Reader Questions Answered: Options Contracts

Keith Richards

As promised in my last column for the *MoneySaver*, I would answer a reader's question regarding investment strategies. In my last column I answered a question that a reader had regarding the appropriate strategies to invest in ETFs versus individual stocks. In this column, I will cover the basics of options – focusing on the less aggressive strategies involving these investment vehicles. Please understand that options are often used for sophisticated "spread" and "straddle" strategies. I won't be addressing these strategies in this column. Moreover, it might be noted that I no longer trade options in any form for the discretionarily managed models I run for ValueTrend as Portfolio Manager. However, I'm familiar enough with the basic concepts to provide interested readers with the basics—helping you decide whether you should explore these securities within your own investments.

The Basics

An option is a contract that gives the owner the right, but not the obligation, to buy or sell a security at a particular price on or before a certain date. There are two types of options: Calls and Puts.

Call Options

The call option is the right to buy the underlying stock or security at a certain price on or before a certain date. You would buy a call option if you felt the price of the underlying security was going to rise before the option reaches expiration.

Let's say that ABC stock is trading at $25 per share and you want to own the stock. You could buy 100 shares of ABC or you could buy a call option, which represents 100 shares of the underlying security. Say a call option that gives you the right (not the obligation) to buy 100 shares in the next 90 days for $26 per share. All options expire on the third Friday of the month unless that Friday is a holiday, then the options expire on Thursday. Options, like stocks, typically have brokerage commissions associated with them – but I won't include these in the example below. Just be aware that you will always pay the trading fees to follow the examples noted below—so it's not quite as clean a calculation as I provide here.

The price of our imaginary ABC call is $1, meaning that a call could be purchased for $100 ($1 x 100 shares). If the stock rises to $30 per share by or before expiry, you could exercise your option and buy 100 shares at $26 per share and sell them for a pre-cost profit of $4 per share ($30 - $26 = $4). If you subtract your cost of $1 for the option, your after-cost profit is $3 per share. Alternatively, if you didn't want the stock, you could just sell the option for $4 (the value of the call option is higher due to the stock price). This means you turned the original outlay of $100 into $400. However - If the stock went nowhere - or fell from the original $26 per share to $24 per share, the option would expire worthless and you would realize a $100 loss (the cost of the option).

The Put Option

A put option is the opposite of a call—it gives you the right, but not the obligation, to sell a security at a certain price on or before a certain date. You would buy a put option if you felt the price of a stock was going down before the option reached expiration.

Let's look at ABC again. You could purchase a 90 day put option at $24 per share for $100 (or $1 per share), which would give you the right to sell 100 shares of ABC at $24 per share. If the stock drops to $19 per share, you could buy 100 shares on the open market for $19 per share, then exercise your put option giving you the right to sell the stock at $24 per share – making a $4 per share profit ($5 - $1 cost of the put). If you already own 100 shares of the stock, you could just sell your existing shares. Most people will sell the put at expiry which would now be worth $5 per share or $500.

The price of an option is determined by 4 factors. They are:

1. **Current stock price**
2. **Intrinsic value**
3. **Time value**
4. **Volatility**

The current stock price's effect on an option is fairly obvious. The movement of the price of the stock up or down changes the price of the option. As the price of a stock rises, the price of a call option should rise and the price of a put option should decline. If the stock price goes down, then the reverse happens.

Intrinsic value is the value that any given option would have if it were exercised today. An option that has a strike price above where it is trading has no intrinsic value. If our imaginary ABC shares were trading at $20 and you own a $25 call option- you have no intrinsic value. Who would exercise a call to buy shares at $25 when the stock trades at $20? An option with no intrinsic value is called "out of the money".

Just because an option is out of the money (no intrinsic value) doesn't mean the option is completely worthless. The more time an option has until it expires, the greater the chance it will end up in the money. There is a chance the stock will rise, if given enough time. Time value of the option disappears as the option gets closer to expiry—in fact, the time value disappears "exponentially"—meaning it's not a linear disintegration of value. On the expiry date there is no time value left in your option.

Volatility, either past ("historical") or expected ("implied") of the underlying stock affects option pricing. If the market believes a stock will be very volatile, option prices rise. If the market believes a stock will be less volatile, option prices fall. Volatility tries to determine the magnitude of future moves of the stock. Obviously, if the price of the stock tends to move up or down by, say, 10% over a typical 90-day period – then you can expect that the option pricing will incorporate that volatility. The option would cost more, all things being equal, than if its implied or historical volatility was only 5% in a typical 90-day period. The calculations for volatility pricing are complex, and inexact. You really don't know what the volatility (magnitude of movement) of a stock will be in the future. Therefore, the pricing on an option may be too low or too high—something option speculators are hoping to exploit.

Let's now look at a final strategy that ordinary investors –i.e. those not interested in speculating—might want to employ within their portfolios.

Covered Calls

A covered call is an options strategy whereby an investor holds a stock and writes (sells) call options to generate increased income. It's best to write calls on stocks you own if you expect little or no increase in the underlying stock price for the life of the short call option. A covered call serves as a small hedge and allows investors to earn extra returns on the stock. The hedge comes from the premium received on writing the call. If the stock falls $1/share by expiry, and you collected $1/call in premium (net)—you broke even for that period despite the stock's decline. However, if the stock goes up past the strike price you write the call at, you forfeit the stock's increase past that strike price. For example, you own ABC stock, it trades at $25 and you write a call option for $1 extra income. The option has a strike price at $26. If the stock goes past $26 by expiry, you must provide 100 shares to the buyer of the option at $26 if it is exercised. So if ABC went to $30 by expiry, all you got was $26 (sold to the options buyer) plus $1 extra revenue from selling the option.

Options are a complex subject. I have written calls on stocks that I felt were going sideways in the past. But it's not as easy as it sounds – which is why I don't bother with the strategy any longer. Remember, you may not sell your stock so long as that option is outstanding. So if some great catastrophe sends the stock or the market down – you can't sell your stock unless you buy back the option and pay the trading fees associated - otherwise you are "naked" the option, as it isn't covered by the stock shares you hold. True, the option will be at a lower price and cheaper to re-buy – but you have that added cost and the associated trading fees to add to your misery. Conversely, if something wonderful happens and the stock soars – you will be "called out" and forced to sell the stock. You will miss out on the upside beyond the options exercise price. For this reason, some investors like to sell "way out of the money" calls –meaning that the exercise price is well above its current price. But that, of course, means you get a much lower premium for the option, and you still pay those pesky trading fees. You see? There truly is no such thing as a free lunch.

Before investing in options, spend a fair amount of time reading up on them. Talk to somebody who trades options in the way you are considering using them – and ask them for advice. There are stockbrokers who specialize in options, and they may be the right source to start investing with while you learn the ropes.

Keith Richards, Portfolio Manager, can be contacted at krichards@valuetrend.ca. Worldsource Securities Inc., sponsoring investment dealer of Keith Richards and member of the Canadian Investor Protection Fund and of the Investment Industry Regulatory Organization of Canada.