How to Use Stock Options to Reduce Risk and Enhance Your Portfolio’s Returns

By Jim Fink, CFA

INTRODUCTION
Stock options don’t lose money. People lose money.
Options are an incredibly flexible tool that investors can use to protect, boost and diversify their portfolios — or lose a whole lot of money. Smart options investors can reduce their risk, while reckless investors can lose 80% or more of their money much faster than sticking with stocks. But we know that readers of InvestingDaily.com invest intelligently — and options can certainly be part of a smart strategy.

Options aren’t for beginning investors. But this doesn’t mean you need to be a super-sophisticated professional trader to benefit from them. Instead, we believe it’s valuable to give ordinary investors a firm knowledge of what options are and how to use them. If you’re interested, we want to help you do your homework before jumping in, so here is your primer on options along with several strategies to profit with them.

I’ve been trading options for 20 years, and I wish someone had written this type of guide for me. I’m excited to share some of my experience and open the world of options to a new group of investors.

OPTIONS ARE MAINSTREAM
Once the province of expert traders and hedge funds, options have finally hit the big time as the average retail investor now has access to real-time trading technology and data analytics. Options trading volume has exploded, growing 40% annually as more investors have discovered the power of options to enhance returns. This past May alone, more than 400 million option contracts traded, a record high!

Although options derive their value from the current price of a stock, there’s a real business underlying that stock, and you can estimate the value of that business. If you have a fundamental understanding of a stock’s true value — and how it differs from the current stock price — you can use that to your advantage with options.

OPTIONS ARE A NEW ASSET CLASS
Some argue that options are just a more volatile form of stock trading, but a recent Goldman Sachs study argues that option volatility is actually a separate asset class, one that can be used to diversify a stock portfolio and actually reduce its level of risk!

The great thing about a volatility trade is that you can make money even if you don’t have a clue what direction a stock is going to take. Buying a straddle (the simultaneous purchase of a call and a put) makes sense when implied volatility is very low and you expect an explosive increase. Selling put options is a great strategy after a general market panic because the price of options (i.e., implied volatility) skyrockets. People become afraid and are willing to pay almost any price for put insurance — leaving the contrarian put seller sitting pretty collecting the rewards.
According to *Barron's Magazine*, the study found:

- Selling index volatility offers significant, passively-generated returns because big institutional investors often buy options to hedge their positions, which bids up their price and makes them overvalued.
- Returns are large enough to justify a substantial allocation to volatility.
- Volatility selling tends to outperform long equities in hostile markets, offering diversification benefits.

In fact, one of the volatility strategies studied was profitable 69% of the time and another returned 11.2% annually, all the while reducing risk and providing diversification!

**WHY USE OPTIONS: DIVERSIFY AND REDUCE RISK**

Do you want exposure only to a stock’s price movement between $50 and $60 for the next six months? Done. How about exposure to everything below $50 or above $60 (but not in between) for the next two years? No problem. Bottom line: You can use options to profit in any kind of market. You can buy options in a speculative attempt to triple your money or as risk-reduction insurance to protect an existing stock position. You can sell options to generate monthly income. Or you can use spreads to buy and sell at the same time — possibly turning a losing investment into a winner.

- Do you own shares of Wal-Mart Stores (NYSE: WMT) or Microsoft (NasdaqGS: MSFT), which have gone nowhere for years? You can write call options against those shares to produce an income stream.
- Are you concerned that the upward price momentum of Netflix (NasdaqGS: NFLX) or Baidu.com (NasdaqGS: BIDU) is over? You can buy a put option, which could protect your current profits if the stock subsequently tanks.
- Do you believe that Lowe's Companies (NYSE: LOW) or Johnson & Johnson (NYSE: JNJ) is mind-numbingly cheap? Instead of buying shares, you could magnify your gains by buying calls. Heck, you could leverage those potential gains even further by selling other options against your long call position — which could reduce the amount of your money at risk.

Most investors’ portfolios are 100% long stock. This works wonderfully during a bull market — like the mega-bull we enjoyed from 1982 to 2000 and the mini-bull from 2003 to 2007 — but the good times of buy-and-hold investing are long gone. Ed Easterling, founder of Crestmont Research and author of *Unexpected Returns*, believes the United States is in the midst of a secular bear market that will require investors to “row, not sail.” Vitaliy Katsenelson, author of *Active Value Investing*, similarly believes we’re in a range-bound market — stuck in a channel without new highs or lows — for the foreseeable future and that investors will need to trade more (such as selling after upswings) in order to profit.

Options can help you profit from bear markets as well as range-bound markets, and that means they’re a perfect way to diversify away from a long-only, buy-and-hold stock portfolio. Profiting from stagnant and declining prices are just two ways you can “row” your portfolio to gains in a difficult market full of headwinds.

You buy insurance on your house and on your car. So why wouldn't you buy insurance on your investment portfolio? I hear people say they don’t want to buy options because they could lose money, but think about it this way: If you lose the money you paid for homeowner’s insurance, it’s because your house didn’t burn down. Shouldn’t you be happy about that? Similarly, if the insurance options you buy lose value, it’s because your stock portfolio didn’t. And unlike regular insurance, some forms of options-based insurance can perform double duty as both a hedge and a profit opportunity. You can protect your portfolio and earn extra income at the same time.

Calls and puts, alone or combined with each other or positions in the underlying stock, can provide leverage or protection to a portfolio and help you:

- Profit in bull, bear or flat markets
- Protect gains in a stock that looks shaky
- Generate steady income from an underlying portfolio of blue-chip stocks
- Attempt to double or triple your money

But no matter how you use options, remember that there’s no free lunch. Insurance costs money — money that comes out of your potential profits. Steady income comes at the cost of limiting the prospective upside of your investment. Seeking a quick double or triple has the accompanying risk of wiping out your investment in its entirety.

You can use options intelligently to make more money. I’ll show you what options are, how they relate to stocks and how they are priced. In addition, I’ll provide you with options strategies that you can use in combination with your existing stock positions or as standalone trades.
PART 1: OPTIONS BASICS

Stock options are derivatives — they derive their value from an underlying something else, the value of a stock. Each option contract represents the right to buy or sell 100 shares of that underlying stock at a certain price on or before a certain date.

The profitability of an option trade depends on correctly predicting the direction that the underlying stock will move (or not move) by a particular date. But those predictions don’t have to be random guesses. To use options well, you’ve got to have a healthy understanding of the intrinsic value of the business involved. We can use our stock analysis skills to make options a successful strategy.

There are two types of options: calls and puts. And there are two sides to every option transaction: the party buying the option, who has a long position, and the party selling (also called writing) the option, who has a short position. Each side comes with its own risk-reward profile and its own strategies.

A call is the option to buy the underlying stock at a predetermined price (strike price) by a predetermined date (expiration, which is usually the third Friday of a month). The expiration can be as soon as next month or as distant as two and a half years away. If the call buyer decides to buy the stock — an act known as exercising the option — the call writer is obliged to sell his shares to the call buyer at the strike price.

If a call is the right to buy, then a put is the option to sell the underlying stock at a predetermined strike price until the expiration date. The put buyer has the right to sell shares at the strike price, and if he decides to sell, the put writer is obliged to buy at that price.

<table>
<thead>
<tr>
<th></th>
<th>Call</th>
<th>Put</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buyer (Long)</td>
<td>Right to buy stock</td>
<td>Right to sell stock</td>
</tr>
<tr>
<td>Seller (Short)*</td>
<td>Obligation to sell stock</td>
<td>Obligation to buy stock</td>
</tr>
</tbody>
</table>

A call buyer makes a profit when the price of the underlying shares rises. The call option’s price will normally rise as the shares do, because the right to buy stock at a constant strike price becomes more valuable if the stock is priced higher. The call writer is making the opposite bet, hoping for the stock price to decline or, at the very least, not rise above the strike price by more than the amount he received for selling the call in the first place.

