



ASX

AUSTRALIAN SECURITIES EXCHANGE

Options Strategies

26 Options Strategies
for ASX Energy & Environmental
Product Markets



HOW TO USE THIS BOOKLET

This brochure details more than two dozen strategies for all market conditions, with varying exposures to volatility and with differing potential for profit and loss.

Of course there are various ways to construct most strategies. We have underlined the most common method and used that method in our explanations of Profit, Loss, Volatility and Time Decay. These strategies are generally traded as a combination, meaning all legs are traded at the same time. They can be traded over time to best suit your view.

This booklet contains payoff diagrams for some of the more popular strategies used by option traders.

- Bullish Strategies
- Bearish Strategies
- Neutral Strategies
- Event Driven Strategies
- Combination Strategies.

This strategy booklet is not intended to cover every possible options strategy, but to explain the more popular strategies. It is assumed that you are familiar with option pricing fundamentals, and the concepts of volatility and time decay. Note that for the purpose of simplicity, transaction costs, tax considerations and the cost of funding are not included in the examples.

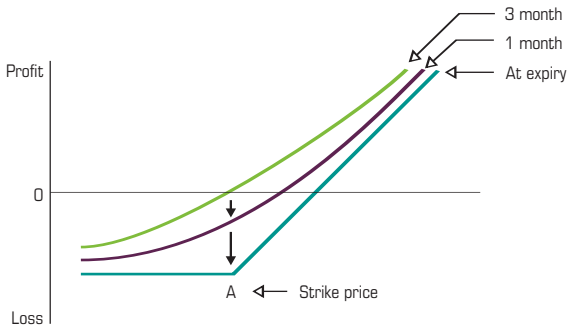
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HOW TO UNDERSTAND THE DIAGRAMS

An illustration is used with each strategy to demonstrate the effect of time decay on the total option premium involved in the position.

The basic diagram in the black shows the profit/loss scale on the left vertical axis. The horizontal zero line in the middle is the break even point, not including transaction costs. Therefore, anything above the line indicates profits, anything below it, losses. The price of the underlying instrument or contract for difference (herein “underlying”) would be represented by a scale along the bottom, with lower prices to the left and higher prices to the right. “A”, “B”, “C” and “D” in the diagrams indicate the strike price(s) involved.

Arrows on the diagrams indicate what impact the decay of option prices over time has on the total position. The green line reflects the situation with three months left until expiration, the maroon line the status with 1 month left and the teal line the situation at expiration, which is also reflected in the orange box at the top of each strategy page. Note that decay accelerates as expiry approaches.



1 LONG CALL

Construction:

Buy 1 Call at strike price A.



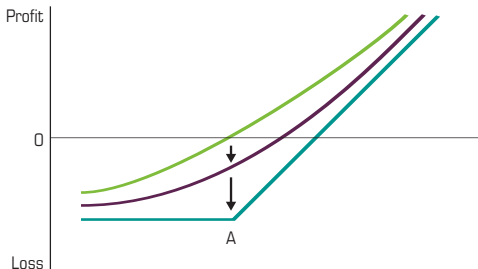
Your Market Outlook: Bullish. The underlying price will rise well above the strike price A. The more bullish your view the further out of the money you can buy to create maximum leverage.

Profit: The profit increases as the market rises. The break-even point will be the options strike price A, plus the premium paid for the option.

Loss: The maximum loss is the premium paid for the option. Any point between the strike price A, and the break-even point you will make a loss although not the maximum loss.

Volatility: The option value will increase as volatility increases (good) and will fall as volatility falls (bad).

Time Decay: As each day passes the value of the option erodes.



2 SHORT PUT

Construction:

Sell 1 Put at strike price A.



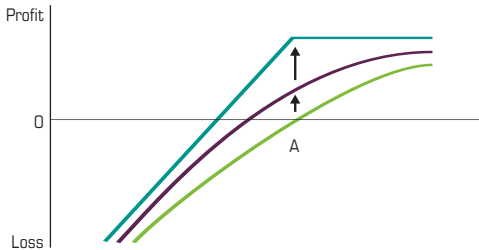
Your Market Outlook: Bullish. The underlying price will not fall below the strike price A. If it does you are obligated to buy at the strike price A, or buy the option back to close.

