



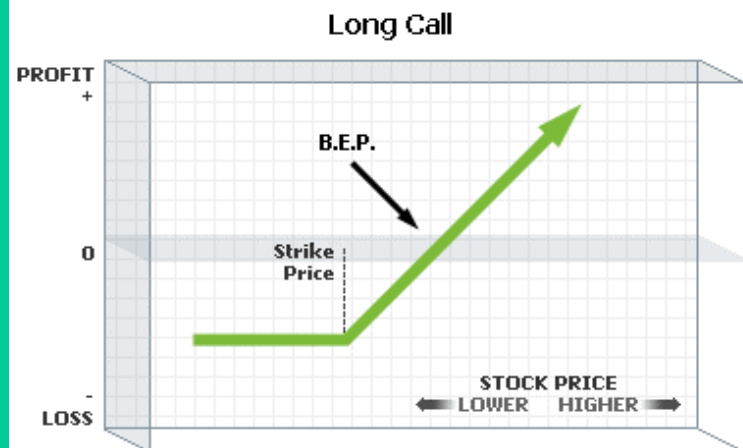
# Long Call

**The trade:** Buy a call with a strike price of (A).

- **Market expectation:** Market bullish/volatility bullish. The more bullish the expectation, the further out-of-the-money (higher strike) the purchased call should be. A Long Call combines limited downside exposure with high gearing in a rising market.

## Profit and loss characteristics at expiry:

- **Profit:** Unlimited in a rising market.
- **Loss:** Limited to the initial premium.
- **Break-even:** Reached when the underlying rises above the strike price A, by the same amount as the premium paid to establish the position.
- **Maximum Profit:** Unlimited
- **Maximum Loss:** Limited to Net Premium Paid
- **Upside Profit at Expiration:**  $\text{Stock Price} - \text{Strike Price} - \text{Premium Paid}$  (Assuming Stock Price above BEP)



The X-axis (horizontal) represents the price level of an underlying stock. The Y-axis (vertical) represents profit and loss, above and below the X-axis intersection respectively.

- **If Volatility Increases:** Positive Effect
- **If Volatility Decreases:** Negative Effect
- **Passage of Time:** Negative Effect

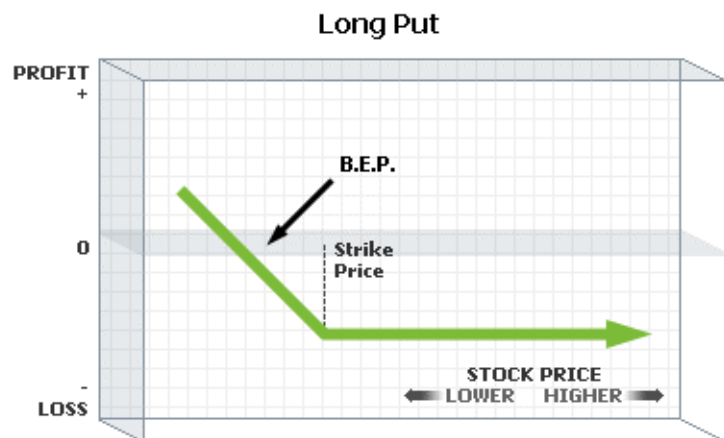
# Buy Put

**The trade:** Buy a put with a strike price of (A).

- **Market expectation:** Market bearish/volatility bullish. The more bearish the expectation, the further out-of-the-money (lower strike) the purchased put should be. A Long Put combines limited upside exposure with high gearing in a falling market.

**Profit and loss characteristics at expiry:**

- **Profit:** Effectively unlimited in a falling market.
- **Loss:** Limited to the initial premium paid.
- **Break-even:** Reached when the underlying falls below the strike price A by the same amount as the premium paid to establish the position.
- **Maximum Profit:** Unlimited
- **Maximum Loss:** Limited to Net Premium Paid
- **Downside Profit at Expiration:** Strike Price - Stock Price - Premium Paid (Assuming Stock Price below BEP)



The X-axis (horizontal) represents the price level of an underlying stock. The Y-axis (vertical) represents profit and loss, above and below the X-axis intersection respectively.