*Note: Because an option is a derivative contract, it can be sold without owning it first.

The put buyer profits when the underlying stock price falls. A put increases in value as the underlying stock decreases in value, because the right to sell stock at a constant strike price becomes more valuable if the stock is priced lower. Conversely, a put writer is hoping for the stock price to rise or, at the very least, not decline below the strike price by more than the amount he received for selling the put in the first place.

In reality, few retail investors hold options all the way to expiration and actually see their shares change hands through the exercise process. Options are, after all, tradable securities. As circumstances change, most investors lock in their profits (or losses) before expiration by selling options they had previously bought or buying back options they had sold.

OPTION SYMBOLS

Options come with a plethora of symbols, but they’re really quite easy to decipher. An option symbol consists of the following six components:

- Underlying stock’s ticker symbol
- Two digits representing the calendar year
- Two digits representing the expiration month
- Two digits representing the expiration day
- Letter P or C identifying a put or a call
- Strike price

For example, the ticker symbol of an Apple (NasdaqGS: AAPL) put option with a strike price of $260 that expires on January 21, 2012 is:

AAPL 12 01 21 P 260

"IN THE MONEY," "AT THE MONEY," "OUT OF THE MONEY"

Traders describe options by the relationship of the strike price to the price of the underlying stock. For calls, if the stock price is above the strike price, the option has intrinsic value, because it allows you to buy the stock at a better (lower) price than someone who doesn’t own options could buy it on the open market. That makes the option in the money (ITM).

For puts, the reverse is true; the option has intrinsic value if the stock price is below the strike price, because it allows the holder to sell the stock at a higher price than available on the open market. If the stock price is equal to the strike price, the option is considered at the money (ATM), because it’s “on the verge” of having intrinsic value.

An option is out of the money (OTM) when it has no intrinsic value. For calls, this occurs when the strike price is above the stock price, and for puts, this occurs when the strike price is below the stock price. The following table illustrates the point with a fictional “XYZ” stock trading at different prices in relation to its call and put options at the $75 strike price:

<table>
<thead>
<tr>
<th>XYZ Stock Price:</th>
<th>$70</th>
<th>$75</th>
<th>$80</th>
</tr>
</thead>
<tbody>
<tr>
<td>$75 Call</td>
<td>OTM by $5</td>
<td>ATM</td>
<td>ITM by $5</td>
</tr>
<tr>
<td>$75 Put</td>
<td>ITM by $5</td>
<td>ATM</td>
<td>OTM by $5</td>
</tr>
</tbody>
</table>
“TIME VALUE”

Prior to expiration, all options (even those sorry OTM ones) have another type of value: time value. Stock prices are always moving, so there’s always the chance that an option will move into the money during its “lifetime” (i.e., doesn’t expire). Time value puts a price on that potential for ITM movement. At an option’s expiration, there’s no time value remaining, and the final value (if any) is limited to an option’s intrinsic value. However, intrinsic value can’t be less than zero, since the call option holder can simply choose not to exercise a call with a strike price of $75 if the same stock is trading in the market at $70. (If you know someone who would do such a thing, please send me his contact information.)

An option’s time value has a unique feature called time decay. Since options are, in essence, a bet on the future price movement of a stock, time is a prime component of an option’s value. The less time remaining until expiration, the less value an out-of-the-money call option — where the strike price is above the current stock price — has, because it becomes less likely that the stock will rise enough to let the option expire in the money. With each passing day, the time value of an option declines.

Consider the following range of call options on Lowe’s (this time, we’ll use Lowe’s actual closing price on August 6th of $20.28):

<table>
<thead>
<tr>
<th>Strike Price</th>
<th>Symbol</th>
<th>Expiration</th>
<th>Intrinsic Value</th>
<th>Time Value</th>
<th>Option Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>$19.00</td>
<td>LOW100821C19</td>
<td>August 2010</td>
<td>$1.28</td>
<td>$0.22</td>
<td>$1.50</td>
</tr>
<tr>
<td>$19.00</td>
<td>LOW100918C19</td>
<td>September 2010</td>
<td>$1.28</td>
<td>$0.47</td>
<td>$1.75</td>
</tr>
<tr>
<td>$19.00</td>
<td>LOW101016C19</td>
<td>October 2010</td>
<td>$1.28</td>
<td>$0.68</td>
<td>$1.96</td>
</tr>
<tr>
<td>$21.00</td>
<td>LOW100821C21</td>
<td>August 2010</td>
<td>$0</td>
<td>$0.33</td>
<td>$0.33</td>
</tr>
<tr>
<td>$21.00</td>
<td>LOW100918C21</td>
<td>September 2010</td>
<td>$0</td>
<td>$0.61</td>
<td>$0.61</td>
</tr>
<tr>
<td>$22.00</td>
<td>LOW100918C22</td>
<td>September 2010</td>
<td>$0</td>
<td>$0.30</td>
<td>$0.30</td>
</tr>
</tbody>
</table>

October (69 days away), has a time value of $0.68. More time means more value.

• For options with a common expiration date, time value is greater the closer the strike price is to the stock price. As the stock price moves further away in either direction, time value falls. The option’s time value decreases the further into the money the option becomes because once an option is ITM, it’s “made the big time” and has intrinsic value. Time now is a two-edged sword for the option — whereas before time was purely a positive when the option was OTM. Although the stock continues to have time to move in the direction that increases the option’s value (positive), it also now has time to move in the wrong direction, causing the option to fall back OTM (negative).

EXERCISE AND ASSIGNMENT

Exercise at expiration is automatic if the option is at least one penny “in-the-money.” Most stock and ETF option traders close out their positions prior to expiration to avoid the complications of stock transactions and potential margin calls (most index options settle in cash, so there are no such complications with those).

Exercise prior to expiration (i.e., early exercise) must be elected by the option owner. Early exercise of options is relatively infrequent because it means that the owner is forfeiting whatever time value the option possesses. Early exercise, when it does occur, most often involves an option that is in-the-money, pays a dividend and is near expiration.

The matching of an exercising option holder with an assigned option writer is handled behind the scenes by the Options Clearing Corporation, a triple-A-rated organization that guarantees performance by both buyer and seller.

EUROPEAN OR AMERICAN?

Options are either “European” or “American” style. These terms don’t refer to geography, but simply denote differences in the exercise stipulations attached to the options. A European-style option is one that can only be exercised at expiration and not before. This makes European options desirable for traders who sell options because they don’t risk waking up in the morning and finding out they have been assigned overnight. An American-style option is one that can be exercised at any time right up to expiration. Most cash-settled index options are European, whereas options on individual stocks and ETFs are American.
Editor’s Note: Part 2 is for the hard-core options student who wants to understand the theory behind options. If you have limited time and just want to learn about practical options strategies, feel free to skip this section and move on to Part 3.

There are more mathematical models to price options than fish in the ocean. The granddaddy of them all, the whale shark of the Black-Scholes model, was first published in 1973, and many others have popped up since then, with strange names like Bjerksund-Stensland, Barone-Adesi and Whaley, Carr-Geman-Madan-Yor, Merton’s jump diffusion. My reaction: blah, blah, blah.

You don’t need to understand these models to trade options, just like you don’t need to know how to construct a carburetor in order to drive a car. Leave the pricing models to the market makers and the hedge funds; they keep each other honest and option prices efficient (most of the time).