Profit: The maximum profit is the premium you sold the option for. The break-even point will be the options strike price A, minus the premium received for the option.

Loss: The maximum loss is the strike price A, less the premium received.

Volatility: The option value will increase as volatility increases (bad) and will decrease as volatility decreases (good).

Time Decay: As each day passes the value of the option erodes (good).



3 SYNTHETIC LONG

Construction:

Buy 1 Call and Sell 1 Put both at strike price A.



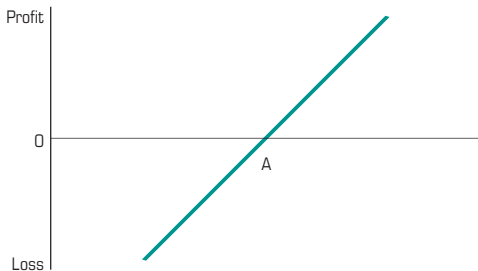
Your Market Outlook: Bullish. The underlying price rise above A and not fall below A. It is similar to holding the underlying.

Profit: The maximum profit is unlimited. As the underlying price rises above the strike price A, so does your profit.

Loss: The maximum loss for this trade is the strike price A, as the underlying price is limited to zero, plus or minus the cost of the trade.

Volatility: You are not affected by volatility.

Time Decay: You are not affected by time decay.



4 LONG SYNTHETIC SPLIT STRIKE

Construction:

Sell 1 Put at strike price A and Buy 1 Call at strike price B.



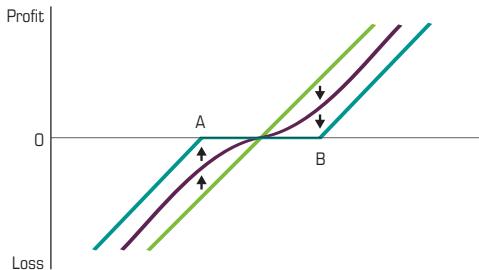
Your Market Outlook: Bullish. The underlying price will rise above B and not fall below A.

Profit: The maximum profit is unlimited. As the underlying price increases above the strike price B, so does your profit.

Loss: The maximum loss for this trade is the strike price A, as the underlying price is limited to zero.

Volatility: Volatility effect is minimal.

Time Decay: It depends on the underlying price. If it is below A, then time decay works for you. If it is above B, then it works against you.



5 BULL SPREAD

Construction:

Buy 1 Call at A and Sell 1 Call at B, or

Buy 1 Put at A and Sell 1 Put at B.



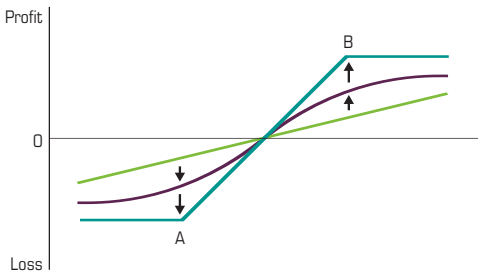
Your Market Outlook: Bullish. The underlying price will expire above B and not below A. The strategy provides protection if your view is wrong.

Profit: The maximum profit is limited to the difference between A and B less the cost of the spread. If A and B are \$1 apart and you bought the spread for \$0.40, then maximum profit is \$0.60.

Loss: The maximum loss is also limited to the cost of the spread (Calls).

Volatility: You are not affected by volatility.

Time Decay: It depends on the underlying price, if it is below A, then time decay works against you. If it is above B, then it works for you.



6 RATIO CALL BACKSPREAD

Construction:

Sell 1 Call at A and Buy 2 Calls at B.



Bullish

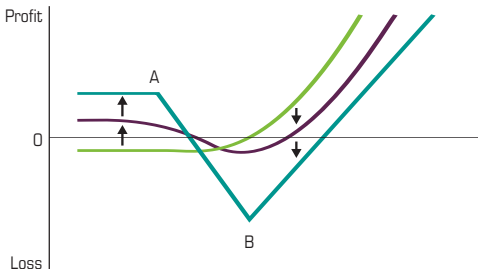
Your Market Outlook: Bullish. The underlying price will expire well above B, the strategy provides protection if the underlying price falls.

Profit: The maximum profit is unlimited on the upside and limited on the downside to the net credit received when opening the trade.

Loss: The maximum loss is at strike price B. It is equal to the difference between A and B less the net credit received.

