

# Putting the odds in your favor

Long thought to be trading vehicles for brainiacs, option spreads can be beginner-friendly. Learn how option spreads offer greater risk/reward trades and allow minimally capitalized traders to enter volatile markets safely.

By Rick Thachuk

Option spreads, created by buying an option and simultaneously selling a related option, are seldom the choice investment vehicle of position traders, especially beginning traders, largely because of their intuitive complexity and difficulty of execution. However, option spreads arguably offer greater expected risk/return characteristics than futures and even outright purchases of call or put options. Thus, over time, option spread strategies can yield greater risk-adjusted rates of return and overall portfolio performance.

**Common spreads** Of the many option spreads available, the two most common are the bull call spread and the bear put spread. These spreads are regarded as debit spreads because the purchaser must pay the initial cost of the spread. The initial cost of the spread, including commissions and fees, constitutes all of the market risk of the position. "Good as gold" (right) depicts possible bull call and bear put spreads for February gold options.

A bull call spread consists of buying a call option and simultaneously selling another call option of the same commodity and expiration but having a higher strike price. A bull call spread creates a long exposure and is established when the trader expects prices to rise. It provides an alternative to buying a futures contract or buying a call option.

A bear put spread consists of buying a put option and simulta-

neously selling another put option of the same commodity and expiration, but having a lower strike price. A bear put spread creates a short exposure and is established when the trader expects prices to fall.

**Better return on risk** Of the three general strategies — trading futures, buying options or buying option spreads — buying option spreads has the lowest risk. For example, a typical futures contract can gain or lose on average between \$500 to \$1,000 in any one day. Option spreads, in contrast, typically move only \$50 to \$100 in any one day. For futures traders, especially those with trading accounts below \$5,000, lowering risk is paramount. Option (debit) spreads require no margin and the

downside risk is known and fixed beforehand: The maximum dollar amount that can be lost in a worst-case scenario is the price initially paid to establish the position, including commissions and fees.

Even though an outright futures position will return the greatest profit-per-point movement of the underlying contract, the risk associated with futures makes them unattractive to traders with small-sized accounts. The limited risk of outright options makes them more appealing; however, the cost of option premiums can deteriorate performance significantly over time.

Option spreads have the advantageous risk characteristics of outright options, but the upfront cost is lower, thus helping to put the



odds in favor of the trader. Relative to outright options, an option spread generates a superior risk-adjusted return because the spread essentially sells the lottery portion of the option. This is graphically depicted in "Long call option" (below).

**Crude bull call spread** After trending steadily higher over the summer, crude oil prices declined sharply in early October (see "Oil slick," page 48). Prices quickly recovered from their lows, suggesting that crude oil prices may resume their upward trend. To place a trade based on an expected return to the upside, you could establish a long position in crude oil by purchasing a bull call spread.

In this example, you would have bought a bull call spread in the January options on Oct. 20, 1999, because it would have allowed almost two months for crude oil prices to rally. (The January options expired on Dec. 15, 1999.) Because these option premiums are relatively expensive due to their long life, you should select strike prices that are out-of-the-money to reduce the overall cost of the spread. With the futures price at \$22.75 per barrel, you can buy the 24 strike call for \$820 and simultaneously sell the 25 strike call for \$580. The net cost of the spread is \$240 plus commissions and fees and is the most that you can lose in a worst-case scenario.

The maximum value that the spread can attain is \$1,000 — the value of the difference between the option strike prices. Shortly after establishing the spread, crude oil prices dipped to below \$22 per barrel. If you had established a long futures position instead of the option spread, you likely would have been stopped out at a loss. However, with the spread, such temporary retracements can be safely tolerated because of the inherent limited risk of the spread.

