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THREE STRATEGIES
THAT COULD PROTECT
YOUR OPEN
POSITIONS NOW

PAGE 16



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Three Things That Keep Traders Awake at Night (and How to Put Them to Bed)

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Cover Photograph by
Fredrik Brodén

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OOPS. WE GOOFED.

On page 23 in the previous issue (Spring 2016), Figure 3 was incorrect. Many apologies to David "Mr. Script" Kier for mucking up his superior explanation of his proprietary "The Simple Cloud" indicator. To see the actual chart intended for the article, please search for "Going Off the Grid (With Your Charts)" at tdameritrade.com/thinkmoney.

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"A smaller loss is better than a bigger loss, and it helps you still feel some of the old affection for the markets even before a massive dose of morning Joe."

Three Things That Keep Traders Awake at Night **Page 16**



Don't Forget Your Helmet

• JUST WHEN YOU THINK you've found your springtime groove, summer will be here before you know it. So before you trade in your keyboard for a fishing pole, be sure to pack your favorite trading books and some back issues of *thinkMoney* for easy reading while you're sleeping among the bears. Although there is no strategy in this magazine that will help you confront the fuzzy, warm-blooded kind, there are plenty of ways to prepare ahead of the next market correction.

First, smart traders tend to focus more on managing risk rather than predicting direction. But regardless of your approach, to err is human. Whether you're betting on up, down, or whether Bey and Jay will last the year, you're going to be right sometimes and wrong at other times. No matter what your trading size, there may be times when you have positions open overnight and stay up all night worried sick about how the market might open the next day. That's never a good thing, but there may be ways to avoid it. "Three Things That Keep Traders Awake at Night" on page 16 suggests some risk-management techniques to consider that might cure trading insomnia.

The better you're able to manage your risks, the more aggressive you can become without breaking the bank. Dynamic collars

are a strategy that many professional traders use—and you can, too. "Happy at the Bottom, Party at the Top" on page 20 might make you think differently about how to build a stock position without depleting your cash, and without regard to a stock's direction.

And speaking of parties, remember those college frat houses and sororities with Greek names on the door? They may have just meant letters then, but for options traders, they have a whole different meaning. The ~~new~~ article "The Myth of Delta Neutral (and Other Greek Tales)" on page 30 demystifies some of the misconceptions options traders



TAKE ACTION:

Ask a question, tell us a joke, or just give us your feedback on *thinkMoney*. Write to us at thinkmoney@tdameritrade.com

have about the greeks and shows you what they really mean.

When it comes to trading, there is no shortage of losers. You can, and will likely be, one of them from time to time. That's got nothing to do with your charming personality. It's just the nature of trading. And in preparing for the inevitable, sometimes your best defense is you.

Happy Trading,
Kevin Lund
Editor-in-Chief, *thinkMoney*

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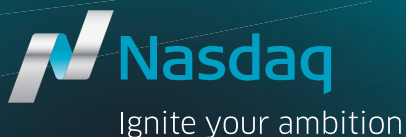
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LITTLE QUIPS FROM YOU TO YOURS TRULY



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Write to us for stress relief. Humor is the best antidote. Send quips to thinkmoney@tdameritrade.com

Best in Show ... (To Our Inbox)

I think somebody should create an ETF based on the roulette wheel. —**Rich**

Can someone tell me what's the best method to know that a trend is over in /ES and/or when the trend is about to start? —**Sam**

Liquidity is like oxygen. You don't notice that you need it until it's not there :) —**Jai**

Trading on Jack D is not a bad setup, as long as you don't start before 10am :) —**Linda**

The comments from Chat Room Pearls, right, are excerpts from chat rooms, emails, and tweets submitted by TD Ameritrade clients, and are their views and may not reflect those of TD Ameritrade. Testimonials may not be representative of the experience of other clients and are no guarantee of future performance or success. TD Ameritrade reserves the right to modify Love Notes for grammar, consistency, and similar purposes.

Chat Room Pearls...

Cocktail party chatter has been known to do more damage than the cocktails!
—FRED

Putting money under your mattress may make it very lumpy and that violates the rule about trading only stuff that lets you sleep at night.
—DENISE

CHAT SWIMMER #1:
If a stock splits, doesn't that mean it goes both ways, causing loss on both sides of an iron condor?

CHAT SWIMMER #2:
I always thought a split meant you doubled your money.

I want to learn! Teach me how to bet on a market crash at a specific date for the highest possible payout.
—PETE

That risk is so high it would be like taking a bath with a toaster.
—ELVIS

Dollar tree had earnings of a dollar—ha
—JIM

Good day to all. Resting since the punch in the gut yesterday. Whoever said to keep size small in this mkt is a god.
—HUBERT

Hi all...Do I need to worry about a red message on my account position screen that says "REGULATION-T CALL"?
—NICK

This market is like a flea on crack...
—PAM

CHAT SWIMMER #1:
Facts and figures presented are believed to be accurate but are not warranted to be so. Nothing presented herein is to be relied on for any speculative or investment purpose.

CHAT SWIMMER #2:
Are you referring to my Match.com profile and photos when you post that disclaimer?

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IN THE MONEY

A HODGEPODGE OF MARKET STUFF YOU SHOULD KNOW



**TRADER
GLOSSARY**
TURN TO
PAGE 36

INDUSTRY SPOTLIGHT • EASY

Wednesday Expirations, Anyone?

BIG IDEA: WHAT'S SMALL, NIMBLE, AND EXPIRES ON WEDNESDAYS? WEEKLYS ON SPX. LET'S PULL UP A CHAIR.