Volatility: Generally volatility will be beneficial to this trade, as volatility increases the value of Calls increases.

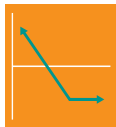
Time Decay: It depends on the underlying price, if it is below A, then time decay works for you on the Sold option. If it is above B, then it works against you on the 2 Bought options.



7 LONG PUT

Construction:

Buy 1 Put at strike price A.



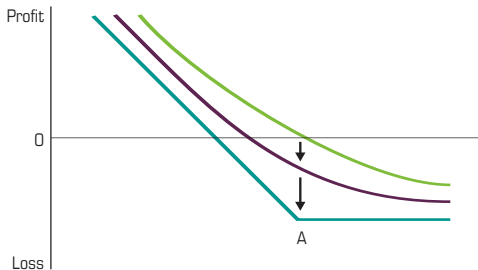
Your Market Outlook: Bearish. The underlying price will expire well below A. It is used to profit from an expected fall in the underlying. This strategy is commonly used to provide protection to your underlying position. If the underlying price falls, the profit from the Put will offset the loss on the underlying position.

Profit: The maximum profit is limited to the strike price A less the cost of the option, as the underlying can only fall as low as zero.

Loss: The maximum loss is equal to the amount of premium paid for the option.

Volatility: The option value will increase as volatility increases (good) and will fall as volatility falls (bad).

Time Decay: As each day passes the value of the option erodes (bad).



8 SHORT CALL

Construction:

Sell 1 Call at strike price A.



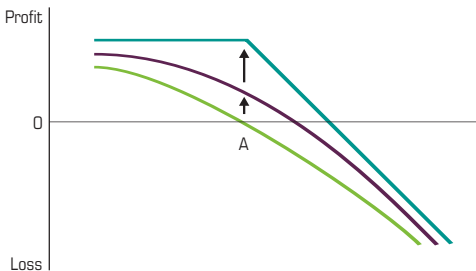
Your Market Outlook: Bearish. The underlying price will expire below the strike price A. If it does you will get to keep the option premium.

Profit: The maximum profit is the premium you sold the option for. The break-even point will be the options strike price A, plus the premium received for the option.

Loss: The maximum loss for this trade is unlimited.

Volatility: The option value will increase as volatility increases (bad) and will decrease as volatility decreases (good).

Time Decay: As each day passes the value of the option erodes (good).



9 SYNTHETIC SHORT

Construction:

Buy 1 Put at A and Sell 1 Call at A.



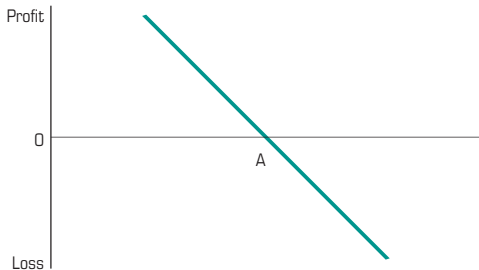
Your Market Outlook: Bearish. The underlying price will fall below the strike price A, but will not rise above that price. It is similar to short selling the underlying.

Profit: The maximum profit is limited to the strike price, as the underlying can't fall below zero. As the underlying price increases above the strike price A, so do your losses.

Loss: The maximum loss for this trade is unlimited.

Volatility: You are not affected by volatility.

Time Decay: You are not affected by time decay.



10 SYNTHETIC SHORT (SPLIT STRIKE)



Construction:

Buy 1 Put at A and Sell 1 Call at B.

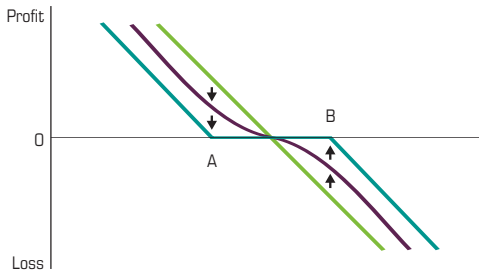
Your Market Outlook: Bearish. The underlying price will fall below the strike price A, and the underlying price will not rise above the strike price B.

Profit: The maximum profit is limited to the strike price A, as the underlying can't fall below zero. As the underlying price increases above the strike price B, so do your losses.

Loss: The maximum loss for this trade is unlimited.

Volatility: Volatility effect is minimal.