On Nov. 16, 1999, crude oil resumed its upward trend and you decided to close the spread position by simultaneously selling the 24 call for \$1,910 and buying the 25 call for \$1,280. The value of the spread had risen to

## GOOD AS GOLD

This table displays possible spread combinations from sample gold option prices and calculates the maximum risk (the cost) and the maximum net gain of each. Because the price of the futures at the time of the option's expiration is unknown, each of the maximum net gain values must be weighted by the probability of occurrence (not shown) before a realistic comparison can be made across the various positions. For instance, even though the 300/320 bull call spread has the highest maximum net gain, the low probability of gold rallying to \$320 per ounce by the option's expiration may make this spread less desirable than others that rely on more likely scenarios.

**February gold futures settle price: \$295 per oz.**

Feb gold option prices — calls			Feb gold option prices — puts		
Strike	Price	\$ Value	Strike	Price	\$ Value
300	6.6	\$ 660	290	6.5	\$ 650
310	4.0	\$ 400	280	3.5	\$ 350
320	3.0	\$ 300	270	1.7	\$ 170

### Possible bull call spreads:

Buy	Sell	Maximum risk*	Maximum net gain*
300 strike	310 strike	(660-400)= \$260	(310-300)x100-260= \$740
310 strike	320 strike	(400-300)= \$100	(320-310)x100-100= \$900
300 strike	320 strike	(660-300)= \$360	(320-300)x100-360= \$1,640

### Possible bear put spreads:

Buy	Sell	Maximum risk*	Maximum net gain*
290 strike	280 strike	(650-350)= \$300	(290-280)x100-300= \$700
280 strike	270 strike	(350-170)= \$180	(280-270)x100-180= \$820
290 strike	270 strike	(650-170)= \$480	(290-270)x100-480= \$1,520

\*Not including commissions and other fees.

## LONG CALL OPTION

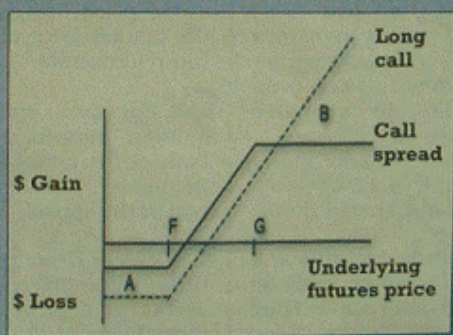
The return frontier of the long call option is the familiar hockey-stick pattern shown as the dashed line. The underlying futures price is at F so the call option is at-the-money. (It has a strike price of F.) A bull call spread is created by simultaneously selling another call option with a strike at G, and the return frontier is shown as the bent solid line. By employing the option spread, the trader receives the cash amount (A) realized by the selling of the higher-strike option. In return, he sacrifices any further gain (B) if prices rise beyond the higher strike price (G).

The payout (B) is regarded as the lottery portion of the option, as the underlying futures must rally considerably for the payout to be realized. This lottery portion has risk/return characteristics that are very similar to that of a deep out-of-the-money option; the buyer pays only a little, but must wait for a significantly large movement of the under-

lying futures price for any payout. Buying deep out-of-the-money options, although intuitively appealing to many investors, is a strategy that has a slim chance of earning net profits over time. This fact has become so well established within the industry that regulators require all option disclosure statements to advise customers specifically that there is only a remote likelihood of profiting from buying deep out-of-the-money options.

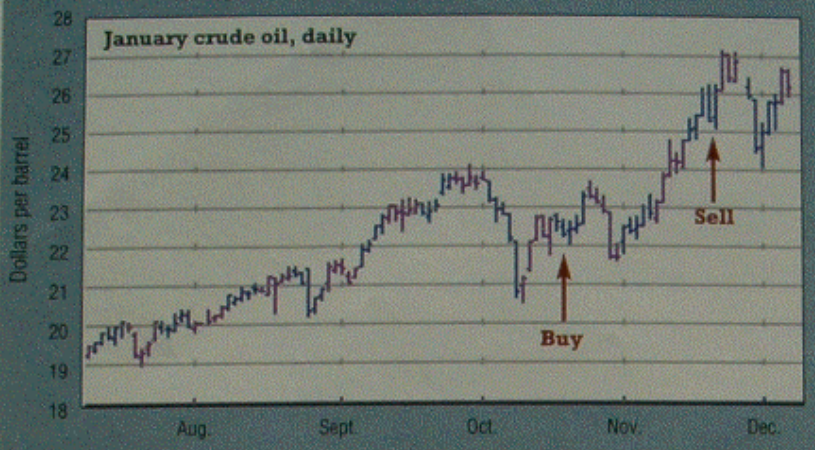
In the same way, the lottery portion of the option is a net loser over time.