- **If Volatility Increases:** Positive Effect
- **If Volatility Decreases:** Negative Effect
- **Passage of Time:** Negative Effect

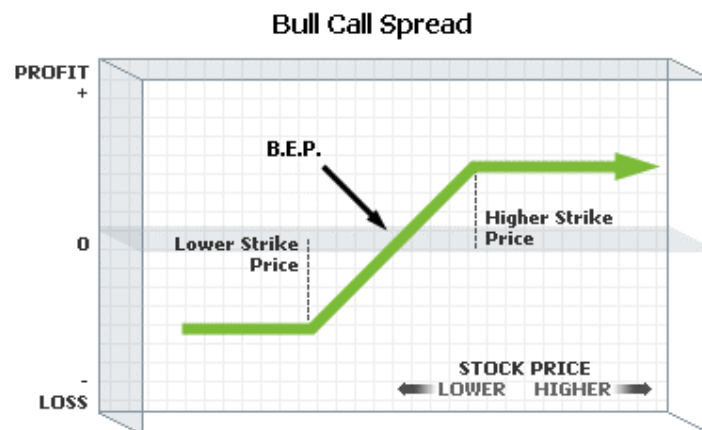
# Bull Call Spread

**The trade:** Buy a call (A), sell call at higher strike (B).

- **Market expectation:** Market bullish/volatility neutral. The spread has the advantage of being cheaper to establish than the purchase of a single call, as the premium received from the sold call reduces the overall cost. The spread offers a limited profit potential if the underlying rises and a limited loss if the underlying falls.

## Profit and loss characteristics at expiry:

- **Profit:** Limited to the difference between the two strikes minus net premium cost. Maximum profit occurs when the underlying rises to the level of the higher strike B or above.
- **Loss:** Limited to any initial net premium paid in establishing the position. Maximum loss occurs when the underlying falls to the level of the lower strike A or below.
- **Break-even:** Reached when the underlying is above strike A by the same amount as the net premium paid.
- **Upside Maximum Profit:** Limited to difference between Strike Prices - Net Debit Paid



The X-axis (horizontal) represents the price level of an underlying stock. The Y-axis (vertical) represents profit and loss, above and below the X-axis intersection respectively.

- **Maximum Loss:** Limited Net Debit Paid
- **BEP:** Strike Price of Purchased Call + Net Debit Paid

- **If Volatility Increases :** Effect Varies
- **If Volatility Decreases :** Effect Varies

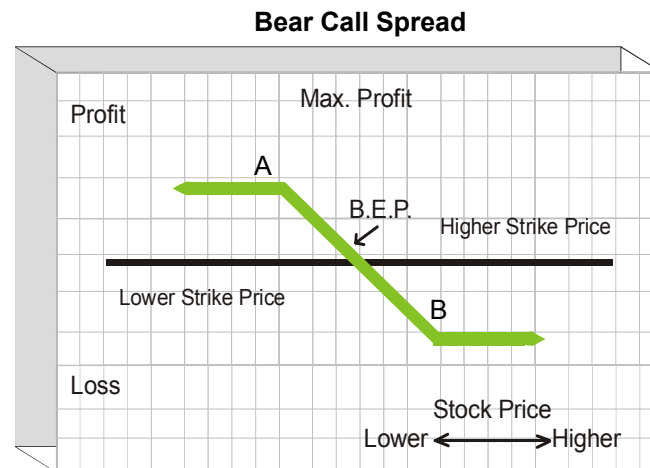
# Bear Call Spread

**The trade:** Sell a call (A), buy call at higher strike (B).

- **Market expectation:** Market bearish/volatility neutral. The Short Call at A aims to take advantage of a bearish market and the premium gained affords some upside protection with a Long Call at B. The spread offers a limited profit if the underlying falls and a limited loss exposure if the underlying rises.

**Profit & loss characteristics at expiry:**

- **Profit:** Limited to the net premium credit. Maximum profit occurs when underlying falls to the level of the lower strike A or below.
- **Loss:** Limited to the difference between the two strikes minus the net credit received in establishing the position. Maximum loss occurs when the underlying rises to the level of the higher strike B or above.
- **Break-even:** Reached when the underlying is above strike price A by the same amount as the net credit of establishing the position.
- **Downside Maximum Profit:** Limited to Difference Between Strike Prices - Net Debit Paid



- **Maximum Loss:** Limited to Net Debit Paid
- **BEP:** Strike Price of Purchased Put + Net Debit Paid

- **If Volatility Increases:** Effect Varies
- **If Volatility Decreases:** Effect Varies

