



Gaining the Options Edge

How to Compete with the Rocket Scientists

By Rick Ackerman

If you're a typical options trader, you've probably seen far more of your puts and calls expire worthless than double or triple in value. We are going to examine some strategies that can help improve your odds, but first it will help to know why it has been so difficult for the retail customer to win. It's unlikely that many street-savvy traders have attempted this feat by way of a retail broker. Indeed, anyone smart enough to calculate the odds, say, of being dealt a flush in a poker game or of a Duke victory in the NCAA tournament, can understand implicitly why trading puts and calls will be a losing game for most of those who attempt it.

It is no coincidence that some of the traders who bought seats on the Chicago Board Options Exchange (CBOE) when it opened for business in 1973 came from the Las Vegas casinos, where they had made a decent, if sometimes nerve-wracking living, playing blackjack. Nerve-wracking because there was always a pit boss, looking over the shoulders of players who appeared to be winning on a consistent basis. Nor was winning in this way easy work, as even the most sophisticated card-counting systems yielded profits of no more than \$2 or so for every \$100 the player could shove out on the table.

Better Odds in Options

The main attraction was that, compared to blackjack, winning on the options floor in those early days was as easy as pitching stones into a pond. It was a seller's game back then, and the premium income a market maker typically received for selling naked puts and calls was so juicy that sell-side players almost couldn't lose.

Unfortunately, the options gravy train bogged down as more and more rocket scientists found their way to the options floor. Over time, option premium levels decreased to the point where they no longer fully reflected the volatility risk in the underlying stocks. Under the circumstances, selling naked puts and calls below their fair value was like selling cheap burglary insurance to store owners in a bad neighborhood. In the end, the sellers faced a much tougher game, and many had their incomes reduced significantly because they were effectively underpricing risk. The trend has continued to this day, requiring the floor pros to come up with increasingly sophisticated strategies to make money.

So if professionals have been having a hard time of it, where does that leave the retail customer? The short answer is, not exactly swimming in a sea of opportunity. That is why, until relatively recently, I took a skeptical view of newsletter gurus who claimed to be making highly profitable options recommendations. Perhaps a handful of them were using relatively sophisticated strategies. But show me a guru whose bets were mainly longer term, unhedged and "directional" – that is, geared to making money by guessing which way and how far a stock was about to move – and I'll show you a snake-oil peddler whose advice was probably dangerous to the green trader's economic health.

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Ironically, I came to use such strategies more and more intensively myself as *Black Box Forecasts*, a newsletter that I write, evolved in the late-1990s. Why? Mainly because so many of my subscribers evidently were thinly capitalized, with as little as \$2,000 to \$5,000 in their trading accounts. Under the circumstances, they could not afford to follow recommendations that often called for buying or shorting 400 shares of stock. Remember, this was at a time when many of the hottest stocks traded in the \$100-\$200 range, so a recommendation to buy, say, 400 shares of Broadcom (BRCM), which peaked at around \$275, required putting more than \$100,000 at risk. Clearly, such strategies would not work for the trader who was trying to make it on a shoe-string budget.

Call Options Offer a Way to Participate in a Rally

But suppose instead of buying 400 shares of Broadcom for \$100,000 in anticipation of a rally, we simply bought four call options for, say, \$4.00 apiece, putting a total of \$1,600 at risk? That would allow us to participate in the rally, but with far greater leverage and less risk than if we put up \$100,000 to buy stock. Using this strategy, it would not have been inconceivable that a move of just 10 percent in the stock – in any stock – would yield a profit of 200 to 300 percent or more for holders of out-of-the-money call options.

But there is a downside, too, and it is this: Most options expire worthless, and only a rare few ever produce gains on the order of 200 percent to 300 percent. The reason for this is that the sellers of those options – usually market makers or exchange floor specialists – are adroit handicappers in pricing risk. And even if they were obliged at times to sell puts and calls at relatively depressed levels, over the long haul they were far more skillful at pricing options than the typical retail customer. Which is to say, the floor traders enjoyed the “house” edge in setting option prices.