• ON FEBRUARY 23, 2016, the Chicago Board Options Exchange (CBOE) started listing Wednesday-expiring WeeklysSM Options on the S&P 500 (SPX). Nice. Now, options traders have even more toys to play with, more a la carte options ... and more to chew on.

Wednesday-expiring weeklys get listed on Tuesday and expire eight days later. Given that on some days the SPX weeklys represent about 50% of the CBOE's total SPX trading volume, it's no wonder they're starting to add contracts that expire on different days than just Friday. Why Wednesday? Besides adding more breadth to their offerings, the decision aligns with VIX futures and options expirations.

IT'S A STRATEGY THING

So why should you care? It depends on your strategy. With VIX futures and options expiring on Wednesday, there's volatility as positions unwind. With the addition of Wednesday expirations, you can use various spread strategies—depending on price action—that may play nicely with a Wednesday expiration. For instance, consider trading a SPX **calendar spread** using the Wednesday/Friday expirations 10 days apart, then cover it on Tuesday, just before expiration.

And don't forget premiums. Because weeklys are listed on Tuesday, the premium is likely to be higher on that day, which could also depend on implied vol and time decay. By the time Friday rolls around, premiums might be lower, and it's likely you'll see a little pop at the beginning of the next trading week. It's something to keep in mind if you're a premium seller.

You can also hedge important positions or leverage the timing of earnings



COOL INFO: To find information on Weeklys in thinkorswim® go to Trade>All Products>enter underlying symbol in symbol field>expand the option chain. You'll see the Weeklys listed.



releases and announcements—particularly since the Fed makes its rate decisions on Wednesdays. Implied vol naturally comes into play here. When you anticipate pops in implied vol, you may want to think about selecting Wednesday weeklys from the menu.

RISKY BUSINESS

Let's face it, weeklys are short term, which means you're fighting time decay. And yes, shorter term means you can trade more frequently and possibly find more opportunities to realize great trades. But what's an options strategy without risk analysis?

These shorter expirations come with unique challenges—namely **theta**, or time decay. If you're a long trader, with weeklys, you have to hope the daily moves in the underlying exceed the daily time decay. If you're a premium seller, you could have a lot of negative **gamma**, and get wiped out quickly with much smaller moves in the underlying.

Gamma is often highest near expiration. And weeklys are as close to expiration as you can get.

With more choices, you simply have more to trade. Just be mindful of the risks as well as the rewards of such short-term trading. Peruse the entire menu, check in with your appetite, and decide for yourself. —Words by thinkMoney Editors

Because they are short-lived instruments, weekly options positions require close monitoring as they can be subject to significant volatility. Profits can disappear quickly and can even turn into losses with a very small movement of the underlying asset. For more on the risks of options, see page 37, #2

GEAR HEAD ● SEASONED

Trade Where the Action Is

BIG IDEA: HOW DO YOU FIGURE OUT IF THERE IS INTEREST IN THE MARKET? THE MARKET DEPTH GADGET WILL SHOW YOU.

• You're only going to trade something if there's enough liquidity. Makes sense, but how do you figure out if there's enough liquidity? You need to see the bid and ask quotes and their size. You can find this info in the Market Depth gadget available in thinkorswim®. It's seen on the left sidebar and shows the best bid and ask quotes for any symbol from the major exchanges, including spreads. You'll see quotes for each of the legs of the spread as well as quotes for the entire spread. And since all data points are from the actual spread and not the sum of the top of the market, you can find better potential fills when you can see the number of contracts and specific prices.



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AMEX	1.46	0	1.52	0	
BOX	1.46	0	1.53	0	
CBOE	1.45	0	1.52	0	
ISE	1.46	0	1.53	0	
NYSE	1.24	29	1.44	29	
NASDAQ	1.47	0	1.54	0	
C2	1.46	0	1.53	0	
PHLX	1.46	0	1.52	0	
Z	.68	5	1.38	5	

For illustrative purposes only.

How To Do It
From the Trade tab, bring up your option chains and right-click on an option quote, select More Info, and then Market Depth.

1 – See the bid and bid size for any given exchange.

2 – See the ask and ask size for the same exchanges.

3 – If you selected a spread, you'll see the same details for each leg of the spread.



Ask the Suit

BIG IDEA: A LITTLE Q&A WITH **NICOLE SHERROD**, MANAGING DIRECTOR, TRADER GROUP AT TD AMERITRADE



• **Recently you launched new international indexes. Any plans to expand the thinkorswim® data set even more?**

How about if we expand our offering by an additional 385,000 data points? Would that make you guys happy? Well, we already did. We've integrated the entire Federal Reserve Economic Database into thinkorswim. This database allows you to access historical economic data from more than 80 different domestic and international sources. If there is an economic data point that you are curious about, the odds are that you can now access it in thinkorswim. Production and finance activity? Got it. Money, banking, and finance data? It's in there. Employment and labor market info? It's all yours! And the best

"This is another powerful data point to help solidify whether or not you want to move forward with the trade."

—NICOLE "THE SUIT" SHERROD
@TDANSHERROD

part is that you can analyze all the historical trends in the thinkorswim charts that you already know and love. So where can you find it? Look for the red icon on the Analyze tab that resembles the U.S. Capitol building. This is going to add a more academic layer to your thinkorswim experience.

You guys recently added social data to the TD Ameritrade website. Any plans to also bring that capability to thinkorswim?