Time Decay: It depends on the underlying price, if it is below A, then time decay works against you. If it is above B, then it works for you.



11 BEAR SPREAD



Construction:

Sell 1 Put at A and Buy 1 Put at B, or
Sell 1 Call at A and Buy 1 Call at B.

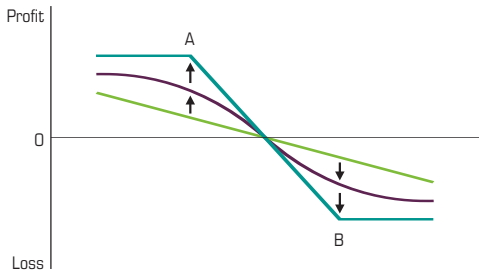
Your Market Outlook: Bearish. The underlying price will expire below A, the strategy provides protection if your view is wrong as your maximum loss is at B, no matter how far above B the underlying price increases.

Profit: The maximum profit is limited to the difference between A and B less the cost of the spread. If A and B are \$1 apart and you bought the spread for \$0.40, then maximum profit is \$0.60.

Loss: The maximum loss is also limited to the cost of the spread.

Volatility: You are not affected by volatility.

Time Decay: It depends on the underlying price, if it is below A, then time decay works for you. If it is above B, then it works against you.



12 PUT RATIO BACKSPREAD

Construction:

Sell 1 Put at B and Buy 2 Puts at A.



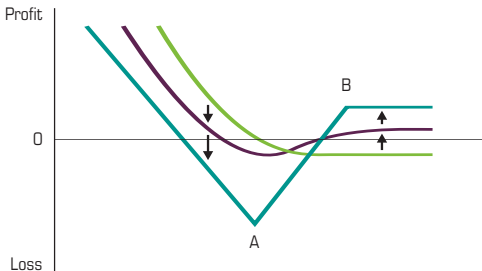
Your Market Outlook: Bearish. The underlying price will expire well below A. The strategy provides protection if the underlying price increases as you will profit from the sold Put.

Profit: The maximum profit is limited on the downside to the strike price plus the net credit received, as the underlying price can't fall below zero. It is limited on the upside to the net credit received when opening the trade.

Loss: The maximum loss is equal to the difference between B and A less the net credit received and it occurs at A, as your bought Puts expire worthless and you lose on the sold Put.

Volatility: Generally volatility will be beneficial on this trade, as volatility increases the value of Puts increases.

Time Decay: It depends on the underlying price, if it is below A, then time decay works against you on the 2 bought options. If it is above B, then it works for you on the 1 sold option.



13 SHORT STRADDLE

Construction:

Sell 1 Call at A and Sell 1 Put at A.



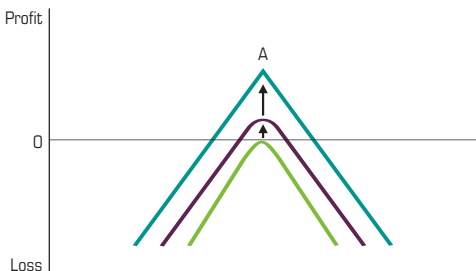
Your Market Outlook: Neutral. The underlying price will expire around the strike price A. If it does you will get to keep the option premium from both sold options. This strategy is also used if your view is that volatility will decrease.

Profit: The maximum profit is the combined total premium you received for the sale of the options. One break-even point will be the strike price A, plus the combined options premium received. The other break-even point will be the strike price A, minus the combined options premium received.

Loss: The maximum loss for this trade is unlimited on the upside and limited on the downside to the strike price, as the underlying can't fall below zero.

Volatility: The option value will decrease as volatility decreases which is good for both options. Alternatively an increase in volatility will be bad for both options.

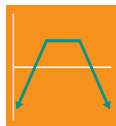
Time Decay: As each day passes the value of the option erodes (good).



14 SHORT STRANGLE

Construction:

Sell 1 Call at B and Sell 1 Put at A.



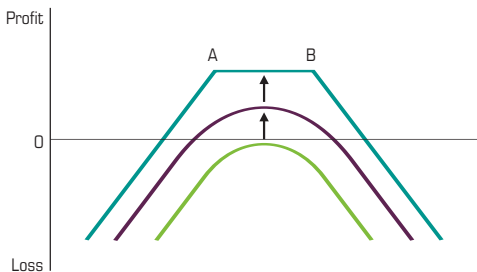
Your Market Outlook: Neutral. The underlying price will expire between the strike prices A and B. If it does you will get to keep the option premium from both sold options. This strategy is also used if your view is that volatility will decrease.