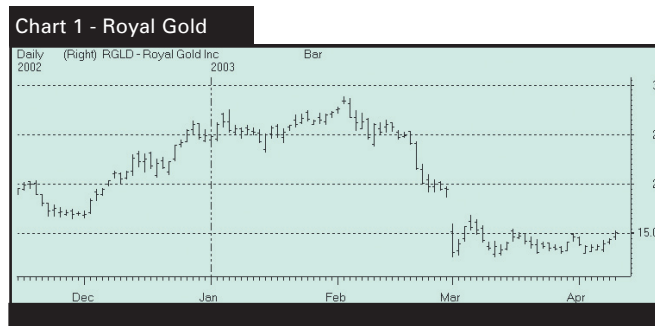
Individual Traders Can Give Professionals A Run for Their Money

So how do we beat them at their game? First, it must be conceded that no retail strategy can succeed entirely in surmounting the professional’s small but nonetheless crucial edge. With the relatively recent advent of virtual electronic option exchanges such as International Securities Exchange, the playing field has been leveled somewhat, to the point where some floor traders are asking themselves whether, all things considered, they’d be better off trading from their offices or homes rather than doing battle in the pits every day.

Learn How to Get the Edge

Some of the techniques I am about to explain are borrowed from the dozen years I spent as a market maker on the floor of the Pacific Coast Exchange. But, there are some added details, shaped over the last dozen or so years by my experience trading options from the retail side, that will benefit even seasoned pros who have gone off-floor. Here is my short list of essential edge-building tactics, each of which will be explained below in greater detail:

1. Use of contingency-type orders, which tie the purchase or sale price of an option to the price of the underlying stock;
2. Accurate identification of “swing points,” where a stock’s trend is likely to reverse;
3. Use of cheap options (i.e., less than \$2.00) for increased leverage;
5. Calculation of “fair value” for puts and calls before buying them; and
6. Reduction of premium risk by selling options against those already owned.



Let’s look at the first item, using contingency-type orders, because this is vital to any option trader’s success. In the old days, before direct-access trading platforms existed, such orders were conveyed to one’s broker over the phone. An example of a contingency order would be as follows: “Buy one July 45 call for \$2.20 (\$220 per contract) or better, contingent on XYZ stock trading 44.30 or higher.” A slightly modified version might read, “Pay \$2.20 for one July 45 call so long as XYZ stock is bid 44.30 or higher.” Similarly, we might instruct a broker to “bid 2.60 for one July 45 put, as long as XYZ stock is offered for 46.30 or less.” The reason for using contingency orders should be apparent to anyone who has traded options through a retail broker. Have you ever placed an order to buy a call option for a certain price, only to get filled when you no longer wanted to be filled – for example, as the stock began to fall? In the first example above, one might have calculated that \$2.20 would be a great price for the July 45 call option if the stock is trading around 44.30. But it would be a rotten price if the stock were trading lower – say, around 43.70.

Don’t Pay More Than You Must

We use contingency-type orders to avoid overpaying because, over time, buying options at bargain prices is one of the most significant ways to build an edge. The idea is to be profitable on a trade from the get-go – to enter the trade, that is, with the wind behind us. And the best way to do so is to make certain we have not paid too much for a put or call. Remember, edge in the options game is measured in nickels and dimes, and if we are to expect success, we can’t afford to give up even a penny here or a penny there every time we trade. The

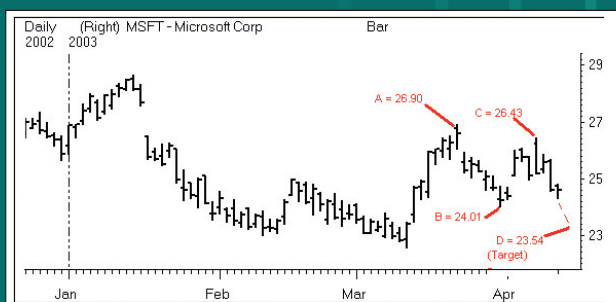
good news is that electronic trading platforms give us direct access to the real-time bids and offers of market makers and other traders participating in options markets. Also, whereas there are not many retail brokers willing to bother with contingency-type orders, this capability is intrinsic to electronic-access platforms such as RealTick's TurboOptions, and relatively easy to use.

But, finding put and call bargains still requires doing a little preliminary work, just as we would compare prices and models when shopping for a car. Let's look at some of the other steps we took to implement an option strategy given in early April. The underlying stock was Royal Gold (RGLD), which had been trading mostly in a three-point range in the low teens, after falling steeply from near 30 earlier in the year (see *Chart 1*).

With RGLD seemingly consolidating in the 14-15 range, it seemed plausible that it might rally at least a few points over the next several months. Accordingly, the recommendation was the purchase of July 17.50 call options. Keep in mind that this particular strategy was employed to leverage the *vague* expectation that the stock would trend higher over a period of several months, not that it would move sharply higher over the very near-term to a specific target.