Actually, we just did! And I could not be more excited about this new offering. To me, Twitter is perhaps the largest database in the universe of consumers who are expressing their opinion of the products that roll up to publicly traded companies. How amazing would it be for you to add a powerful new layer to your pre-trade analytical process where you could look not only at the fundamentals and technicals of a company, but also at the volume and sentiment of consumers talking about their products.

Think of it this way. You've analyzed a stock fully. You think that the fundamentals look great and the valuation looks like it's trading at a discount. You also feel really good about the technicals, which suggest that the time is right for entry. Then you look at the Social Sentiment and you see that over the past two months there was a 700% increase in the volume of people tweeting about the products that the company makes. The data also shows a major increase in the sentiment of those tweets in the same time frame. More people are talking about their products and more favorably than ever before. This is another powerful data point to help solidify if you want to move forward with a trade. You can access Social Sentiment by applying it as a lower indicator on thinkorswim charts. This is sure to be your new favorite thinkorswim feature.

Please note: Anyone can post to social media, and you often cannot establish the identity, knowledge level, investing expertise, or even the intent of the person posting. Posts are not subject to any fact-checking. Opinions presented may be completely without reasonable basis, and claims may be unsubstantiated. TD Ameritrade does NOT make any recommendation to buy, sell, or hold any security via a social media post. And we encourage you to thoroughly research any "recommendation" you might view in a third-party post.

TOYS FOR TRADERS

FROM THINKORSWIM®

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ASK THE TRADER GUY

Q: Hey, Trader! I noticed that implied vol can be higher when a stock's earnings are about to be announced. Is it smart to sell those options to collect more premium?

A: You're right that higher implied vol can mean higher options prices, all else being equal. And implied vol can often reach high levels ahead of an earnings announcement. Although it might be tempting to sell a strangle to take advantage of higher options prices (for example), remember that high implied vol reflects the potential for large changes in the stock price (up or down), which could cause big losses in a short option strategy. Proceed with caution.

Q: Hey, Trader! My grandparents gave me some cash to go to Europe after graduation. Should I use the money to trade instead?

A: Europe's a great place. It's been around a couple thousand years, so it isn't going anywhere. Your grandparents may be testing you: Is this kid smart enough to invest and potentially turn the money into a bigger pile of money, or will you blow the money on gelato and French cigarettes? Make your grandparents proud, and book your tickets 30 years from now.

Tom Preston is not a representative of TD Ameritrade, Inc. The material, views and opinions expressed in this article are solely those of the author and may not be reflective of those held by TD Ameritrade, Inc.



FIGURE 1: What's IV percentile got to do with it? A high IV percentile could mean opportunities in short option strategies. A low IV percentile could mean there might be opportunities in long option strategies.

For illustrative purposes only.

CAPICHE • EASY

When High Tide Is the New Low Tide

BIG IDEA: WHICH OPTIONS STRATEGY DO YOU CHOOSE? LOOK TO IV PERCENTILES FOR CLUES.

• THIS FALL, MADISON AVENUE will tell us that some color—red? blue? yellow?—is the new black. And whatever you wear in that color, the experts promise, you'll look younger, or thinner, or get invited to more A-list parties. In reality, you'll likely be home on Friday night as usual, but it's still a signal there's been a fashion change.

In the trading world, we also have signals. They say that when the VIX is high, it's time to buy. When the VIX is low, it's time to go. The idea is that the S&P 500 and the CBOE Volatility Index (VIX) are inversely related: When the S&P 500 is rallying, the VIX tends to be low. And when the S&P 500 is dropping, the VIX tends to be high. So, high VIX may be a time to buy the S&P 500. Low VIX may mean a time to short the S&P 500.

Like all things Wall Street, this isn't absolute, but it's another indicator to keep in your pocket. So without Madison Avenue to clue us in, how can we tell if the VIX has switched colors?

WHERE'S VOL NOW?

The IV percentile is a metric in the thinkorswim® trading platform that compares the current implied volatility (IV) to its 52-week high and low values. Those range from near-zero, when the current IV is at its 52-week low, to near 100%, when the current IV is at its 52-week high. (See Figure 1.)



FIND THOSE STATS

To find IV percentile and other option statistics, go to the Trade page on the thinkorswim® platform by TD Ameritrade and select All Products.

options. So, it's an overall implied vol number.

A near 100% IV percentile doesn't mean that the current IV can't go higher, nor does a near-zero percent IV percentile mean the current

IV can't go lower. But if you believe that implied vol is mean reverting, you may predict that the higher the IV percentile, the more likely IV is to drop. And the lower the IV percentile, the more likely IV is to rise.

A value is "mean reverting" if it oscillates around some average

value. For volatility, mean reversion describes when IV goes up, then comes back down to an average. When it goes down, it comes back up to an average—and so on. But IV is only an estimate.

Take the VIX. It might oscillate up and down around 16% like it did for much of 2015. Then when uncertainty builds in the market, the VIX moves higher. And it might stay higher, oscillating around a new, higher mean—as it did when it hit 20% in the early weeks of 2016. Here's the catch: there's no way to know when IV is starting to revert

to a higher or lower mean. In other words, IV is mean reverting...until it isn't.

With that in mind, examine the IV percentile to determine which options strategy to apply. Remember, all things being equal, the higher an option's implied vol, the higher its extrinsic value. A high IV percentile could indicate that option premiums are relatively high, and there might be opportunities to use short option strategies like **iron condors** or **short verticals**. A low IV percentile could indicate that option premiums are relatively low, and there might be opportunities to use long option strategies like **calendar spreads** or **long verticals**. —Words by THOMAS PRESTON



TRADER JARGON
TURN TO PAGE 36



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THREE THINGS THAT KEEP TRADERS AWAKE AT NIGHT*

BIG IDEA:

IT'S ONE THING TO HAVE CIRCLES UNDER YOUR EYES BECAUSE YOU WERE OUT ALL NIGHT. IT'S ANOTHER TO LIE AWAKE AT 3 A.M. WORRIED ABOUT A TRADE. THESE TIPS COULD HELP YOU SLEEP MORE SOUNDLY—ASSUMING YOU KEEP THE PARTYING UNDER CONTROL.