Profit: The maximum profit is the combined total premium you received for the sale of the options. One break-even point will be the strike price A, minus the combined options premium received. The other break-even point will be the strike price B, plus the combined options premium received.

Loss: The maximum loss for this trade is unlimited on the upside and limited on the downside to the strike price, as the underlying can't fall below zero.

Volatility: The option value will decrease as volatility decreases which is good for both options. Alternatively an increase in volatility will be bad for both options.

Time Decay: As each day passes the value of the option erodes (good).



15 LONG BUTTERFLY



Construction (any of the following):

Buy 1 Call at A and Sell 2 Calls at B and Buy 1 Call at C.

Buy 1 Put at A and Sell 2 Puts at B and Buy 1 Put at C.

Buy 1 Call at A and Sell 1 Call and 1 Put at B and Buy 1 Put at C.

Buy 1 Put at A and Sell 1 Put and 1 Call at B and Buy 1 Call at C.

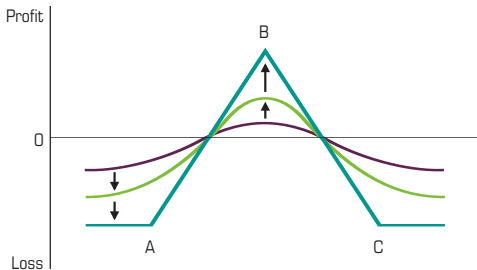
Your Market Outlook: Neutral. The underlying price will expire around the strike price B. This strategy is also used if your view is that volatility will decrease, the bought options at A and C provide protection for the strategy.

Profit: The maximum profit will occur at the strike price B.

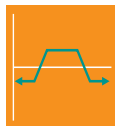
Loss: The maximum loss for this trade is limited. The break-evens are at A plus the cost of the spread and at C less the cost of the spread.

Volatility: The option value will decrease as volatility decreases which is generally good for the strategy. Alternatively an increase in volatility will be generally bad for the strategy.

Time Decay: As each day passes the value of the option erodes (good). Most of the decay will occur in the final month before expiry.



16 LONG CONDOR



Construction (any of the following):

Buy 1 Call at A and Sell 1 Call at B and Sell 1 Call at C and Buy 1 Call at D.

Buy 1 Put at A and Sell 1 Put at B and Sell 1 Put at C and Buy 1 Put at D.

Buy 1 Call at A and Sell 1 Call at B and Sell 1 Put at C and Buy 1 Put at D.

Buy 1 Put at A and Sell 1 Put at B and Sell 1 Call at C and Buy 1 Call at D.

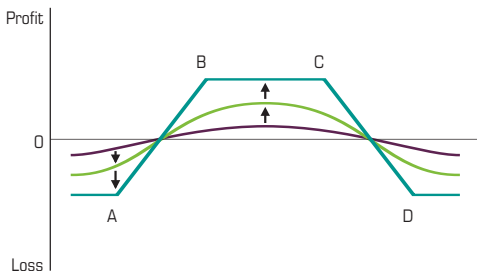
Your Market Outlook: Neutral. The underlying price will expire between the strike prices B and C. This strategy is also used if your view is that volatility will decrease, the bought options at A and D provide protection for the strategy.

Profit: The maximum profit will occur anywhere between the strike price B and C.

Loss: The maximum loss for this trade is limited. The break-evens are at A plus the cost of the spread and at D less the cost of the spread.

Volatility: The option value will decrease as volatility decreases which is generally good for the strategy. Alternatively an increase in volatility will be generally bad for the strategy.

Time Decay: As each day passes the value of the option erodes (good). Most of the decay will occur in the final month before expiry.



17 RATIO CALL SPREAD

Construction:

Buy 1 Call at A and Sell 2 Calls at B.



Your Market Outlook: Neutral. The underlying price will expire around the strike price B. If you are wrong you see the risk as a price fall.