Pick Trend Reversals to Play Call or Put Options

The simplest way I've found to predict trend reversals with precision begins by visualizing all price action in the form of an A-B-C-D pattern. The underlying assumption is that an impulse leg often produces a follow-through leg of an identical length after a correction. In the chart, Microsoft (MSFT) is in a downtrend with an impulse leg (A-B) that is exactly 2.49 points in length (i.e., A minus B). In theory, this means the stock should make a tradable swing low at 23.54, which is simply 2.49 subtracted from point C.



To the extent these patterns work out, the ability to buy at bottoms and get short at tops can be leveraged knowledgeably with call options or put options, respectively. In the example above, our set-up would entail buying, say, May 25 calls just as the stock is hitting our downside target of 23.54. If we can calculate how much May 25 calls would be worth with the stock trading at that price, and if the stock bounces as expected from it, we can hope to buy the call just as it is hitting a cyclical low.

Calculating the Price to Pay

With the stock oscillating between 14 and 15, the best time to buy calls would have been when it was trading toward the low end of that range, near 14. How can we determine how much to pay for call options if the stock eases down to 14? First, let's see how expensive the out-of-the-money calls were at the time, as indicated by their implied volatilities. Implied volatility is simply a measure of how much risk premium is being factored into put and call options. Options on a stock that has fluctuated between 20 and 22 for a month might carry an implied volatility of 17, a relatively low number that suggests the stock has not been moving around much. But, if bullish rumors were to cause the stock to surge several points in just a few days, call options would increase in value as well, for two reasons. First, the stock will have moved to a higher price level, and second, option volatility (a.k.a. "risk premium") also will have increased as price action in the stock got wilder. In fact, as we see in the table in *Chart 2*, option volatilities were sky-high, ranging from about 63 to 70. (This compares with a typical implied volatility of 20 to 30 for a "dull" stock.) The item we are particularly interested in this table is labeled "Vbid" – short for bid volatility. This is the price that buyers of these options were actually willing to pay when the stock was trading at an indicated \$15.15. Because, like the pros, we aim to buy options on the bid rather than the offer, we want to use bid-side volatilities to calculate bargain prices for ourselves. We see that 65.22 is the actual volatility for July 17.50 calls, but cheapskates that we are, we will try to buy them only if they come down to super-bargain levels – say, a 62 volatility.

Rely on a Calculator for Help

So, assuming we want to buy July 17.50 calls at a 62 volatility or lower, how much, in theory, should the call sell for with the stock trading down near 14? To answer that question, we need to use an option valuation calculator. Such calculators are available for free at numerous Web sites, but I prefer the very-easy-to-use software sold by options expert Larry McMillan. *Chart 3* is a sample screen from his calculator, into which I have plugged the following variables: 1) underlying price of 14.00; 2) strike price and expiration of July 17.50, the option I want to buy; 3) implied option volatility of 62 – a bargain, according to my calculations; 4) expiration date in July, to calculate values for the July options, and 5) a "start" date when I plan to buy the options, April 11. (This item is necessary because options shed value over time, and a bargain price on, say, April 11, would be slightly less so on April 12, assuming the price of the underlying stock remains the same).

With these variables plugged in, the calculator tells me that 77 cents is what I should hope to pay for a July 17.50 call if Royal shares fall to 14 on April 11.

The theoretical price of 77 cents sounds just about right, because we can buy a dozen of them for less than \$1,000, commissions included. Many option pros will tell you that buying "cheapie" options is a losing strategy, but it depends on how well you play the game. By employing as many edge-building tricks as possible on each trade, we truly can hope to compete with the pros. In the example above, we've applied nearly all of the tricks we need to give us a decent shot at winning. For this particular

trade, here's the last piece of it: reducing premium risk by selling options against those already owned.

Chart 2 - Turbo Screen

| Ticker | Delta | Open | Calls | | | Ask | VBid | Last | Trade Volume | RGLD |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|--------------|--------|
| | | | High | Low | Bid | | | | | |
| RGLD | 1.00 | 14.69 | 15.28 | 14.41 | 15.14 | 15.15 | 15.00 | 15.15 | 1000 | |
| +MJQGB | 1.00 | 0 | 0 | 0 | 5.40 | 5.70 | 66.60 | 4.40 | 0 | 10,000 |
| +MJQGV | 0.99 | 3.50 | 3.50 | 3.50 | 3.50 | 3.90 | 65.18 | 3.50 | 6 | 12,500 |
| +MJQGC | 0.57 | 1.95 | 2.25 | 1.95 | 2.30 | 2.45 | 70.36 | 2.25 | 5 | 15,000 |
| +MJQGW | 0.04 | 1.20 | 1.30 | 1.10 | 1.25 | 1.45 | 65.22 | 1.30 | 5 | 17,500 |
| +MJQGD | 0.00 | 0 | 0 | 0 | .70 | .80 | 64.90 | .50 | 0 | 20,000 |
| +MJQGX | 0.00 | .35 | .40 | .35 | .35 | .40 | 62.94 | .40 | 10 | 22,500 |