WORDS BY **MARK AMBROSE**

PHOTOGRAPHS BY FREDRIK BRODÉN

*AND HOW TO



PUT THEM TO BED

● **EASY / TAKE AWAY:** Strategies designed to reduce your losses, reduce your effective cost, and reduce the possibility of assignment.

MARKETS DON'T SLEEP. But you do. And like all traders on earth, you go to sleep innocently, hoping with every good intention that once your head hits the pillow, the world economy will behave itself until you're back at your trading screens. It's not too much to ask, but the markets are rarely so accommodating. Consider three of the biggest things causing sleepless nights for traders.

1

BIG OVERNIGHT MOVES

While you sleep, suppose a German banker makes a big media splash with a rate announcement. Or a Chinese bureaucrat decides to get creative with his country's economy. Six degrees of separation (at most) means we're all connected, and you might wake up to a wild and crazy market—with a trade on that might not line up with all the excitement.

Even professional market watchers can't predict what can happen overnight to the U.S. market. Chances are, if you've been at

this trading thing for a while, you don't really fear market events or news. But you might be worried about the size of the loss that could occur if overnight action causes the U.S. market to move against you. The bigger the potential

loss, the less of a morning person you become.

One solution? Make the potential loss smaller. For example, maybe you're long stock. If a big move lower on the open might create a loss that looks too big for your account, don't sit there worrying. Get your hedge on.

For long stock, buying a put is a classic hedge. The long put is a type of protection against a drop in the price of the underlying. And somewhat like an insurance policy, the more protection you want, the more you'll pay. The loss on long stock can be offset; when the price drops, the value of the long put increases. But the further **out-of-the-money** (OTM) the put is, the slower the put

rises when your stock drops. The lower the put's strike price, the greater the potential loss on the long stock before it increases in value. The higher the put's strike price, the smaller the potential loss on the stock before it increases in value.

All things being equal, the put at the higher strike has a higher purchase price (cost) than the put at the lower strike. Calculate how much protection you want, and how much you want to pay.

Or maybe instead of long stock, you have a **naked short put**. Even a cash-secured short put can take a big loss if the underlying stock drops sharply. If you buy a further OTM put in the same expiration as your short put, you're creating a defined-risk short put vertical spread. No matter how far the stock drops—even to zero—the loss on the short put vertical is limited to the difference between the strike prices.



2

MARRIED TO A LOSER

Sometimes you love a stock too much, even as the price is falling. A small loss on long stock can turn into a bigger loss. And a bigger loss can turn into something that messes with your happy breakfast smile. No strategy guarantees that the loss on a trade can be erased. But you can feel more in control if you act. The max possible loss on a long stock position is the price you pay for it. So, the less you pay for a given stock position (its cost), the less its max possible loss.

How to Sleep with a Loser: One way to reduce the effective cost of long stock is to sell covered calls against it. For example, if you pay \$50 for 100 shares of stock, that's \$5,000 you're spending (before commissions). If you sell a 52-strike call for a 0.30 credit, that's \$30 of cash that goes into your account (before

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commissions), which brings your net cost to \$4,970. If the calls expire worthless, you still have 100 shares of stock and can sell another call. Repeating this process can steadily reduce the effective cost and risk of the long stock. Keep in mind that doing this consistently may be difficult to reproduce.

But what if the stock has already dropped from \$50 to \$40? True, selling a call against it caps its upside potential if the stock rallies back. It's also true that the stock might continue to drop, or maybe just sit there at the lower price. In those cases, selling a call to

reduce the effective cost can still make sense. And if the stock price does rally above the strike of the short call, you can either roll the call to a higher strike, or let the long stock be assigned and take a somewhat smaller loss. A smaller loss is better than a bigger loss, and it helps you still feel some of the old affection for the markets even before a massive dose of morning Joe.

B ASSIGNMENT IS NEAR

The dread of being assigned on a short option is always there (See sidebar on left). For example, if you're assigned on a short put, the resulting long stock position may have a margin requirement that's too big for your account. If you're assigned on a short call on a dividend-paying stock, you might have to pay that dividend. But you might be able to anticipate if and when options might be assigned if you know the economics behind it all.

Crunch Your Numbers: To figure out the likelihood that a short option might be assigned, put yourself in the shoes of a trader who's long that option. For instance, if you're long a call, you have defined risk, and you can only lose as much as you paid for the call. If the call is on a stock that pays dividends, you're not eligible to receive that dividend unless you own shares of the stock. Furthermore, the cost of the call is often less than the cost of 100 shares of the underlying stock. The smaller cash outlay for the long call means you can still earn interest on more cash in your account.

If you're long a call, then you could exercise it and get long stock. This can mean three things:

1. You can receive the dividend on that stock if you own the stock before ex-dividend date.
2. You'll pay, or lose, interest on the amount of cash it took to buy the stock at the strike price.
3. You'll enter a stock position that has a larger potential loss than the long call if the stock price goes to zero.

Is the dividend enough to cover the interest lost or paid, and the cost of buying the put at the same strike as your call? But why are

we looking at the put? Well, if you buy that put, it hedges your long stock, and replicates the risk/reward profile of the long call you had before you exercised it. Thus, the decision to exercise depends most heavily on the dividend.