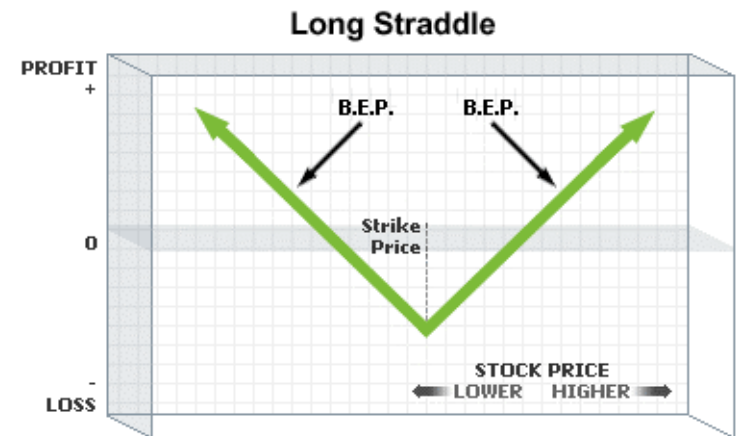
# Long Straddle

**The trade:** Buy a put (A), buy call at same strike.

- **Market expectation:** Market breakout/volatility bullish. With the underlying at A and an unknown directional move or increase in volatility is anticipated.

**Profit & loss characteristics at expiry:**

- **Profit:** Unlimited for an increase or decrease in the underlying.
- **Loss:** Limited to the premium paid in establishing the position. Will be greatest if the underlying is at strike A, at expiry.
- **Break-even:** Reached if the underlying rises or falls from strike A by the same amount as the premium cost of establishing the position.
- **Upside Profit at Expiration:** (Stock Price at expiration - total premium paid) - strike price. assuming stock price above BEP at expiration.
- **Downside Profit at Expiration:** Strike price - (Stock price at expiration + total premium paid) assuming stock price is below BEP at expiration.



- **BEP:** Two break-even prices:
- Strike Price + sum of call premium and put premium
- Strike price - sum of call premium and put premium

- **If Volatility Increases:** Positive Effect
- **If Volatility Decreases:** Negative Effect

# Short Straddle

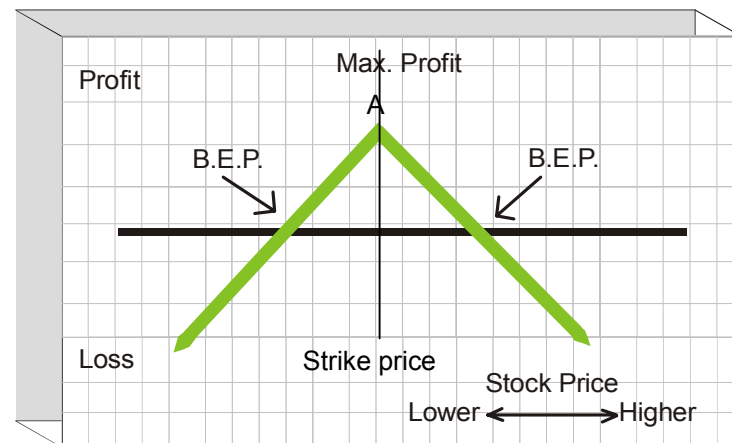
**The trade:** Sell a put (A), sell call at same strike.

- **Market expectation:** Market neutral/volatility bearish. With the underlying at A and a period of low or decreasing volatility is anticipated, and the underlying is not expected to move dramatically.

## Profit & loss characteristics at expiry:

- **Profit:** Limited to the credit received from establishing the position. Highest if the market settles at A.
- **Loss:** Unlimited for both an increase or decrease in the underlying.
- **Break-even:** Reached if the underlying rises or falls from strike A by the same amount as the premium received from establishing the position.
- **Upside Profit at Expiration:** (Stock Price at expiration + total premium received) - strike price assuming stock price below BEP at expiration.
- **Downside Profit at Expiration:** Strike price - (Stock price at expiration - total premium received) assuming stock price is below BEP at expiration.