Hence, the trader can improve his overall return performance by buying option spreads instead, thus effectively selling the lottery portion of the option. It should be noted that selling this lottery portion in no way generates risk to the trader in contrast to selling a naked out-of-the-money option. There is no margin required on an option spread and the downside is known and fixed.



## OIL SLICK

Putting on a bull call spread in crude oil options proved more profitable than buying the futures outright due to the dip in futures prices in late October.



► \$630 for a net dollar gain of \$390 (not including commissions and fees) over a one-month holding period. Even though both of these spreads are in-the-money, the spread did not reach its maximum value of \$1,000 because the options still had a considerable amount of time until expiration (about one month).

This example highlights several benefits of using option spreads:

1. Option spreads reduce the cost of purchasing options. Purchasing the January 24 Call option outright would have cost \$820, whereas the spread cost only \$240.

2. Because of their low cost, option spreads enable investors with small-sized accounts to participate in almost any market, even relatively volatile and expensive ones such as crude oil.

3. Temporary adverse price movements can be tolerated because option spreads have limited downside risk.

4. Option spreads typically will not reach their maximum value as long as the options have time remaining until expiration.

**Tips on buying option spreads** When buying an option spread, attention must be given to selecting the strikes and the expiration of the component options. Theoretically, the option strike prices and expiration should be selected so there is a high probability that the underlying futures price will reach the

strike of the more out-of-the-money option by the time the options expire. This needs to be balanced with cost. Spreads having close-to-the-money strike prices and long expirations and, hence, greater likelihood of expiring in-the-money, will cost more. Each trader must devise his own method for balancing these two factors. We have developed several rules of thumb when engineering option spreads.

**1.** For an option spread having approximately one month until expiration, buy the option having a strike price that is close to or at the market price of the underlying futures contract.

**2.** For option spreads having two or more months until expiration, both of the options can be out-of-the-money. This also will lower the cost of the spread.

**3.** Select strike prices so that the dollar-value difference between the strike prices, or the maximum gross value of the spread, is twice the cost of the spread. For instance, if the cost of the spread is \$500 including commissions and fees, then the maximum gross value of the spread should be approximately \$1,000.

**4.** Never leg (entering or exiting one side of your spread at a time) into or leg out of an option spread.

Legging can create a naked short option exposure with considerable risk and margin requirement.

**5.** Always use limit orders when initiating and closing an option spread position. The bid/offer quotes for option spreads can be relatively wide. Limit orders give you control over fill prices.

**6.** Don't be greedy. Take profits when the gross value of the spread reaches approximately two-thirds of its maximum. For example, if the maximum gross value of the spread is \$1,000, take profits at \$750. If the initial cost of the spread, including commissions and fees, is \$500, then this translates to a significant net return of 50%. Keep in mind that even if the underlying futures moves significantly in a favorable direction, the option spread will not increase to its maximum value if there is some time left to option expiration. Rather than wait (and risk prices moving unfavorably), take profits when the spread reaches approximately two-thirds of its maximum value.

**7.** Avoid paying high commissions and other fees. Option spreads generate two commissions, one for each of the option components, and profitability suffers if these fees are too high. While many traders should use a full-service broker for trading option spreads, profitability becomes significantly constrained when commissions and fees can total more than \$90 a roundturn per contract.

Option spreads enable traders, especially those with small-sized account balances, to trade expensive markets at little cost and with little risk. Their unique return frontier suggests that, over time, option spreads can outperform an investment strategy based solely on purchasing options. For these reasons, they are highly recommended as the investment vehicle of choice for many and especially for beginning futures traders. **FM**

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