Now, if you're short a call option that's **in-the-money** (ITM) and are concerned about assignment, consider this course of action:

1. Calculate the interest component by multiplying the short call's strike price by the three-month T-bill rate, and then by the number of days to expiration, divided by 360.
2. Add that interest rate component to the price of the OTM option at the same strike as the short call.
3. If the ex-dividend date is between the present and the call's expiration, and the dividend is larger than the interest plus the price of the OTM option, it can mean assignment is more likely. If that's the case, you may want to close the short call before the stock's ex-dividend date, or roll it to a further expiration, where assignment is less likely.

Finally, take a look at the Risk Profile of your positions on the Analyze tab of the TD Ameritrade thinkorswim® platform. This



HOW TO SEE YOUR RISK

Let the Risk Profile tool do the math for you and draw the risk curves of potential profit and loss possibilities. For more, search for "risk profile" at tltc.thinkorswim.com.

will show you the theoretical profit and loss of a trade across a range of stock prices, and can help take the guesswork out of risk management. You can even see the beta-weighted risk profile for your portfolio on the Analyze page.

Use your tools, protect your trades, fear not the dark night, and join the ranks of happy morning people.

Mark Ambrose is not a representative of TD Ameritrade, Inc. The material, views and opinions expressed in this article are solely those of the author and may not be reflective of those held by TD Ameritrade, Inc. For more information on the general risks of trading and options, see page 37, #1-2.

DEMYSTIFYING ASSIGNMENT: A QUICK REFRESHER

1. What does it mean to get assigned?

- The trader who owns a long option can exercise it.
- A short option may be assigned when the trader who's long that option exercises it.
- A trader who's long the option controls the exercise/assignment process, except at expiration, when options that are in-the-money (ITM) by \$0.01 or more are automatically exercised if long. If you're short an option that's ITM you may or may not be assigned.
- When short calls are assigned, they turn into short stock. When short puts are assigned, they turn into long stock.

2. What impacts assignment?

- Margin requirements: What if it's too much for you to handle?
- Interest: Extra cash in your account can earn interest.
- Dividends: You may have to pay dividends if you get assigned on a dividend-paying stock.

3. How do American options compare to European options?

- Early exercise only happens in **American-style options**; assignment usually happens for ITM calls.
- European-style options are not subject to early exercise. This includes cash-settled indexes like SPX, NDX, and RUT.

HAPPY AT THE BOTTOM,

BIG IDEA: DO COLLARS MAKE YOU THINK STARCHED, STIFF, AND ONLY FOR THOSE WITH DEEP POCKETS? THINK AGAIN. OPTIONS COLLARS CAN NOT ONLY OFFER AN AFFORDABLE STOCK HEDGE WITH REASONABLE UPSIDE, BUT CAN ALSO BE DYNAMIC AND HELP YOU BUILD A LARGER STOCK POSITION, WITHOUT BREAKING THE BANK.

WORDS BY **THOMAS PRESTON**
PHOTOGRAPH BY FREDRIK BRODÉN

PARTY AT THE TOP



● SEASONED / **TAKE AWAY:** *Trade like the bigwigs but with much less money.*

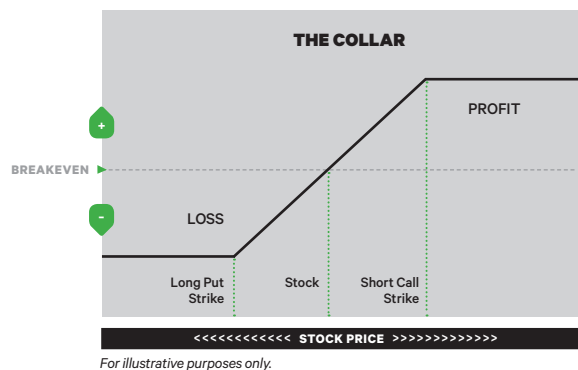


FIGURE 1: Dynamic Collar. When you put on a collar, you're buying long stock, shorting an out-of-the-money call, and buying an out-of-the-money put. Costs can add up. For illustrative purposes only.



HAVE YOU ALWAYS ASSUMED you don't have the capital to trade collars? Let's check that assumption. A collar is an options strategy often used by stock investors, big and small, but the way they implement this strategy can be quite different.

A collar is composed of long stock, a short **out-of-the-money** (OTM) call, and a long OTM put, with the call and put in the same expiration (see Figure 1). The collar's long put acts as a hedge for the long stock, and the short call helps to finance the long put. The short call also caps the potential profit of the long stock. The collar's max loss occurs if the stock price is below the strike price of

the long put at expiration. The max profit occurs if the stock price is above the strike price of the short call at expiration.

Traditionally, you might place a collar over your long stock, and let it go to expiration without adjusting it. But the nature of collars gives them flexibility, not only when putting them on, but also after time passes and the stock price moves. In fact, larger investment managers use this flexibility to build a bigger stock position by using a strategy known as the "dynamic collar."

DELTA IS MORE THAN CHANGE



Technically, the collar is a bullish strategy that has positive **deltas**—meaning it benefits from the long stock moving higher. But where do those deltas come from?

The long stock has 100 positive deltas for each 100 shares. Both the long put and short calls have negative deltas, but how much depends on their strikes. The further OTM the long put or short call, the fewer negative deltas they have, and so the more positive deltas the collar has. If the long

put and short calls are closer to the current stock price, they have larger negative deltas, and offset more of the long stock's positive deltas.