Here’s what you do need to know: Option prices are derived from stock prices; they do not independently judge the proper value of a stock. In other words, option prices are priced with the assumption that the underlying stock price is always fairly valued. An option’s value is based on the relationship between the stock price and the strike price, as well as the time to expiration, interest rates, dividends and — most importantly — expected volatility around the fair value stock price. Most option pricing models assume that the likelihood of a stock moving up by 15% is the same in the short term as the likelihood of a stock moving down by 15%.

Long-term calls are always more expensive than long-term puts of similar strikes. The reason is that calls provide investors with the upside of stock without the need to incur the significant cost of buying the stock itself, and the interest expense saved in not buying the stock can be substantial, especially over long periods of time. Conversely, interest rates cause put option valuations to decline because the sales proceeds of shorting stock can bring in income, which is lost when you buy puts for downside exposure instead.

The stock-neutral assumption of option pricing provides value investors with an advantage, because we almost never assume that the underlying stock is at fair value. Warren Buffett says that instead of being the world’s richest man, he would be “a bum on the street with a tin cup if the markets were always efficient.” A perception of the underlying stock’s fair value gives you the opportunity to buy a significantly undervalued option or sell a significantly overvalued option. Options and fundamental analysis do mix!

**Expected Volatility is the King-Pin of Option Valuation**

The more the stock price is expected to move above and below its fair value, the higher the implied volatility (IV) of its options and, consequently, the more expensive its options will be. This makes sense since the larger the expected move in the underlying stock price, the more in-the-money (i.e., intrinsically valuable) an option is expected to become. So, when option traders speak of an option being “expensive” or “cheap” they are referring to the option’s IV, not to the perceived fair value of the underlying stock.

The formal definition of volatility is one annualized standard deviation (in terms of percentage return) away from the current stock price. One standard deviation for a normal distribution represents the range of return outcomes that will occur 68% of the time. Consequently, an IV of 20% means that the market expects that roughly two-thirds of the time a $50 stock will be trading somewhere between $40 and $60 over the next year.

To determine the IV of a stock for a period other than one year, you multiply the annualized IV by the square root of the quotient number of days until expiration divided by the 365 days in a year. So the one-week IV of a stock option with an annualized IV of 20% would be: \[20 \times \sqrt{7/365} = 2.8\%\].

Important to remember: the 68% probability inherent in IV calculations is based on a theoretical model and is an educated guess only. It should not be confused with probabilities based on mathematical certainty (e.g., the 1-in-6 odds of throwing a die and having it come up 3).

One must distinguish between the historical volatility a stock actually exhibits in the marketplace and its IV. Option prices are based on future expectations (i.e., the IV), not on the past. Consequently, options on a stock that has recently been incredibly volatile could be relatively inexpensive if traders believe such historical volatility was an anomaly (i.e., CEO dies unexpectedly or the company experiences a temporary earnings decline) that won’t be repeated in the future. Academic studies have shown that index option IV has tended to overestimate future actual volatility, resulting in overpriced options. This explains why selling options in conjunction with long stock or long options has proven very profitable over the years.

To find the IV of any stock option series, you can join www.involatility.com as a free member and it will show you how the current IV relates to the 52-week range of IV values. You can also go to http://www.optionetics.com/market/rankers/ and see a list of those stock options closest to their 52-week high and those closest to their 52-week low. An option’s IV typically peaks at the time of earnings announcements and, for drug companies, FDA decisions as well. Volatility is “mean reverting,” or oscillates within a range, so that when it is at the low end of the range it tends to increase, and when it is at the high end of the range it tends to decline. For example, the volatility index (Chicago Options: ^VIX), which is the 30-day implied volatility of the S&P 500 index options, typically trades within a range between about 10% on the downside and 50%-60% on the upside (although during the great 1987 crash, volatility briefly reached an unheard-of 172.79%). Many option traders overweight going-long options when the VIX is “low” and overweight going-short options when the VIX is “high.”

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**PART 2: OPTIONS PRICING AND BEHAVIOR**

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**OPTION “GREEKS”**

Stocks are simple, dull creatures (think of a manatee); you can own them forever and they either go up, down or stay flat. That’s it.

In contrast, options are like peacocks composed of many different colors and layers. There are many sides to options and these are explained by “the Greeks,” which measure an option’s performance characteristics.

**DELTA**

The first greek is delta, which measures how much an option price increases for every $1 increase in the price of the underlying stock. By definition, stocks always have a delta of either -1 (short) or 1 (long) — nothing in between — whereas options have a delta anywhere between -1 and 1 (depending whether you are long or short and using puts or calls). Prior to expiration, near-term options with a strike price equal to the stock price (i.e., at the money) have a delta of 0.50 (+ or -). At expiration, all in-the-money options have deltas of either 1.0 or -1.0 and all at-the-money and out-of-the-money options have deltas of zero. Long calls/short puts have positive delta and short calls/long puts have negative delta. Importantly, unlike stocks, an option’s delta is not fixed but changes with the stock price, which brings us to the second Greek . . .

**GAMMA**

Gamma measures the rate by which an option’s delta changes. For you calculus fans, gamma is the first derivative of delta and is what makes options such a powerful tool in magnifying returns. All long options have positive gamma and all short options have negative gamma. Let’s assume that a stock is trading for $50 and we are interested in an at-the-money call option with a strike price of $50. Take a look at the following table:

<table>
<thead>
<tr>
<th>Stock Price:</th>
<th>$30</th>
<th>$35</th>
<th>$40</th>
<th>$45</th>
<th>$50</th>
<th>$55</th>
<th>$60</th>
<th>$65</th>
<th>$70</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Long Stock Delta</strong></td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Stock Gamma</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Long Call Option’s Delta (Prior to Expiration)</strong></td>
<td>0.16</td>
<td>0.23</td>
<td>0.31</td>
<td>0.40</td>
<td>0.50</td>
<td>0.60</td>
<td>0.69</td>
<td>0.77</td>
<td>0.84</td>
</tr>
<tr>
<td><strong>Long Call Option’s Gamma (Prior to Expiration)</strong></td>
<td>0.07 (up)</td>
<td>0.07 (down)</td>
<td>0.08 (up)</td>
<td>0.08 (down)</td>
<td>0.09 (up)</td>
<td>0.09 (down)</td>
<td>0.10 (up)</td>
<td>0.09 (down)</td>
<td>0.08 (up)</td>
</tr>
</tbody>
</table>

Gamma is greatest right at-the-money (ATM) and diminishes the further out you go either in-the-money (ITM) or out-of-the-money (OTM). This makes sense since an option’s greatest increase in value occurs when it is transformed from an intrinsically worthless OTM option to an intrinsically valuable ITM option. But the delta of the call continues to increase the further ITM the option becomes and will eventually equal 1. This “delta acceleration” is the leveraged power of options: while a stock’s value increases dollar for dollar, a call option’s gain per dollar of stock upside accelerates. Even better perhaps, a call option’s losses per dollar of stock decline decelerate. Look at the example above: when the stock increases from $50 to $55, the call option gains $2.50 in value ($5 * 0.50 delta), but when the stock decreases from $50 to $45, the call option only loses $2.00 ($5 * 0.40 delta)! It’s pretty cool that long option holders lose less on the downside than they make on the upside for the same-size move in the stock! That’s what I call a good risk/reward ratio.

