## Grovalue Classroom

## 17. Put Backspread.

This option trading strategy involves selling a number of put options and buying more put options of the same underlying stock and expiration date at a lower strike price. It is an unlimited profit, limited risk options trading strategy that is taken when the options trader thinks that the underlying stock will experience significant downside movement in the near term. Construction of this strategy is given as follows:

Sell 1 ITM Put; Buy 2 OTM Put
A 2:1 put backspread can be implemented by buying a number of puts at a higher strike and buying twice the number of puts at a lower strike.

## Example

Suppose XYZ stock is trading at Rs. 48 in June. An options trader executes a 2:1 put backspread by selling a JUL 50 put for Rs. 400 and buying two JUL 45 puts for Rs. 200 each. The net debit/credit taken to enter the trade is zero. On expiration in July, if XYZ stock is trading at Rs. 45 , both the JUL 45 puts expire worthless while the short JUL 50 put expires in the money with Rs. 500 in intrinsic value. Buying back this put to close the position will result in the maximum loss of Rs. 500 for the options trader. If XYZ stock drops to Rs. 40 on expiration in July, all the options will expire in the money. The short JUL 50 put is worth Rs. 1000 and needs to be bought back to close the position. Since the two JUL 45 puts bought is now worth Rs. 500 each, their combined value of Rs. 1000 is just enough to offset the losses from the written put. Therefore, he achieves breakeven at Rs. 40 . below Rs. 40 though, there will be no limit to the gains possible. For example, at Rs.30, each long JUL 45 put will be worth Rs. 1500 while his single short JUL 50 put is only worth Rs. 2000 , resulting in a profit of Rs. 1000 . If the stock price had rallied to Rs. 50 or higher at expiration, all the options involved will expire worthless. Since the net debit to put on this trade is zero, there is no resulting loss.

## Put Backspread Payoff Diagram:



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## Unlimited Profit Potential

This strategy profits when the stock price makes a strong move to the downside beyond the lower breakeven point. There is no limit to the maximum possible profit for the put backspread. The formula for calculating profit is given below:

- Maximum Profit = Unlimited
- Profit Achieved When Price of Underlying < $2 \times$ Strike Price of Long Put - Strike Price of Short Put + Net Premium Received
- $\quad$ Profit $=$ Strike Price of Long Put - Price of Underlying - Max Loss


## Limited Risk

Maximum loss for the put backspread is limited and is incurred when the underlying stock price at expiration is at the strike price of the long puts purchased. At this price, both the long puts expire worthless while the short put expires in the money. Maximum loss is equal to the intrinsic value of the short put plus or minus any debit or credit taken when putting on the spread. The formula for calculating maximum loss is given below:

- Max Loss = Strike Price of Short Put - Strike Price of Long Put - Net Premium Received + Commissions Paid
- Max Loss Occurs When Price of Underlying = Strike Price of Long Put


## Breakeven Point(s)

There are 2 break-even points for the put backspread position. The breakeven points can be calculated using the following formulae.

- Upper Breakeven Point $=$ Strike Price of Short Put
- Lower Breakeven Point = Strike Price of Long Put - Points of Maximum Loss

For more details or any queries kindly contact us on knowledge@grovalue.in