Let's say the stock price is \$50, the 52-strike calls have a 0.40 delta, and the 48-strike puts have a -0.40 delta. A collar with those calls and puts has +20 deltas. Why?

*One hundred shares of stock = +100 deltas
The short 52 calls = -40 deltas
The long 48 puts = -40 deltas.*

$$100 + -40 + -40 = +20$$

Now, suppose the 55-strike calls have a 0.20 delta, and the 45-strike puts have a 0.25 delta. A collar with those calls and puts would have +55 deltas (-20 + -25 + 100). That's why choosing the strikes for the calls and puts determines how bullish you want the strategy to be. But it also means the delta of the collared stock position can change if the stock price moves down toward the long put strike, or up toward the short call strike.

In the collar example with the 48 put and 52 call, if the stock moves from \$50 down to \$48, let's assume the 48 put now has a -0.50 delta and the 52 call now has a 0.15 delta. That would take the delta of the collar from +20 to +15.

Now, let's say the stock moves from \$50 to \$54. Let's further assume the 48 put has a -0.10 delta and the 52 call has an 0.80 delta. That would take the delta of the collar from +20 to +10.

These numbers are hypothetical, but they illustrate that when the stock price nears ei-

ther strike, or moves beyond them, the delta of the collar becomes less positive. When the stock price is between the strikes, the delta of the collar becomes more positive. It's that changing delta that can make the collar "dynamic."

THINK COLLARS, THINK FLEXIBLE

The dynamic collar originated with institutional investors and money managers who were looking to establish large positions in a stock over time, but wanted a hedge against market corrections.

Let's start a new hypothetical with, say, buying 1,000 shares of stock, buying 10 out-of-the-money (OTM) puts as a hedge, then selling 10 OTM calls to offset the cost of the puts. If the price of the stock drops, the long puts and short calls should theoretically be profitable because they have negative delta.

Assume you sell the long puts, buy

back the short calls, and use the profit to buy more shares of the stock. Suppose that's enough to buy 100 more shares. That would make the stock position 1,100 shares, so you would now buy 11 new OTM puts and sell 11 new OTM calls. The larger position could create more positive deltas. So, you're getting longer deltas (i.e., buying more stock) after the price drops, but still retaining the hedge.

Now, when the stock price drops, it doesn't mean the whole dynamic collar is profitable.

But that's not the point. Remember, the collar is, after all, a bullish strategy. And you're building a position in the stock based on the dynamic fluctuation in the stock price. The loss on the long stock is usually greater than the profit on the long OTM put and short OTM call. To build your position, the idea is to establish a larger delta position in the stock at the lower price via the dynamic collar.

If the stock rallies, the collar could have an overall profit if the long stock has a higher profit than the losses on the long put and short call. In that case, you could take the profit and move on to the next trade, or "roll" the long put into a higher strike closer to the new stock price, and the short call to a higher strike further from the new stock price. This allows you to capture some profit without exiting the position, and begin a new collar at the higher stock price.

Rolling usually costs money, so this could cut into some of the long stock's profit. But it could help you maintain roughly the same delta as when the collar was established, if you continue to be bullish on the stock.

DEEP POCKETS HELP

The dynamic collar gets more positive deltas in two ways with a lower stock price.

First, the options' deltas and stock combine to give the collar a lower positive delta when the stock price drops closer to the OTM put. Second, you can increase the position size with the options' profit, or available capital. If the stock price keeps dropping, the dynamic collar could be losing less money on bigger positions compared to unprotected stock. That's why the strategy is often employed by money managers with the capital to withstand large losses on long-term investments.

In exchange for the risk of expanding losses, the dynamic collar can be more profitable if the stock price rallies back. Because the strategy often creates more positive deltas as the stock rallies, the strategy could possibly break even, or be profitable, with a smaller rally in the stock price. Be sure to keep careful records as you track all the adjustments to a dynamic collar. Make sure you know the new breakeven stock price for the strategy after all adjustments are in place.

LARGER INVESTMENT MANAGERS USE THE FLEXIBILITY OF COLLARS TO BUILD LARGER STOCK POSITIONS USING "DYNAMIC COLLARS."

MIRROR IMAGES

You might notice that the collar is synthetically equivalent to a long call vertical spread. In other words, the long put plus long stock has the same risk profile as a long call with the same strike as the long put. And because the long put is OTM, that synthetic long call is ITM. Combine the synthetic long ITM call with the short OTM call, and you have a long call vertical. The collar with the long 48 put and short 52 call is synthetically the long 48/52 call vertical. In fact, the collar and the long vertical could have the same max profit and max loss numbers. Also, the collar could have higher commissions than a vertical because the collar is stock plus two options, while the vertical is just two options.

So why don't investment managers just buy call verticals if they're synthetically the same as collars? Simple: voting rights. Owning stock shares gives you a voice in a company's business such as board elections, mergers and acquisitions, and stock splits. Options, on the other hand, don't confer voting rights. Because the collar strategy is built around owning shares, the manager preserves voting rights.

The dynamic collar strategy can also rack up commissions because of increased trade frequency and increased position size.