**THETA**

Options are limited-life instruments and, consequently, the time value portion of their prices decays as the option moves closer to expiration. After all, time value is zero at expiration! Theta measures the amount of time value decay an option experiences per day. All long options have negative theta and all short options have positive theta. Theta and gamma are the two most important Greeks; they are the twin pillars that make options special. Whereas gamma is the secret sauce for option buyers (i.e., super-charged appreciation potential), theta is the magical pixie dust for option sellers (income generation). Theta, like gamma, is greatest at the money. Time value is greatest ATM; the more time value, the more available to decay. Time value does not decay at a constant rate, but accelerates exponentially the closer you get to expiration. Check out the following link for a chart on time decay: [http://www.trading-plan.com/options_time_decay.html](http://www.trading-plan.com/options_time_decay.html).

The waterfall decline in time value takes off around six weeks prior to expiration, so I don’t recommend buying single options during the last 42 days of their lives. However, selling options during this last six weeks is a great way to take advantage of time decay.

Gamma increases exponentially near expiration also. In
fact, gamma and theta move in tandem but benefit from completely opposite types of price movement. They are the yin and yang, the light and dark side of the Force, and good vs. evil, all depending upon whether you are a buyer or a seller. If you are long options, you benefit from gamma if the stock makes a strong move in your direction, but are hurt by theta if the stock stagnates. If you are short options, you benefit from theta if the stock stagnates, but are hurt by gamma if the stock makes a strong move.

VEGA
In reality, vega is not a Greek letter, but it sounds like one and is used to measure the sensitivity of an option’s price to a one-percentage-point change in implied volatility. As mentioned previously, expected volatility is the main determinant of an options price — the higher the volatility, the higher the option price. All long options have positive vega and all short options have negative vega. Consequently, if you expect — or are insuring against — an unsettled market, you want to be long options and, alternatively, if you expect a period of quietude, you want to be short options.

PUT-CALL PARITY AND STOCK-OPTION SYNTHETICS

Many stock investors are afraid of stock options. They avoid using them because they think options are dangerous and risky — like some sort of mysterious alien creature. This impression is mistaken. What if I were to tell you that options and stocks were closely related? In fact, that call and put options can be combined to mimic stock — EXACTLY. Would you still be afraid? Knowledge is the cure for fear.

In chemistry terms, call and put options are the “atoms” that make up a stock “molecule.” When you buy a stock, you are buying exposure to the full range of a stock’s price movement — up and down — for an unlimited period of time. It’s a very blunt investment instrument that’s sort of like being forced to buy a telephone package of local, long-distance, call waiting, caller ID, voicemail, distinctive ringing, etc. when all you really want is a dial tone. Options allow you to limit your exposure to only those portions of a stock’s price movement that you want — and for only the period of time you think necessary. This provides the trader with virtually unlimited flexibility to tailor his directional and temporal outlook at the lowest possible cost.

Options give you the flexibility to profit from your fundamental outlook on a stock, whether that’s bullish, bearish or something in between. Options allow you to limit your exposure to only those portions of a stock’s price movement you want — and for only the period of time you think necessary.

Stock is nothing more than complete exposure to a set of price points, which is modeled as a diagonal straight line:

The slope of the stock line is the delta, or 1.0. Assuming you purchased 100 shares of stock at $50 each, you make $100 for each point the stock rises up until infinity, and you lose $100 for each point the stock drops until zero. Complete exposure.

In contrast, a long call option exposes you beneficially only to any upward stock movement:

At option expiration, a call option that is “in-the-money” (i.e., the stock price is above the option’s strike price) has a delta of 1.0 (just like stock). But, unlike stock, a call option that is “out-of-the-money” or “at-the-money” (i.e., the stock price is at or below the option’s strike price) has a delta of zero. Other than the initial, fixed cost of buying the option itself, you don’t lose any money regardless of how far down the stock goes.

A short put option lets you gain from the initial, fixed premium you receive from selling the option, but exposes you negatively to all downward stock movement:

At option expiration, a put option that is “in-the-money” (i.e., the stock price is below the option’s strike price) has a delta of -1.0 (just like stock). But, unlike stock, a put option that is “out-of-the-money” or “at-the-money” (i.e., the stock price is at or above the option’s strike price) has a delta of zero.

A trader who simultaneously buys the $50 call and sells the $50 put has a combined delta position of either 1.0 or -1.0, depending on where the stock closes at option expiration. If the stock closes above $50, the call’s delta is 1.0 and the put’s delta is zero so the combined delta is 1.0. If the stock closes...
below $50, the call’s delta is zero and the put’s delta is -1.0 so the combined delta is -1.0. Hey, the result of this option combination is . . . the same delta as long stock!

This pictorial demonstration explains the essence of put-call parity. The combination of a short put and a long call equals the risk-reward of long stock. In other words, options are the building blocks of stock!

**PUT-CALL PARITY EXPLAINS ALL**

The actual put-call parity formula of calls and puts at the same strike price is:

\[
\text{Call - Put} = \text{Stock Price - Strike Price} + (\text{interest cost of buying stock at strike price-dividends})
\]

If you make the following simplifying assumptions: (1) stock is trading right at the strike; (2) interest rates are zero; and (3) the stock doesn’t pay a dividend, see what happens:

\[
\text{Call - Put} = 0
\]

or

\[
\text{Call} = \text{Put}
\]

So, now you know where the put-call parity concept comes from! Because interest rates are almost always greater than zero, however, in reality calls will be valued slightly higher than their put counterparts.

**SYNTHETICS**

Ok, so let’s assume you’re not really interested in the equation that equalizes dollar amounts, but only the equation that measures the risk and reward of price movements? To find this, you take the first derivative of the put-call parity equation, so that you only are looking at how prices change, rather than their absolute values. Since the strike price never changes and interest rates and dividends are fixed in the short-term, their derivatives all equal zero, and the risk-reward equation becomes very simplified:

\[
\text{Change in call} - \text{change in put} = \text{change in stock}
\]

Voila! You have just derived the key formula needed to determine the six option synthetics that have equivalent risks and rewards. Drum roll, please . . .

1. stock = long call + short put
2. call = long stock + long put
3. put = long call + short stock
4. short stock = long put + short call
5. short call = short stock + short put
6. short put = long stock + short call

Synthetic No. 6 is interesting because it means that the commonly-used covered call strategy of selling calls against stock is equivalent in risk and reward to simply selling a put. Remember that the next time your broker tells you that you can sell covered calls but you can’t sell puts!

So which should you buy — the real thing (left side of equation) or the synthetic? If you are initiating a new position, I recommend you simply buy the real thing because it requires the fewest commissions. Consequently, I’d buy a put option rather than its synthetic, which requires both purchasing a call and shorting stock.

**Exception:** If the put option had a much higher implied volatility than the call option (remember, in the world of options, expensiveness is measured by volatility), I might consider buying the synthetic instead. But keep in mind that market efficiency (a.k.a. the professional option trader) normally keeps the put and call volatilities at the same strike in synch with each other. These professional traders often buy stock and sell its synthetic call/put combo (or vice versa) in order to arbitrage a difference in implied volatilities. These are called conversion (long stock, short option combo) and reversal (short stock, long option combo) trades.

**MORE COMPLICATED EXAMPLES OF SYNTHETICS: STRADDLES AND COLLARS**

Once you understand synthetic relationships, you can easily break down any complex-looking options and stock position into its basic components.

