

SITUATION

Shrewd option traders execute transactions based on the volatility of the stock under option by buying a straddle. This trading strategy is primarily based on the price volatility of the underlying asset. The long straddle investor is said to be “buying volatility”.

A long straddle consists of taking a long position in both a call option and a put option on the same asset with the same strike price and expiry date. By doing so, the investor sets lower and upper break-even points for his position. This strategy is useful when an event will have either a highly favourable or unfavourable impact on the price of the underlying asset, but the investor is unsure of the direction. The long straddle holder expects that the future price fluctuation of the underlying stock will be greater than the cost of buying the options.

OBJECTIVE

To profit from future stock volatility when the market underestimates it.

STRATEGY

An investor feels that DEF options are undervalued and expects a large swing in the price of DEF following the expected release of earnings statement. DEF is trading at \$29.35 a share.

To profit from his outlook, he buys a straddle on DEF: purchase of 10 DEF JUL 30 call options and purchase of 10 DEF JUL 30 put options. Calls are trading at \$3.70, for an out-of-the-pocket cost of \$3,700.00. Puts are worth \$4.10, for an out-of-the-pocket cost of \$4,100.00. His net out-of-the-pocket cost is \$7,800.00 (\$3,700.00 + \$4,100.00).

- Buy 10 DEF JUL 30 calls at \$3.70
- Buy 10 DEF JUL 30 puts at \$4.10
- Net debit: \$7.80

His lower break-even corresponds to the strike price minus the total option premium ($\$30.00 - \$7.80 = \$22.70$); his upper break-even point is the strike price plus the total option premium ($\$30.00 + \$7.80 = \$37.80$). This means that the trade will be profitable as long as the price of the stock moves outside this threshold.

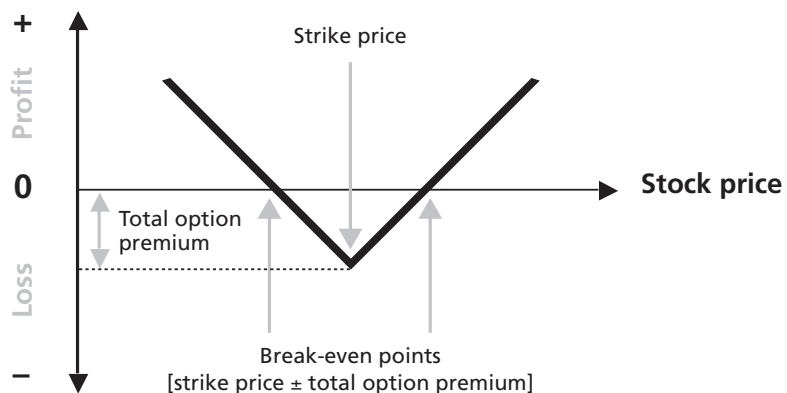
RESULTS

The downside risk of this strategy is known and limited. If the price of the stock remains inside the threshold, the investor may lose up to the total premium paid for the purchase of the options. Note that a straddle is doubly sensitive to the passage of time. Quite often, an investor will decide to cash in his profits if the price of the stock moves drastically even if a small amount of time has passed since he bought his straddle or if his position no longer reflects his initial intentions.

Conversely, this strategy attains its full potential when the fluctuation in the price of the stock goes outside the preset limits. The investor can exercise either the call or the put (depending on the direction of prices) and trade his DEF shares on the stock market to cash in his profit, or sell the favourable option in the market.

[See other side >>](#)

**Payoff diagram at expiry
Long straddle**



A few words on the strangle

The purchase of a strangle is normally executed with at-the-money strike prices. An investor can also purchase a combination with different strike prices through the purchase of a strangle. This strategy implies the purchase of out-of-the-money call and put options. As a result, the premium paid to execute a strangle is lower than the premium of a straddle.

Like the straddle, a strangle establishes lower and upper break-even points. The investor will start making profits when the price of the underlying stock is higher than the upper break-even point or lower than the break-even point on the downside.

Theoretically, the maximum downside risk is higher for a strangle. The maximum loss is incurred when the price of the stock is between the lower and upper strike prices at expiry. In comparison, the maximum loss on a straddle is incurred if the price of the stock at expiry is exactly equal to the strike price of the two options bought. However, as the cost of a strangle is lower, the maximum loss of the investor is lower than the loss on a straddle.

**Payoff diagram at expiry
Long strangle**

