{PV (Strike)} = \text{Put} + \text{PV (Futures)}$
- Strategy : Sell Call & Invest in Bond and Buy Put & Futures if $\text{Call} + \text{PV (Strike)} > \text{Put} + \text{Futures}$
- Sell Put & Futures and Buy Call & Invest in Bond if $\text{Call} + \text{PV (Strike)} < \text{Put} + \text{Futures}$
- Risk: None, No effect of price change
- Reward : Limited to the price difference
- Max Profit, when: Always
- Max Loss, when: No effect of price change

S&P 500 on expiry (₹)	Pay- off from Future (₹)	Pay-off from Call (₹)	Pay-off from Put (₹)	Net Pay-off (₹)
1300.00	-6250.00	12500.00	-3750.00	2500.00
1320.00	-1250.00	10000.00	-6250.00	2500.00
1340.00	3750.00	5000.00	-6250.00	2500.00
1360.00	8750.00	0.00	-6250.00	2500.00
1380.00	13750.00	-5000.00	-6250.00	2500.00
1400.00	18750.00	-10000.00	-6250.00	2500.00
1420.00	23750.00	-15000.00	-6250.00	2500.00

Example: Sell 1 Call ,Invest Cash , Buy 1 Put & Buy 1 Future Contract *

S&P 500	Futures Price	1325
*Lot size 1 Contract = 250 S&P 500	Premium for Call Strike Price 1310 (₹)	50.00
	Premium for Put Strike Price 1310 (₹)	25.00
	Interest Rate (per Annum)%	5.00
	Cash to be invested (PV of Strike)	1304



At-the money (ATM): Any option is at-the money if the strike price is equal to the market price of underlying.

Break-Even Point (BEP): The price at which an option strategy results in neither a profit nor loss.

Call: An option contract that gives the holder the right to buy the underlying at a specified price for a certain, fixed period of time.

In-the-money (ITM): A call option is in-the-money if the strike price is less than the market price of the underlying. A put option is in-the-money if the strike price is greater than the market price of the underlying.

Long position: A position wherein an investor is a net holder in a particular options series.

Out-of-the-money (OTM): A call option is out-of-the-money if the strike price is greater than the market price of the underlying . A put option is out-of-the-money if the strike price is less than the market price of the underlying.

Premium: The price a put or call buyer must pay to a put or call seller (writer) for an option contract. Market supply and demand forces determine the premium.

Put: An option contract that gives the holder the right to sell the underlying at a specified price for a certain, fixed period of time.

Strike price or exercise price: The stated price per quantity for which the underlying may be purchased (in the case of a call) or sold (in the case of a put) by the option holder upon exercise of the option contract.

Synthetic position: A strategy involving two or more instruments that has the same risk/reward profile as a strategy involving only one instrument.

Time decay or erosion: A term used to describe how the time value of an option can “decay” or reduce with the passage of time.

Volatility: A measure of the fluctuation in the market price of the underlying . Mathematically, volatility is the annualized standard deviation of returns.

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Thank You