Take, for example, a straddle, which is the combination of a long call and a long put at the same strike price. Traders initiate straddle positions if they aren’t sure which direction a stock is going to move but are confident it is going to move big one way or the other. According to Synthetic No. 2, a long call is equivalent to long stock plus long put. So, by replacing the long call with its synthetic equivalent, another way to initiate a straddle position would be: long stock plus two long puts. This is known as a synthetic straddle:

\[
\text{Long call plus long put (straddle)} = \text{Long stock plus two long puts (synthetic straddle)}
\]

Another example would be a collar trade, where an investor is long stock and wants to protect his profits by selling a covered call at a strike price above the current stock price and by buying a put at a strike price below the current strike price. Elliott Gue discusses collars in his Energy Strategist investment service, and mentions that Linn Energy (NasdaqGS: LINE), a recommendation in both Energy Strategist and MLP Profits, uses collars as a hedge against declines in natural gas prices.

Anyway, let’s use IBM (NYSE: IBM) as an example, one of Elliott Gue’s top growth stock recommendations in his Personal Finance investment service. An owner of IBM, which is currently trading at $127, could collar the stock by selling an August $130 call and buying an August $120 put. According to Synthetic No. 5, a short call is equivalent to short stock plus short put. So, by replacing the short $130 call with its synthetic equivalent, another way to initiate a collar position on IBM would be a bullish credit put spread: short $130 put plus long $120 put. Similarly, according to Synthetic No. 3, a long put is equivalent to a long call and short stock. So, yet another way to express an IBM collar would be to replace the long put with its synthetic equivalent, creating a bullish debit call spread: long $120 call plus short $130 call. To sum up:
Long stock plus long $120 put
plus short $130 call (collar) =
Long $120 put plus short $130 put
(credit put spread) =
Long $120 call plus short $130 call
(debit call spread)

ADJUSTING YOUR RISK EXPOSURE IS EASY!

Lastly, knowledge of synthetic relationships can be used to adjust your position to obtain a different risk exposure. Own a near-term call option but afraid the stock won’t move much and don’t want to suffer any more time decay? You could just close out your call position, but then you would lose out on any stock price appreciation that did end up occurring.

A second possibility would be to look at Synthetic No. 1 and decide to sell a put option at the same strike as your call — your position would instantaneously change to equal the risk exposure of decay-free stock! Own a synthetic straddle (long stock plus long two puts) on a stock that you’ve become more bullish on? Simply sell one of your two put options and convert your position into a call option (long stock plus long put)!

The possibilities are endless.

PART 3:
OPTIONS STRATEGIES

That’s the theory — now let’s make money! You can use options in addition to your stock portfolio or to replace stocks entirely. Below are seven options strategies that you can use to generate profits in any type of market environment: bullish, bearish, flat or explosive.

STRATEGY NO. 1:
INSURE STOCK YOU OWN AGAINST A DECLINE

Buying puts can protect your existing stock position by limiting your loss from a price decline.

CASE STUDY: WELLCARE HEALTH PLANS

It’s Oct. 2, 2007. You bought 500 shares of WellCare Health Plans (NYSE: WCG) for $41 in January 2006 and have watched it appreciate to $110. You still like the stock's prospects, but you’re worried about the short-term outlook and don’t want to give back your substantial profits of $69 per share. A traditional stock solution might be to set a stop-loss order at $100 in the hopes of limiting your loss to $10 per share, but you remain vulnerable to a sudden move that could cause the stock to open one day far lower than where it closed the day before. Instead, you can use options to avoid the risk of such a “gap down” and guarantee that your maximum loss will be limited to the cost of your option protection.

Option Solution: Buy a Put. With the stock trading at $110, complete protection requires that you buy a put with an equivalent strike price, which will allow you to sell the stock at $110 — and thus guard you from loss if the stock falls below $110. Consequently, you decide to buy five March 2008 puts (each put contract represents 100 shares) at the $110 strike price, for $10.75 per share ($1,075 per contract). That put insurance costs you 9.8% of your stock price for a little less than six months of protection, or 1.6% per month.

Buying the put limits your loss on the stock position to the cost of the insurance, or $10.75 per share, regardless of how far the stock price falls. If the stock falls to $100 at expiration, you will lose $10 per share on your stock position. But you’ll also gain $10 per share on your put position — having the ability to sell the stock for $110 when it’s on the market for $100. That means you’re fully protected, except for the initial cost of the insurance.

On the upside, your breakeven point is the current stock price plus the cost of the put, or $110+$10.75=$120.75. If the stock rises above $120.75, your gains in the stock position will have recouped the cost of the insurance.

How it Played Out: On Oct. 24, three weeks after you bought your WellCare puts, the FBI raided the company’s offices, investigating Medicaid fraud. The next day, the stock opened at $64, a $51 gap down from the previous day’s close of $115.

With a traditional stop-loss, the gap down was disastrous. You didn’t sell at $100 as you had planned but at the opening price of $64 — a $46 loss per share from the $110 at the start of our example. On the other hand, the puts protected you fully. At the open on Oct. 25, the $110 put you bought for $10.75 was worth a whopping $47 ($46 in intrinsic value and $1 in time value), or a $36.25 profit. When you first bought the put, the $10.75 price consisted entirely of time value (the strike price equaled the stock price), but with the option now deep in the money, time is much less valuable, and its price is almost all intrinsic value.

With the stock at $64, the stock loss was $46 below the $110 level the stock was at when you bought the put, so the overall loss on your position was $9.75 per share ($36.25 options profit minus $46 stock loss). Since this gap-down event occurred before expiration, the $1 in time value (and its ability to expand in times of emotional panic) made it possible to recoup a bit of your put cost.

The put protected you from all but $9.75 in losses, while a stop-loss on the stock would have cost you the full $46 loss.
Strategy No. 2: Buy Stock Below the Market Price

Selling puts at a strike price below the stock’s current market price provides you with income and an opportunity to buy stock at that lower stock price if the stock falls below it at expiration. Remember, an option is a derivative contract that can be sold without owning it first.

Case Study: Sears Holdings

It’s Jan. 15, 2008. You’re a big fan of Eddie Lampert and think he may be the next Warren Buffett. Consequently, you want to invest in his Sears Holdings (NasdaqGS: SHLD), but you’re worried that the economic slowdown will hurt retailers and want to get into the stock only at a bargain price. The current price of $86.02 isn’t cheap enough — you’d feel more comfortable buying at $75. You could just place a limit order at $75, but there’s a better way.

Option Solution: Sell a Put. You decide to sell five June $75 puts for $7.40 per share. In essence, you’re acting as an insurer of a $75 stock price, and someone is willing to pay you $7.40 to guarantee that price. This means that if the stock falls below $75 at expiration, you’ll be required to purchase the shares at $75. Your net purchase price would be $67.60 ($75 for the shares minus $7.40 you receive from the option), which is even cheaper than you had hoped for. You grab it!

How it Played Out: At the June expiration, the stock closes at $74.75. In a traditional strategy, your limit order hits, and you buy the 500 shares at $75 each, so you have an immediate loss of $125 ($0.25 per share), or 0.3%.

With an options strategy, the buyer exercises your five short puts, and you buy 500 shares of the stock at $75. Since you received $7.40 per share for selling the puts, you immediately have a net profit of $3,575 ($7.40 options income - $0.25 stock loss = $7.15 per share), or 9.5% — on a stock that has fallen 13% in the past five months.

Strategy No. 3: Create Dividends Out of Thin Air

Selling call options can provide you with money in exchange for taking on the liability of exposure to a stock’s future price action above a strike price you select.

Case Study: IBM

It’s Jan. 15, 2003. You’re a longtime holder of 100 shares of IBM (NYSE: IBM) and are relieved that the stock has recovered from its October 2002 low of $54 to its current price of $87.59. With the stock up more than 60% in three months, you don’t expect much more upside in the short term, yet you think the stock won’t go down much, either, since it’s a bastion of blue-chip safety. You want to supplement your monthly income as the stock stagnates.