## Short Straddle



- **BEP:** Two break-even prices:
- Call strike price + sum of call premium and put premium
- Put strike price - sum of call premium and put premium

- **If Volatility Increases:** Negative Effect
- **If Volatility Decreases:** Positive Effect
- **Passage of Time:** Positive Effect

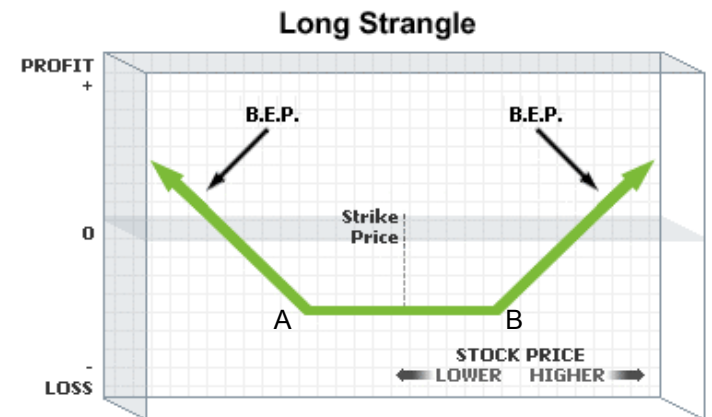
# Long Strangle

**The trade:** Buy a put (A), buy a call at higher strike (B).

- **Market expectation:** Market neutral/volatility bullish. The holder expects a major movement in the market but is unsure as to its direction. A larger directional move is needed than a straddle in order to yield a profit but if the market stagnates, losses will be less.

**Profit & loss characteristics at expiry:**

- **Profit:** The profit potential is unlimited although a substantial directional movement is necessary to yield a profit for both a rise or fall in the underlying.
- **Loss:** Occurs if the market is static; limited to the premium paid in establishing the position.
- **Break-even:** Occurs if the market rises above the higher strike price at B by an amount equal to the cost of establishing the position, or if the market falls below the lower strike price at A by the amount equal to the cost of establishing the position.
- **Upside Profit at Expiration:** (Stock Price at expiration - total premium paid) - call strike price assuming Stock Price above BEP at expiration.
- **Downside Profit at Expiration:** Put strike price - (Stock price at expiration + total premium paid) assuming stock price is below BEP at expiration.
- **BEP:** Two break-even prices:
  - Call strike price + sum of call premium and put premium
  - Put strike price - sum of call premium and put premium



The X-axis (horizontal) represents the price level of an underlying stock. The Y-axis (vertical) represents profit and loss, above and below the X-axis intersection respectively.

- **If Volatility Increases:** Positive Effect
- **If Volatility Decreases:** Negative Effect
- **Passage of Time:** Negative Effect

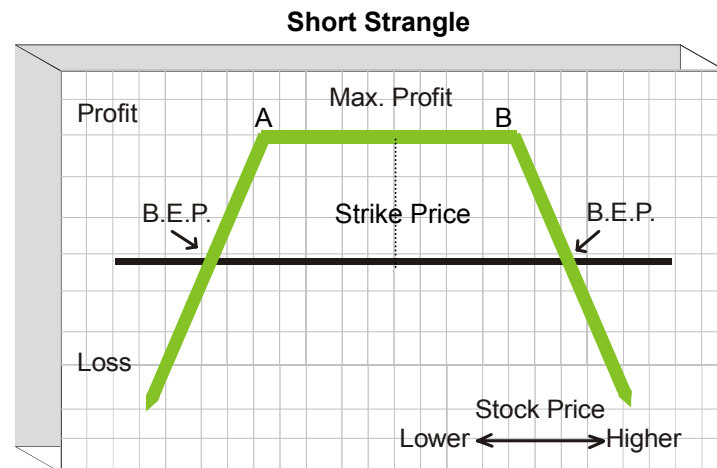
# Short Strangle

**The Trade:** Sell a put (A), sell call at higher strike (B).

- **Market expectation:** Direction neutral/volatility bearish. The holder expects low volatility and no major directional move. More cautious than a straddle as profit potential spans a larger range although maximum potential profits will be lower.

**Profit & loss characteristics at expiry:**

- **Profit:** Limited to the premium received. Will be highest if the underlying remains within the market level A-B.
- **Loss:** Unlimited for a sharp move in the underlying in either direction.
- **Break-even:** reached if the underlying falls below strike A or rises above strike B by the same amount as the premium received in establishing the position.
- **Upside Profit at Expiration:** (Stock Price at expiration + total premium Received) - call strike price.
- **Downside Profit at Expiration:** (Stock Price at expiration + total premium Received) - put strike price.
- **BEP:** Two break-even prices:
  - Call strike price + sum of call premium and put premium
  - Put strike price - sum of call premium and put premium