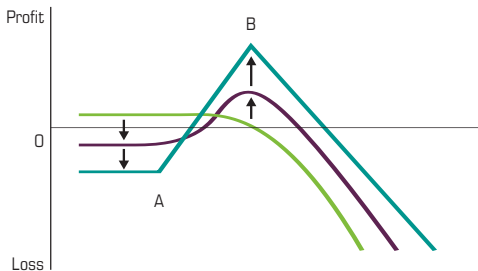
The strategy provides protection if the underlying price falls as you will profit from the sold calls. If the underlying rises strongly you will lose.

Profit: The maximum profit is limited to B minus A minus net cost of position.

Loss: The maximum loss is unlimited on the upside and limited to the net cost of the position on the downside.

Volatility: Generally as volatility decreases this will benefit the position.

Time Decay: It depends on the underlying price, if it is below A, then time decay works against you on the bought option. If it is at B, then it works for you on the 2 sold options.



18 RATIO PUT SPREAD

Construction:

Sell 2 Puts at A and Buy 1 Put at B.



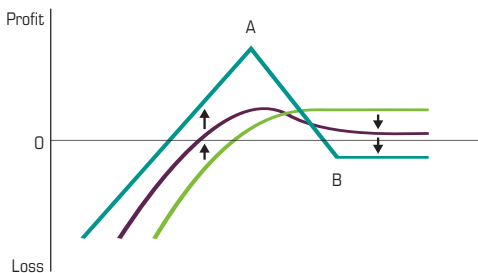
Your Market Outlook: Neutral. The underlying price will expire around the strike price A. If you are wrong you see the risk as a price rise. The strategy provides protection if the underlying price rises as you will profit from the sold puts. If the underlying falls sharply you will lose.

Profit: The maximum profit is limited to B minus A minus net cost of position.

Loss: As the underlying price can only fall to zero the maximum loss is limited on the downside and limited to the net cost of the position on the upside.

Volatility: Generally as volatility decreases this will benefit the position.

Time Decay: It depends on the underlying price, if it is at A, then time decay works for you on the sold options. If it is above B, then it works against you on the bought option.



19 LONG STRADDLE

Construction:

Buy 1 Call at A and Buy 1 Put at A.



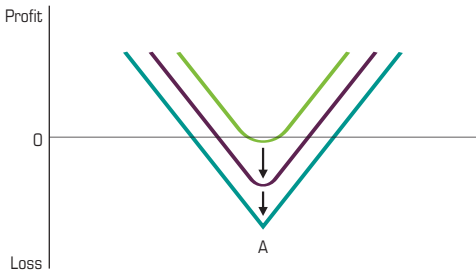
Your Market Outlook: Volatile/Event Driven. Volatility will increase, if it does both bought options will increase in value. You are unsure of the direction of the underlying but you think it will make a large move.

Profit: The maximum profit for this trade is unlimited on the upside and limited on the downside to the strike price, as the underlying can't fall below zero.

Loss: The maximum loss for this trade is the premium paid to buy both options.

Volatility: The option value will increase as volatility increases which is good for both options. Alternatively a decrease in volatility will be bad for both options.

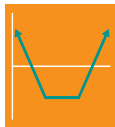
Time Decay: As each day passes the value of the option erodes (bad).



20 LONG STRANGLE

Construction:

Buy 1 Call at B and Buy 1 Put at A.



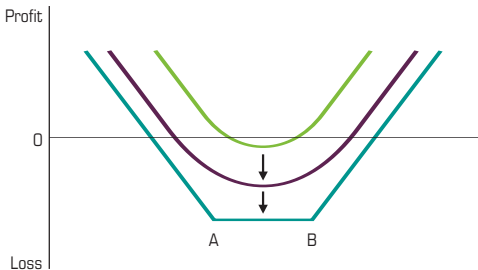
Your Market Outlook: Volatile/Event Driven. Volatility will increase, if it does both bought options will increase in value. You are unsure of the direction of the underlying but you think it will make a large move.

Profit: The maximum profit for this trade is unlimited on the upside and limited on the downside to the strike price A, as the underlying can't fall below zero.

Loss: The maximum loss for this trade is the premium paid to buy both options.

Volatility: The option value will increase as volatility increases which is good for both options. Alternatively a decrease in volatility will be bad for both options.

Time Decay: As each day passes the value of the option erodes (bad).



21 SHORT BUTTERFLY



Construction (any of the following):

Sell 1 Call at A and Buy 2 Calls at B and Sell 1 Call at C.