Option Solution: Sell Covered Calls. Since you think IBM has topped out for now, why not sell the rights to further upside — upside you don’t think will actually occur — to some greedy speculator who thinks differently? The closest strike price to the stock’s current price of $87.59 is the $90 strike. You decide to sell a February 2003 call with a $90 strike price for $3.25 per share. By selling that strike, you cap your potential additional gain in the stock to $5.66 (the $2.41 gain up to the strike price plus the $3.25 you received for selling the call), which is 6.5% from the current price of $87.59. The short call is “covered” because you already own the stock — if it were exercised, you simply deliver your stock to the call owner.

Warning: A short call that is not covered — a “naked short” — is extremely dangerous, because your losses would be theoretically unlimited if the stock skyrocketed upward. For example, if you were to sell the IBM $90 call naked for $3.25 and the stock ran up to $150 at expiration, you would be on the hook for a $56.75 loss ($150-$90-$3.25), because you would be obligated to buy the stock in the open market for $150 and then sell it for $90 to the call owner. Bottom line: Only sell calls that are covered by stock or a long call that you already own!

Although selling the call brings in income, it doesn’t provide much downside protection for the stock. If the stock falls, the call will expire worthless, and you’ll keep the $3.25 you sold it for, but that’s it — the stock could fall much further than $3.25. That means you only want to write covered calls on stocks that you think are solid and stable.

How it Played Out: At the February expiration, IBM had fallen to $79.95, so selling the call was definitely better than doing nothing. It reduced your paper loss by $3.25, but you still have a net loss of $4.39 ($87.59-$79.95-$3.25).

With the stock now below $80 and the February $90 call expiring worthless, you decide to sell another covered call to

<table>
<thead>
<tr>
<th>IBM Covered Call</th>
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</thead>
<tbody>
<tr>
<td><strong>IBM Stock Price</strong></td>
</tr>
<tr>
<td>$87.59</td>
</tr>
<tr>
<td><strong>Profit From Buy and Hold</strong></td>
</tr>
<tr>
<td><strong>Profit From Covered Calls</strong></td>
</tr>
</tbody>
</table>
bring in more income, this time at a lower strike: the March $85 call for $1.00. At the March expiration, IBM closes at $84.90, so the $85 call expires worthless, too. You decide to sell the April $85 call for $3.20. At the April expiration, IBM closes at $84.26, and the call once again expires worthless.

You’ve now generated $7.45 per share in income by selling covered calls for three months, money that you wouldn’t have had by merely holding onto the stock. A buy-and-hold approach would have resulted in a loss of $3.33 per share ($87.59-$84.26), while the covered call approach absorbed the stock losses and still generated a net profit of $4.12, or 4.9%.

**STRATEGY NO. 4: REPAIR A LOSING STOCK POSITION**

Buying and selling call options at little or no net cost can magnify the gains in a stock as it recovers from an initial decline. The gain from that option spread lowers the price you need to break even on your stock investment.

**CASE STUDY: BOEING**

It’s Feb. 15, 2008. You read that Boeing’s (NYSE: BA) 787 Dreamliner is going to be the first jet to use light, fuel-efficient composite materials, and pre-production orders have already made it the fastest-selling jet in history. You decide to buy 100 shares at $85.18. Bad timing! On Feb. 29, the Pentagon awards a contract to build aerial refueling aircraft to Airbus, not Boeing. Investors are disappointed, and Boeing’s stock undergoes a vicious two-week sell-off, falling below $72.50 on March 12. You want to at least break even on your poorly timed trade (a profit would be even better!), but you don’t want to average down and possibly throw good money after bad.

**Option Solution: Buy a 1:2 Ratio Call Spread.** The May $80 call is selling for $1.60, and the May $85 call is selling for $0.80. If you buy one $80 call and sell two $85 calls, your out-of-pocket cost is zero. Yet you have created the potential to make $5 per share (the difference between the $80 and $85 strike prices) if the stock rises to $85 by the May expiration. Since you already own the stock, one of the $85 calls you sell is covered by the stock. The other $85 call you sell is covered by the $80 call you buy (creating a call spread).

The call spread is the turbocharged part of the trade and provides the opportunity to make back your investment losses quickly. A call spread is cheaper than a straight long call, but in return it caps your gain. The lower cost basis makes the capped gain a high-return proposition nevertheless. In our example, the cost of the call spread is $0.80 per share ($1.60-$0.80), with the chance to make $5, for a profit potential of 525%. For no money down, you have converted a breakeven situation into a solid profit possibility.

**How it Played Out:** At the May expiration, Boeing’s stock has climbed back to $85.17, still below your purchase price. However, your long May $80 call is worth $5.17 ($85.17-$80), and your two short May $85 calls cost $0.17 each ($85.17-$85), so your net profit, including the stock loss, is $4.82 per share, or 5.7%.

**STRATEGY NO. 5: STOCK REPLACEMENT AT LOWER COST**

Long-term, deep-in-the-money call options can mimic the profit potential of stock at a much lower out-of-pocket cost.

**CASE STUDY: GOOGLE**

It’s April 7, 2008. You think Google’s (NasdaqGS: GOOG) future is bright as the leading search engine company. You watched the stock decline from $740 in November 2007 to $425 in March 2008 for no company-specific reason, then rebound to $475. You think the rebound is just the beginning of a full recovery and that now is the time to invest. But the price of a single share is incredibly expensive, and your preferred 100 shares would cost $47,500. You don’t want to spend that much on a single stock. What do you do?

**Option Solution: Buy a Long-Term, Deep-in-the-Money Call.**

Think options are short-term gambles? Think again. You can buy options that don’t expire for two and a half years. Instead of buying the stock for $475, you decide to buy a January 2010 call option with a $420 strike price, for $127.35 per share ($12,735 per contract). The call option costs 73% less than 100 shares of the stock, yet gains 100% of the stock’s appreciation if held to expiration.

**How It Played Out:** Your buy looks bad a week later, with the stock down to $447, a 5.9% decline. Your call option is now worth only $113.50 each, which is a larger 10.9% decline. But ask yourself: Have you really lost more with the Boeing 1:2 Ratio Call Spread

<table>
<thead>
<tr>
<th>February 2008: Buy 100 shares of Boeing at $85.18</th>
<th>March</th>
<th>May</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boeing Stock Price</td>
<td>$72.45</td>
<td>$85.17</td>
</tr>
<tr>
<td>Profit from Buy and Hold</td>
<td>($12.73)</td>
<td>($0.01)</td>
</tr>
<tr>
<td>1:2 Ratio Call Spread to the Rescue!</td>
<td>Buy 1 May $80 call for ($1.60) and sell 2 May $85 calls for $1.60 for $0 net cost</td>
<td>($0.01) + $5.17 + ($0.17) + ($0.17) = $4.82</td>
</tr>
</tbody>
</table>

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option position? No! Even though your option lost more on a percentage basis, it lost less on a dollar basis, which is the true way to measure your wealth. A 10.9% decline on an initial $12,735 investment is $1,388, while a 5.9% decline on a $47,500 investment is $2,800. In reality, you lost $1,412 less with your call option. Options actually reduced your risk. Who woulda thunk it?

Move ahead to May 16th. Google’s first-quarter earnings blew away analyst estimates in mid-April, and the stock jumped $90 in a single day on April 21st. The stock has kept climbing and is now worth $580. It’s up 22% since April 7, and the dollar gain on 100 shares is $10,500. In contrast, your call option is now worth $211.90, a 66.4% gain. Your dollar gain is $8,455, 81% of the stock’s gain, despite having invested only 73% less.