HOW TO FIND STOCKS TO COLLAR

The Option Hacker scan finds stocks as well as calls and puts. The options will be OTM expiring between 10 and 60 days, have more than 200 contracts in open interest, and a bid greater than \$0.10. The stocks will be in the S&P 100 and have an average daily volume greater than 1MM. All of these criteria can be adjusted to suit your needs. Find the scan at <http://tos.mx/oorZUu>

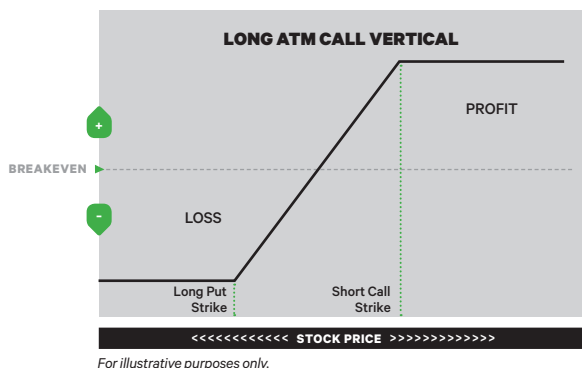


FIGURE 2: Dynamic Twin. The risk profile of the call vertical spread above is nearly identical to the collar, and much less capital intensive. For illustrative purposes only.

If you employ the strategy, make sure the potential profits are large enough to cover commissions.

ARE DYNAMIC COLLARS FOR YOU?

What if you don't buy 1,000 shares of stock? Maybe 100 shares are more appropriate for your account. Do dynamic collars still make sense?

In a scenario where the stock price drops and the profit from a long put and short call is used to buy more shares, the profit might not be enough to buy 100 shares. Although it's possible to trade odd lots of stock, there could be a mismatch between the options' contract size and the number of shares.

For example, if the collar profits composed of 100 stock shares, long one put, and short one call are enough to buy 10 shares of stock, the position will have 110 shares. But each stock option has a contract size of 100 shares. There aren't standard equity options with a contract size of 110 shares. One long put and one short call hedge only 100 shares. But two long puts and two short calls might be too much of a hedge.

IF THE STOCK RALLIES, THE COLLAR COULD HAVE AN OVERALL PROFIT IF THE LONG STOCK HAS A HIGHER PROFIT THAN THE LOSSES ON THE LONG PUT AND SHORT CALL.

SOMETIMES FAKE IS MORE

If the collar is too rich of an investment for your capital, you might be better off with the collar's synthetic equivalent, the long call vertical spread mentioned on page 23 (Figure 2, above). However, in the absence of long stock, the way to make it dynamic is with deltas. How many positive deltas does the long call vertical have, and how many deltas do you want when the stock price drops?

Using our 48/52 collar example with the stock at \$50, the synthetically equivalent call vertical would simply be long one 48 call and short one 52 call, with a delta of +20. No stock and no put here.

Now, suppose the stock price drops to \$48, and the 48/52 call vertical has lost \$40. Our collar would also lose the same \$40, but

that would be made up of a \$200 loss on the stock and a \$160 profit on the long 48 put and short 52 call. Once the collar is closed, you could use the \$160 to buy three and one-third shares of stock at \$48 (not subtracting transaction costs). But instead of buying three shares, the long call vertical could increase its deltas by a little over 3.3%, which is the equivalent of adding three and one-third shares to a 100-share position.

Further, if the delta of the 48/52 call vertical is +35 when the stock is \$48, making it a "dynamic vertical" could increase the delta by 3.3% to +36.2. You might do that by rolling the short 52 call up to the 53 strike, or even roll the long 48 call to a further expiration depending on those options' deltas.

That said, adjusting the position for 0.01 deltas is tough, and you may want to wait for a larger theoretical profit before you adjust. And like the dynamic collar, trading long verticals in this way can result in high commission charges.

You could also tweak the vertical strike to make it even more dynamic than the collar. Selling an OTM call in a closer expiration against an ITM call in a further expiration is still a hedged position. But the short front-month call theoretically decays faster than a further expiration call, all things being equal.

And that's how some pros build a bigger position without spending extra capital using dynamic collars. Though the strategy requires a fundamental grasp of delta that may seem complex at first, it's worth taking a close look at a strategy the pros have been running with for years.

Tom Preston is not a representative of TD Ameritrade, Inc. The material, views and opinions expressed in this article are solely those of the author and may not be reflective of those held by TD Ameritrade, Inc. For more information on the general risks of trading and options, see page 37, #1-2.



COOL TOOLS: For more on trading strategies using verticals, go to the thinkorswim Learning Center at tlc.thinkorswim.com.



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VOLATILITY RULES,

NOT SIZE

BIG IDEA: DON'T BE FOOLED BY MONSTER-SIZE STOCKS. CHEAP STOCKS CAN BE JUST AS SCARY. IT'S NOT PRICE, BUT VOLATILITY THAT COUNTS. WORDS BY **KEVIN LUND**

PHOTO ILLUSTRATION BY MAX BRODÉN

● SEASONED / **TAKE AWAY:** *Why trading in high-priced stocks may be no riskier than their low-priced brethren.*



OF

all the cool things options give us, perhaps none is more useful than implied volatility. Aside from being used to calculate options prices and deltas, we also use implied “vol” to gauge how much a stock might move in the future. Best of all, there’s a simple vol calculation that can help us estimate a stock’s expected range in a single day.

With that info, we can start to see that big, scary, expensive stocks may not be that big and scary after all. It turns out, certain high-dollar stocks are often nothing more than teddy bears that actually move less (relatively speaking) than other stocks trading at a fraction of their price. In other words, monster stocks from big companies don’t necessarily always equal more risk. And the key to understanding this is implied vol.

Here’s a closer look. Take the implied vol of a stock’s options (you can use the vol of the **at-the-money** [ATM] 30-day options), multiply that by the stock price, then divide by 16 (which is the square root of 256—the number of trading days in a year). For example, if FAHN is trading at \$530 and the **implied volatility** is 29%, the stock can be expected to have a daily range of about \$9.60, because $.29 \times 530 \div 16 = 9.60$. So FAHN could move up or down by that amount, and any trading within that range would be expected. (Just bear in mind that the stock could also move outside the standard vol range, too, as nothing is guaranteed.)