Sell 1 Put at A and Buy 2 Puts at B and Sell 1 Put at C.

Sell 1 Call at A and Buy 1 Call and 1 Put at B and Sell 1 Put at C.

Sell 1 Put at A and Buy 1 Put and 1 Call at B and Sell 1 Call at C.

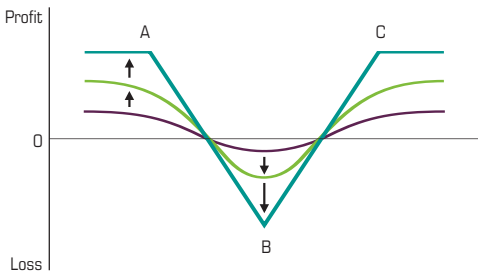
Your Market Outlook: Volatile/Event Driven. Volatility will increase. If it does both bought options will increase in value. You are unsure of the direction of the underlying but you think it will make a large move.

Profit: The maximum profit for this trade is limited. The break-evens are at B plus or minus the cost of the spread.

Loss: The maximum loss will occur at the strike price B.

Volatility: The option value will increase as volatility increases which is generally good for the strategy. Alternatively a decrease in volatility will be generally bad for the strategy.

Time Decay: As each day passes the value of the option erodes (bad). Most of the decay will occur in the final month before expiry.



22 SHORT CONDOR



Construction (any of the following):

Sell 1 Call at A and Buy 1 Call at B and Buy 1 Call at C and Sell 1 Call at D.

Sell 1 Put at A and Buy 1 Put at B and Buy 1 Put at C and Sell 1 Put at D.

Sell 1 Call at A and Buy 1 Call at B and Buy 1 Put at C and Sell 1 Put at D. Sell 1 Put at A and Buy 1 Put at B and Buy 1 Call at C and Sell 1 Call at D.

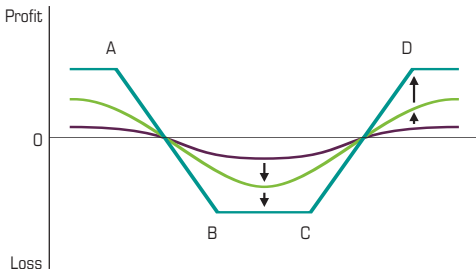
Your Market Outlook: Volatile/Event Driven. Volatility will increase, if it does both bought options will increase in value. You are unsure of the direction of the underlying but you think it will make a large move.

Profit: The maximum profit for this trade is limited. The break-evens are at A plus the cost of the spread and at D less the cost of the spread.

Loss: The maximum loss will occur at any point between the strike prices B and C.

Volatility: The option value will increase as volatility increases which is generally good for the strategy. Alternatively a decrease in volatility will be generally bad for the strategy.

Time Decay: As each day passes the value of the option erodes (bad). Most of the decay will occur in the final month before expiry.



23 BUY AND WRITE OR COVERED CALL



Construction:

Buy underlying Sell 1 Call at strike price A.

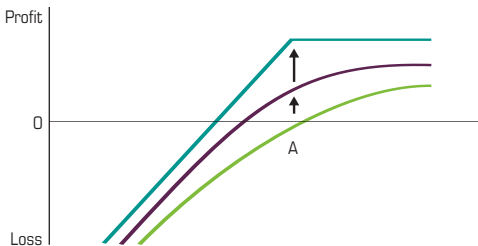
Your Market Outlook: Neutral to slightly Bullish. The underlying price will not rise above the strike price A. Your objective is to earn income from the sale of the Call option, OR, it is also used to exit the underlying at the strike price you sold the option which is when you would write an out of the money option.

Profit: The maximum profit is the premium you sold the option for plus the difference between where you bought the underlying and the strike price of the option you wrote.

Loss: The maximum loss for this trade is the underlying price that you paid less the premium received from the sale of the option.

Volatility: The option value will increase as volatility increases (bad) and will decrease as volatility decreases (good).

Time Decay: As each day passes the value of the option erodes (good).



24 PROTECTIVE PUT

Construction:

Buy underlying Buy 1 Put at A.