Long-term calls are more expensive than short-term calls, but the primary risk of buying options is time decay — the loss of time value. By buying long-term options, we minimize that damage, since time decay doesn’t accelerate until the last few months before expiration.

Google closed at $580 when the call options expired in January 2010, so the $420 call option was worth only $160, not the $211.90 it fetched in May 2008, thus reducing its dollar gain from $8,455 to $3,265; the gain from the Google stock, which doesn’t suffer from time decay, remained $10,500. The lesson: Don’t hold options that expire in the near term; always sell them while there’s plenty of time left until expiration.

**Strategy No. 5(a): Stock Replacement Using Spreads**

But in my world of maximum risk reduction, even reducing the cost of owning Google by 73% by purchasing a call is still too expensive, still too much risk. Consequently, in April 2008 you could have sold a $580 call against the purchased $420 call — thus creating the 420/580 call spread — in order to reduce the cost of the bullish position even further. On April 7, 2008, the $580 call was trading at $61.20 per share ($6,120 per contract), so selling it against the $420 call would have reduced your cost to $6,615 per contract ($12,735-$6,120), an 86% reduction from the $47,500 cost of buying 100 Google shares and a further 48% reduction from the $12,735 cost of buying the $420 call alone.

**Sound Familiar?**

If the mechanics of creating this call spread sound vaguely familiar, you’re not imagining things. It’s very similar to the covered call strategy I discuss in Strategy No. 3. The only difference in the case of the spread is that you are selling the covered call against another call rather than against stock. The risk reduction benefits are simply magnified many times over in the option spread situation, since the sale proceeds of the call you are selling ($6,120) is much closer in value to the call you purchased ($12,735) than to the value of the 100 shares of stock you could have purchased ($47,500).

**Sacrifice Huge but Unlikely Upside for Regional Leverage**

As in the case of a covered call strategy, the “catch” is that you limit your potential upside profit in the stock. In the case of the 420/580 call spread, your maximum profit at January 2010 expiration occurred at $580; any further appreciation in Google’s stock price above $580 would have been collected by the purchaser of the $580 call you sold. But the cost reduction you enjoyed by selling the $580 call was so great that the profit potential remaining was tremendous:

**$420/$580 Call Spread on Google:** Profit/Loss per Contract at January 2010 Options Expiration (1-16-10)

As the table shows, the call spread was the superior investment at all price levels under $728.30 on a percentage profit basis and under $641.20 on a dollar profit basis. What’s so impressive about the spread’s profit outperformance is that it occurs while reducing risk by 48% at the same time!

Because the outperformance of spreads is limited to cases where the stock rises only modestly, option traders often characterize spreads as possessing “regional leverage.” Within the region of modest price appreciation, the spread can’t be beat, but individual calls will outperform in cases where the stock makes a huge price move. But isn’t it better to bet on modest price moves than huge price moves? You betcha.

I especially like the comparison at the $540 stock price. The spread gains 81% while the individual call loses 6%! Amazing. The stock only had to increase by 13.7% for the spread to gain 81%. Now that’s what I call leverage! Financial theory always teaches us that to get more reward you need to take more risk. This options spread illustration belies that notion; you can have your cake and eat it, too!

<table>
<thead>
<tr>
<th>Stock Price at Expiration</th>
<th>$420/580 Call Spread</th>
<th>Call Spread % Profit</th>
<th>Individual $420 Call</th>
<th>Individual Call % Profit</th>
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</thead>
<tbody>
<tr>
<td>$420</td>
<td>-$66.15</td>
<td>-100%</td>
<td>-$127.35</td>
<td>-100%</td>
</tr>
<tr>
<td>$540</td>
<td>$53.85</td>
<td>81%</td>
<td>-$7.35</td>
<td>-6%</td>
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<td>$580</td>
<td>$93.85</td>
<td>142%</td>
<td>$32.65</td>
<td>26%</td>
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<tr>
<td>$625</td>
<td>$93.85</td>
<td>142%</td>
<td>$77.65</td>
<td>61%</td>
</tr>
<tr>
<td>$641.20</td>
<td>$93.85</td>
<td>142%</td>
<td>$93.85</td>
<td>74%</td>
</tr>
<tr>
<td>$700</td>
<td>$93.85</td>
<td>142%</td>
<td>$152.65</td>
<td>120%</td>
</tr>
<tr>
<td>$728.30</td>
<td>$93.85</td>
<td>142%</td>
<td>$180.95</td>
<td>142%</td>
</tr>
<tr>
<td>$775</td>
<td>$93.85</td>
<td>142%</td>
<td>$227.65</td>
<td>181%</td>
</tr>
</tbody>
</table>
WHEN TO CHOOSE CALL SPREAD OR INDIVIDUAL CALL

If you are very bullish on a stock, simply buy an individual call option. You should also buy an individual call if your timeframe is very short. Call spreads are not good for day trades or for trades lasting only a few days because the short option in a call spread needs time to decay for the profit leverage to work.

If, however, your timeframe is intermediate to long-term and you think a stock will go up some but not a lot, buy a call spread to maximize your profits. Substantially reducing your out-of-pocket cost while, at the same time, substantially increasing your profit potential makes a lot of sense.

STRAIGHT NO. 6:
PROFIT FROM A STAGNANT MARKET

By selling options that provide you with money in exchange for taking on the exposure to a stock’s future price action both above and below strike prices you select, you make money if the stock stays in a trading range between those prices.

CASE STUDY: MICROSOFT

It’s Oct. 28, 2005. Microsoft’s first-quarter earnings just beat analysts’ estimates, and investors are looking forward to the launch of the Xbox 360. But guidance for the next quarter fell far short of expectations, and the Justice Department is still rumbling about antitrust compliance.

With positive and negative crosswinds battering Microsoft, you decide that the stock is primed to go . . . nowhere over the next six months. You could buy the stock and watch it stagnate, earning nothing, or you could use options to make some bucks. But how can you make money from a stock going nowhere fast?

Although most people think of options as a tool to speculate on big price moves, options can also help you profit from a lack of price movement. The key is to sell options rather than just buy them as most folks do. When you buy options, you win only if the stock moves up (for a call) or down (for a put). You lose, albeit not much, in two out of the three price movement scenarios — if the stock is flat or moves in the opposite direction. But when you’re selling options, it’s the reverse: You win two ways out of three, but you could lose much more if the one bad way occurs.

Option Solution: Iron Condor (sell a put spread below the stock price and sell a call spread above the stock price).

Wouldn’t it be great if you could combine the limited risk of buying options with the two-out-of-three winning percentage of selling options? You can, with an option spread. Spreads involve buying one option and selling another of the same variety (calls or puts) at the same time.

The profit potential comes from the options you sell, while the options you buy — which are cheaper because they’re further out of the money — act as insurance in case your range-bound prediction turns out to be wrong. The goal is for the options you sell to expire worthless, out of the money. In that case, the options you buy as insurance also expire worthless, and you get to keep the credit you initially received for selling the spread.

For an iron condor, you select four strike prices — two put strikes for a put spread and two call strikes for a call spread. Given your view that the stock is going nowhere for six months, you choose the April 2006 expiration. With the stock trading at $25.20, you choose near-at-the-money strikes: Sell the $25 put for $1.25, buy the $22.50 put for $0.45; sell the $27.50 call for $0.50, and buy the $30 call for $0.20. You receive a total credit of $1.10 per share for the condor. You’re hoping for all four options to expire worthless, which will happen if the stock reaches expiration between the $27.50 strike of the call you sold and the $25 strike of the put you sold. (The trade is called a condor because the bird’s wide wingspan reminds traders of the width of a four-strike trade; iron alloy is composed of different metals, like this trade’s different options, puts and calls.)