- **If Volatility Increases:** Negative Effect
- **If Volatility Decreases:** Positive Effect
- **Passage of Time:** Positive Effect

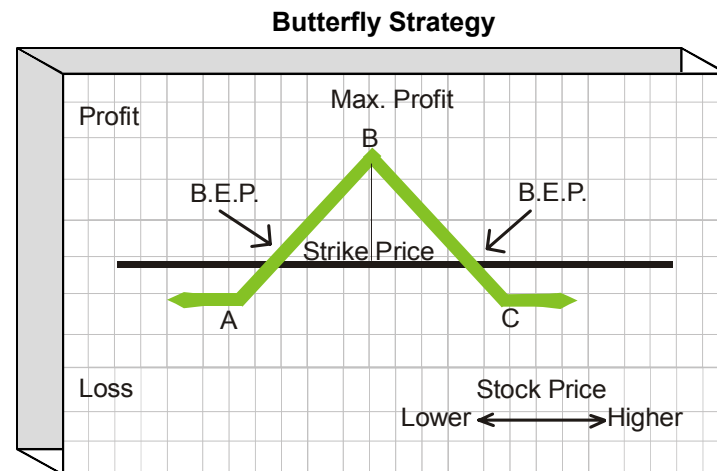
# Butterfly Strategy

**The trade:** Buy put (or call) A, sell two puts (or calls) at higher strike B, buy put (or call) at an even higher strike C.

- **Market expectation:** Direction neutral/volatility bearish. In this case, the holder expects the underlying to remain around strike B, or it is felt that there will be a fall in implied volatility.
- Position is less risky than selling straddles or strangles as there is a limited downside exposure.

## Profit & loss characteristics at expiry:

- **Profit:** Maximum profit limited to the difference in strikes between A and B minus the net cost of establishing the position. Maximised at mid strike B (assuming A-B and B-C are equal).
- **Loss:** Maximum loss limited to the net cost of the position for either a rise or a fall in the underlying.
- **Break-even:** Reached when the underlying is higher than A or lower than C by the cost of establishing the position.



- **If Volatility Increases:** Positive Effect
- **If Volatility Decreases:** Negative Effect
- **Passage of Time:** Negative Effect

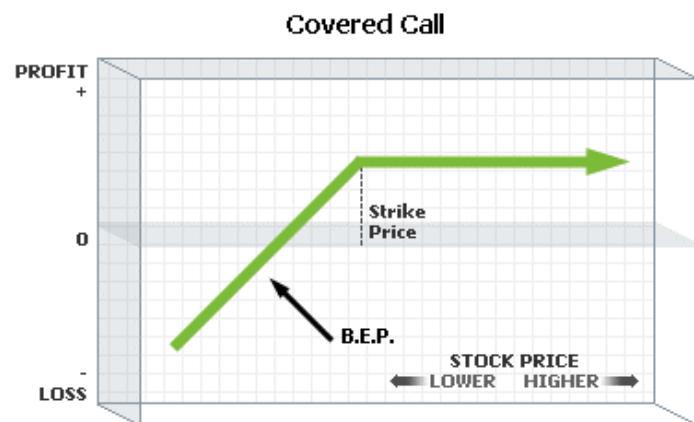
# Covered Call

**The trade:** An investor Sells a call option (A) while at the same time owning an equivalent number of shares of the underlying stock or Futures.

- **Market expectation:** The covered call can be utilized in any market condition, it is most often employed when the investor, while bullish on the underlying stock, feels that its market value will experience little range over the lifetime of the call contract. The investor desires to either generate additional income (over dividends) from shares of the underlying stock, and/or provide a limited amount of protection against a decline in underlying stock value

## Profit & loss characteristics at expiry:

- **Profit:** Maximum profit will occur if the price of the underlying stock you own is at or above the call option's strike price, either at its expiration or when you might be assigned an exercise notice for the call before it expires.
- **Loss:** This loss can become substantial if the stock price continues to decline in price as the written call expires. At the call's expiration, loss can be calculated as the original purchase price of the stock less its current market price, less the premium received from initial sale of the call
- **Break-even:** Stock / Future Purchase Price - Premium Received



The X-axis (horizontal) represents the price level of an underlying stock. The Y-axis (vertical) represents profit and loss, above and below the X-axis intersection respectively.