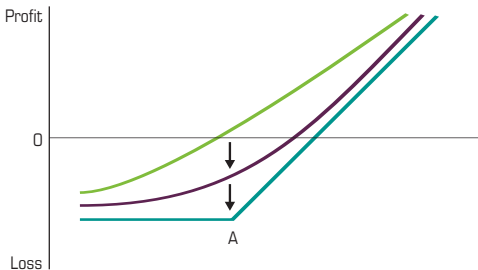
Your Market Outlook: Cautiously bullish. The underlying price will rise but you are concerned of a possible fall below the strike price A. Your objective is to protect the capital value of your underlying position as you have the right to sell at any time at the strike price A.

Profit: The maximum profit is unlimited, you will profit from an increase in the underlying price.

Loss: The maximum loss for this trade is the strike price plus the premium you paid for the option.

Volatility: The option value will increase as volatility increases (good) and will decrease as volatility decreases (bad).

Time Decay: As each day passes the value of the option erodes (bad).



25 COLLAR

Construction:

Buy underlying Buy 1 Put at A and Sell a Call at B.



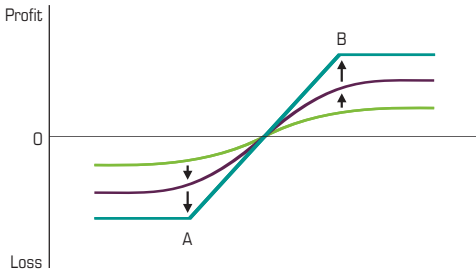
Your Market Outlook: Bullish. The underlying price will rise but you are concerned of a possible fall below the strike price A. Your objective is to protect the capital value of your underlying position as you have the right to sell at any time at the strike price A. You pay for this protection by selling the Call at B. Depending on the strike prices you choose this could be done for zero cost or even a net credit.

Profit: The maximum profit is limited to the gain made on the underlying up to the strike price B plus (minus) the net credit (net debit) of the option trades.

Loss: The maximum loss is limited to the loss made on the underlying down to the strike price A plus (minus) the net credit (net debit) of the option trades.

Volatility: You are not affected by volatility.

Time Decay: You are not affected by time decay.



26 BOX SPREAD

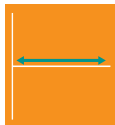
Construction (any of the following):

Long a Bull Spread and Long Bear Spread at the same strikes.

Short a Bull Spread and Short a Bear Spread at the same strikes.

Long the Underlying and Synthetic Short.

Short the Underlying and Synthetic Long.



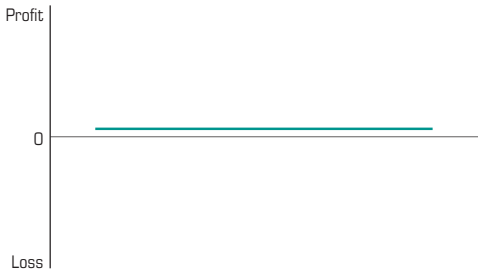
Your Market Outlook: These spreads are usually referred to as “locked trades” because their value at expiration is totally independent of the price of the underlying instrument.

Profit: The only profit is made if you can buy it for less than fair value or sell it for more than fair value.

Loss: The only loss is made if you buy it for more than fair value or sell it for less than fair value.

Volatility: You are not affected by volatility.

Time Decay: You are not affected by time decay.



GLOSSARY

Assignment: The random allocation of an exercise obligation to an option seller.

At-the-money: When the price of the underlying equals the exercise price.

Call Option: A contract that entitles the buyer to buy the underlying at a stated price on or before the expiry date.

Exercise Price (Strike Price): The amount of money that is paid by the taker or writer for the transfer of the underlying product upon exercise.

Expiry Day: The date on which option series expire.

Fair Value: The theoretical value generated using an options pricing model.

In-the-money: An option with intrinsic value.

Intrinsic value: The difference between the market value of the underlying and the exercise price of the option.

Margin: An amount calculated by SFE Clearing Corporation to cover the obligations arising from option contracts.

Open Interest: The number of outstanding contracts in a particular class or series.

Out-of-the-money: When the exercise price is above the market price for a Call option, and below the market price for a Put option.

Premium: The amount payable by the buyer to the seller for entering into the option.

Put option: A contract that entitles the buyer to sell the underlying at a stated price on or before the expiry date.

Time Value: The amount investors are willing to pay for the possibility they could profit from their option position.

Volatility: A measure of the expected amount of fluctuation in the underlying price.

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