Here’s how the trade could work out:

You make your maximum profit of $1.10 per share if, at expiration, the stock is trading between $25 (the short put strike) and $27.50 (the short call strike), when all four options expire worthless. If the stock makes a big move and ends up beyond either of these endpoints, you would lose $1.40 per share.

How it Played Out: At expiration in April 2006, Microsoft closed at $27.15. Maximum profit achieved!

<table>
<thead>
<tr>
<th>Microsoft Iron Condor</th>
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</thead>
<tbody>
<tr>
<td>Stock Price at April 2006 Expiration</td>
</tr>
<tr>
<td>$30.00</td>
</tr>
<tr>
<td>$29.25</td>
</tr>
<tr>
<td>$28.60</td>
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<tr>
<td>$27.50</td>
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<tr>
<td>$26.00</td>
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<tr>
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<tr>
<td>$23.90</td>
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<tr>
<td>$22.75</td>
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<tr>
<td>$22.50</td>
</tr>
</tbody>
</table>
STRATEGY NO. 7:
PROFIT FROM A VOLATILE MARKET

Buying both call and put options can provide you with profitable exposure to a stock's future price action above and below strike prices you select. You make money either if the stock price makes a large move away from its current price or if the market's expectations for a large move increase and add value to the options.

CASE STUDY: AMGEN

It’s Oct. 2, 2006. Amgen (NasdaqGS: AMGN) will report earnings in a few weeks, and you think the stock is poised for a big move, either in anticipation of the news or in reaction to the news itself — but you're not sure whether that move will be positive or negative.

Buying the stock is too risky, because the news could be bad. Shorting the stock is also too risky, because the news could be good. Options can help.

Option Solution: Buy a Straddle (buy a call and a put at the same strike price). If you think a stock is about to move explosively but don’t know in which direction, then straddling the fence — playing both sides — is for you. You can buy a call and put simultaneously at the same strike price.

If the stock goes up, the call gains value (the put loses value), and if the stock goes down, the put gains value (the call loses value). Here’s the kicker — options gain value faster than they lose value, so the net effect of a stock price move is an increase in the value of a straddle. But straddles suffer from one powerful negative attribute: time decay.

Whenever you buy options, you’re subject to time decay, and since a straddle involves being long two options at the same time, you’re doubly vulnerable. That time value doesn’t decay at a consistent rate but accelerates in the last two months before expiration.

That means you shouldn’t hold a straddle all the way until expiration but plan to exit six to eight weeks before expiration. Ultimately, only enter a straddle if two conditions exist: (1) the stock’s options are priced relatively cheaply, and (2) a near-term catalyst promises to make the stock price move soon.

STEP 1: CHEAP OPTIONS

When option traders speak of an option being “expensive” or “cheap,” they’re referring to the option’s implied volatility, not to the perceived fair value of the underlying stock. Implied volatility is the degree to which the market expects the stock to move at some point over the upcoming 12 months. The more the stock price is expected to move above or below its fair value, the higher the implied volatility of its options and thus the greater the time value — and the more expensive the options will be.

The simplest way to gauge whether an option is cheap is to look for an implied volatility close to a 52-week low — and fortunately, the all-about-options website www.ivolatility.com does the work for you. In our example, Amgen options have an implied volatility of 20.25%, very near their 52-week low of 19.74%.

STEP 2: NEAR-TERM CATALYST

The best time to start a straddle position is three to five weeks before the event you expect to move the stock. This will allow you to get in at a cheap implied volatility before the market starts to anticipate the event. In the Amgen example, the earnings report is three weeks away on Oct. 23, so our straddle looks good to go.

With Amgen trading at $70.45, you decide to use the closest strike price, $70. For the expiration, you select January, which is about two months after the catalyst of the October earnings release. Options’ time decay accelerates in the last two months before expiration, so by choosing the January expiration, you ensure this straddle trade is low-risk. You’ll close out the trade Oct. 23 or 24, which is right before the options start to suffer serious time decay.

You could pick an expiration that was even further out than January, but those options would be more expensive. That would reduce your potential profit but wouldn’t provide much more protection from time decay. Picking the expiration month two months after the expected explosive event is the sweet spot for a straddle trade.

You buy one Amgen January $70 call for $4.50 and one January $70 put for $1.95. Buying them both costs $6.45. If you were to wait until expiration, this trade would only be profitable if the stock were to close above $76.45 ($70+$6.45) or below $63.55 ($70-$6.45), a 9.2% move.

A volatile biotech could certainly move more than 9%, but it’s no sure thing. That’s why a risk-averse straddle trader almost never holds a position all the way until expiration. By exiting two months before expiration, you can avoid the time decay, take advantage of the options’ rising time value and profit from a much smaller move in the stock. And if the stock did move explosively, all the better!

If the worst case happens and by Oct. 24 Amgen’s stock doesn’t move at all from its price of $70.45, the straddle’s value will fall to $5.80, which would be a loss of 10%. The potential gain is theoretically unlimited, but if Amgen’s stock price moves up 4% and the implied volatility goes up 5%, as it historically has done around earnings, then you can expect the straddle to be worth about $7.30, which would be a gain of about 13% — so we have a better than 1-to-1 risk-reward ratio for the trade.

The trade is even more favorable if you’ve done your fundamental research and know that the earnings report will contain news likely to cause a volatile reaction. In this case, Amgen had a good chance of jumping after the October earnings report because the FDA had recently approved a new drug that could be worth $1 billion a year. Preliminary sales information would be available in time for the earnings report, and good news could cause the stock to spike, while bad news could cause the stock to plunge.

How it Played Out: Within two weeks, the market began to anticipate Amgen’s earnings, and implied volatility began to rise. On Oct. 13, the stock has risen to $73.22. The $70 call
has increased in value by $1.35 to $5.85, while the $70 put has decreased in value by $0.35 to $1.60 — see how the winning call option gains more than the losing put option gives back? That makes the straddle worth $7.45 ($5.85+$1.60), and you decide to sell it for a 15.5% profit.

That’s right, you don’t have to wait for the earnings report to make money! Often, the mere increased expectation of a stock’s explosive move is enough to cause options’ time value to rise and make the straddle gain value. Straddles’ profit potential may be lower than the other option strategies in this report, but the time decay risks make it important to take profits quickly. A straddle trade succeeds either from an increase in time value or from an explosive move, so it makes you money whether the stock moves up or down.

**GET STARTED TODAY!**

The options strategies outlined here are just the tip of the iceberg. Once you see the incredible flexibility and profit-making potential of the call and put brigade, you may never go back to a stock-only portfolio. The key to sustainable options profits is to manage your risk through position sizing, selling only covered options and buying options with long-term expirations so that time decay doesn’t bite you.

Whether you want to leverage profitability, generate monthly income, diversify your long-only stock portfolio into non-directional exposure or reduce the risk of your stock portfolio, options can do it for you.

### SUMMARY TABLES

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### Stock-Option Equivalents

(assumes all options have the same strike price)

| Long Stock                      | Long Call + Short Put                                 |
| Short Stock                     | Long Put + Short Call                                 |
| Long Call                       | Long Stock + Long Put                                 |
| Long Put                        | Short Stock + Long Call                               |
| Short Call                      | Short Stock + Short Put                               |
| Short Put                       | Long Stock + Short Call                               |

### Greeks

<table>
<thead>
<tr>
<th>Delta</th>
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