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And the Trade Unfolds

In the current example, this would entail selling short some April 17.50 calls. At the time, April 17.50 were set to expire in a little more than a week. With the stock selling for around \$14, the April 17.50 calls were cheap – offered for just 0.10, or \$10 per 100-share contract. To defray commission costs, we decided to offer them just a tad higher, for 0.15 (\$15), and it therefore took a couple of days to fill the order. When the stock popped up to \$15.75 seven days before the April options expired, however, we were filled at 0.15. Effectively, we had legged into the July-April 17.50 calendar spread for 0.75, and that would be our basis cost once the April 17.50 calls expired, presumably worthless, in a week.

As it happened, on the day the stock rallied to \$17.75, there was an opportunity to further reduce the basis cost of our July 17.50 calls, because the May 17.50 calls could be sold then for as much as 0.80 apiece. But, because we did not want to be short more contracts than we were long, this would have entailed covering the short April 17.50 calls to create room to short some Mays. To accomplish this, we would simply have bought the April-May 17.50 call spread, buying back the Aprils on the bid for 0.05, then shorting an equal number of May 17.50s on the 0.70 bid. This would leave us short the May calls at an effective price of 0.65, giving us a basis cost of 0.25 for the July-May 17.50 call spread (i.e. 0.90 minus 0.65 received for the May 17.50s). In the end, to save on commissions, we elected simply to let the Aprils expire before we plunged into the May 17.50 series by shorting them.

Chart 3 - Option Calculator

| Underlying Price | Strike Price | Rate | Volatility | Dividend | Put Delta | Asset / Euro | Start Date | Expiry Date |
|------------------|--------------|------|------------|----------|-----------|--------------|------------|-------------|
| 14.00 | 17.50 | 5.00 | 62.00 | 0.00 | -68.87 | American | 4/11/2003 | 7/19/2003 |

| Stock Price | CALL | | | | | PUT | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|
| | 17.5 | 20.0 | 22.5 | 25.0 | 27.5 | 17.5 | 20.0 | 22.5 | 25.0 | 27.5 | 30.0 | |
| 14.0 | 0.77 | 0.39 | 0.19 | 0.09 | 0.04 | 0.02 | 4.04 | 6.13 | 8.50 | 11.00 | 13.50 | 16.00 |
| 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

The Icing on the Cake

And, there's more. If the stock continued to rally over the next week, there was the chance that we would be able to short some May 17.50 calls for 1.00-1.20 or even more. Assuming a sale at 1.20, this would make us long the July 17.50 - May 17.50 calendar spread for a net credit of 0.30, making it nearly impossible for us to lose. Our edge eventually conceivably could be fattened even more by the short sale of June 17.50 calls after the Mays expired. If we were to sell the Junes for, say, 1.30, with the stock trading near 17 after the May expiration, that would further reduce our basis cost for the Julys, which we would then effectively own for a net credit of 1.60. This means that, for every July purchased originally for 0.90, we would make a profit of at least \$160. Were the stock sitting at \$17.49 when the May series expired, our July 17.50 calls might be trading for around 2.00, giving us an additional profit of \$200 per calendar spread, for a total of \$350 – not bad, considering that only 0.90 per July 17.50 was risked initially.

This profit was made on a 25-percent rally in the stock, from 14 to 17.50. If we had originally bought an in-the-money option – a July 12.50 call, say, instead of a July 17.50, our profit would have been about \$300 on an initial outlay of \$250 or so. This is not too shabby either, but it pales in comparison with the results of our leveraged play at the 17.50 strike price.

Build Your Edge One Step at a Time

The method detailed above is just one way to approach an option trade. It began with a bullish hunch on Royal Gold, and once the initial piece of our strategy was in place, position risk had been trimmed by nearly 20 percent, from 0.90 to 0.75. Repeating the strategy by shorting May and June calls, each in its turn provided a way to further reduce our basis cost for the July – effectively to less than zero – locking in a guaranteed profit with no risk. If you can emulate this strategy, you will be building edge into your position much the way professional floor traders do it – one step at a time, whenever the opportunity exists. Trade wisely!

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