- **If Volatility Increases:** Negative Effect
- **If Volatility Decreases:** Positive Effect
- **Passage of Time:** Positive Effect

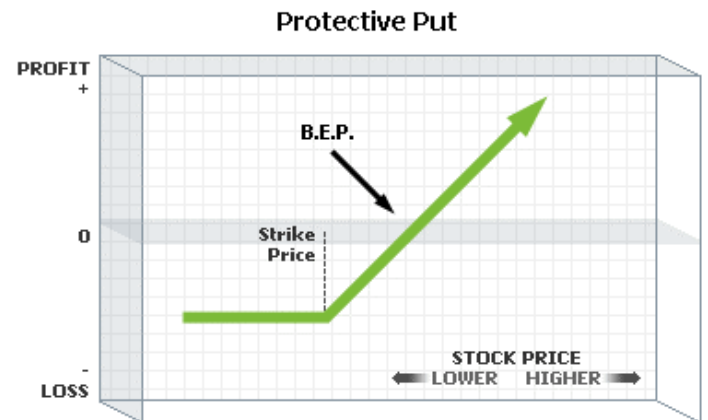
# Protective Put

**The trade:** An investor who purchases a put option (A) while holding shares of the underlying stock or Future from a previous purchase is employing a "protective put."

- **Market expectation:** Bullish on the Underlying Stock. The investor employing the protective put strategy owns shares of underlying stock from a previous purchase, and generally has unrealized profits accrued from an increase in value of those shares. He might have concerns about unknown, downside market risks in the near term and wants some protection for the gains in share value. Purchasing puts while holding shares of underlying stock is a directional strategy, but a bullish one.

## Profit & loss characteristics at expiry:

- **Profit:** Maximum profit will occur if the price of the underlying stock you own is at or above Stock purchase Price + premium paid,
- **Loss:** This loss is limited to premium paid, or can become substantial if the stock price continues to decline up to strike price of the put. It is calculated as  $\text{Strike Price} - (\text{Stock Purchase Price} + \text{Premium Paid})$
- **Break-even:**  $\text{Stock Purchase Price} + \text{Premium Paid}$



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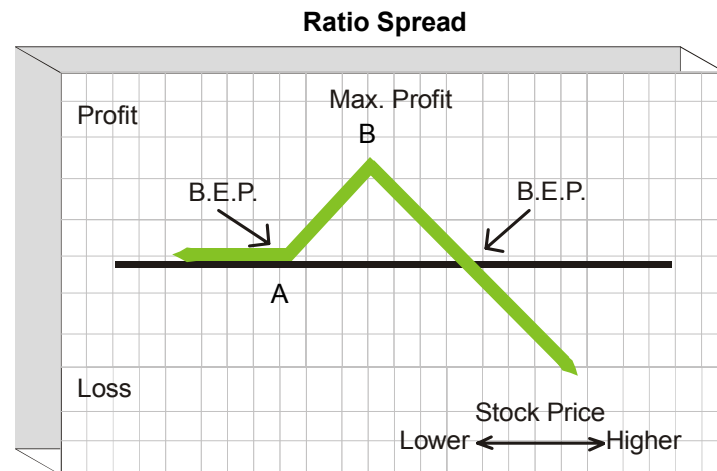
- **If Volatility Increases:** Positive Effect
- **If Volatility Decreases:** Negative Effect
- **Passage of Time:** Negative Effect

# Short Call Ratio Spread

- **The Trade:** Buy a call (A), sell 2 calls at higher strike (B).
- **Market expectation:** Market neutral/volatility bearish. Holder expects that the market will not rally but will settle around point B. Position usually established by buying an at or close to-the-money call, and selling two out-of-the-money calls such that although it is a net short position, it may be established at a small cost (as in the above example). Depending on the strikes chosen, the position could also be established at break-even or at a small credit.

## Profit & loss characteristics at expiry:

- **Profit:** Greatest profit occurs at higher strike B which is the difference between strikes B-A plus (minus) net credit (debit).
- **Loss:** Unlimited if underlying rallies. At A or below, loss limited to net cost.
- **Break-even:** Lower break-even reached when the underlying exceeds the lower strike option A, by the same amount as the net cost of the position (if initial position established at a net credit, there is no lower break-even point). Higher break-even point reached when intrinsic value of option A, plus (minus) the net credit (debit) from establishing the position, is equal to the combined intrinsic value of the two higher strike options B.



- **If Volatility Increases:** Negative Effect
- **If Volatility Decreases:** Positive Effect
- **Passage of Time:** Positive Effect