Going further, if you take two stocks with the same vol, the expected dollar moves would be the same percentage of their prices. This helps you compare stocks with widely different prices on more of an “apples-to-apples” basis. And this means you can allocate your cash accordingly to better spread the risk. Here’s how.

FEAR NOT THE PRICE TAGS

If a \$500 stock and a \$50 stock each have the same volatility, you’d equate the risk in the \$500 stock with the risk in the \$50 stock by trading the \$500 stock at one-tenth the size of the \$50 stock. Simple enough.

Let’s say that Gavorin.com’s stock GVRC is trading for about \$700 with an option implied volatility of about 35%. Another stock, Phystil.com (PHYL), is trading for approximately one-tenth of Gavorin’s price at \$71, and it also has options with an implied vol of about 35%.

Using the formula, you can see that GVRC’s daily price range is about \$15.31. PHYL’s expected range is about \$1.55—or about one-tenth the range of GVRC. Is GVRC really any more volatile than PHYL? No. They’re both expected to move by the same percentage.

So, this information might help you more accurately spread your risk because you won’t automatically avoid the GVRCs of the world while unwittingly adding too much risk with lower-dollar stocks that only seem “safer,” but may actually have larger expected moves.

CALCULATING OPTIONS RISK

Time for another example. Let’s start with a simple long call where the risk is equal to the purchase price. The GVRC 700 call costs \$35.80. In a perfect world, the PHYL 70 call with the same-month expiration would cost \$3.58, but at these prices, it’s going for \$3.85. Although the volatility of each isn’t exactly the same, it’s pretty close. So you’ll risk about the same buying 10 PHYL calls versus buying one GVRC call. If you’re comfortable


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AT THE END OF
THE DAY, IT’S NOT
NECESSARILY
STOCK PRICE THAT
DICTATES RISK, BUT
THE VOLATILITY.

		GVRC	PHYL
	Stock price	\$700	\$71
	Option strike (approximately 8.5% OTM)	640	65
	Option price	\$14.00	\$1.40
MARGIN REQUIREMENT CALCULATION	20% of stock price	\$140	\$14.20
	Out-of-the-money amount	\$60	\$6
	100% of option value	\$14	\$1.40
	TOTAL MARGIN REQUIREMENT ¹	\$9,400	\$960

FIGURE 1: Calculating Margin Requirements. Even though the margin requirement (multiplied by 100 for each contract) for PHYL is less than that of GVRC, it doesn't mean it's less risky. The risk for both is at about the same percentage of the stock price.

For illustrative purposes only.

buying the PHYL calls, then you may be comfortable with the GVRC trade as well, at least from a risk standpoint.

Let's apply the same logic to a different trade, this time using a short out-of-the-money (OTM) put. We'll use TD Ameritrade margin requirements for this example—20% of the stock value, less the OTM amount, plus 100% of the option's current market value.

Keep in mind that options don't match exactly to the penny, but they can be close. And with PHYL at \$71, the 65-strike put is 8.5% OTM. With GVRC, the 640-strike put is roughly the same percentage OTM. Now, take a look at the option pricing and the margin requirement for both trades in Figure 1.

The margin requirement for the GVRC put, on a per-share basis, comes to \$94. Multiply that by 100 for each option contract, and the margin requirement for one short put option comes to \$9,400. The margin requirement for the PHYL put comes to \$96, or \$960 per option. Again, this highlights how GVRC isn't necessarily any more "risky" than PHYL, nor is PHYL necessarily less risky than GVRC. The risk for either is about 13.5% of the stock's price. Trading 10 PHYL puts is roughly the same amount of risk as trading one GVRC put.

STILL NOT CONVINCED?

Let's slice this up one more way to show that dollar value doesn't always describe a stock's risk as much as its vol does. Instead of looking at a short put and dealing with all the

margin issues, let's look at something similar, and perhaps easier to understand—a **short put vertical spread**.

Here, there's no margin required, and you know your risk up front. Potentially the full value of the spread, less your credit, is the amount you could lose. So using this amount as the max risk, let's compare GVRC to PHYL to see how they stack up to each other (Figure 2). Again, you're looking at the PHYL

65–60 put spread, where the long 60 put is approximately 15.5% OTM. In GVRC, a similar spread turns out to be the 640–590 put spread, where the long 590 put is likewise just about 15.5% OTM.

The \$5-wide PHYL spread is also one-tenth the width of the \$50-wide spread in GVRC, just as the PHYL stock is one-tenth the value of GVRC. Notice that the credit of the PHYL spread equates to the GVRC spread but again, at the 1:10 ratio.

The biggest takeaway is that spreads that are similarly distanced OTM are priced at roughly the same percentage of the stock price. And other than the stock price, they're often pretty much the same. So, risk can be equalized by trading the same ratio of spreads as the ratio of the two stock prices. At the end of the day, it's not necessarily stock price that dictates risk, but the volatility.

That's why volatility can be a critical measure when you're looking for innovative ways to spread your risk. Putting all your eggs into low-priced, potentially high-vol stocks might well turn out to be far riskier than trading the gentle giants.

For more information on the general risks of trading and options, see page 37, #1–2.

	SHORT PUT SPREADS	GVRC	PHYL
	Stock price	\$700	\$71
	Short Option strike (approximately 8.5% OTM)	640	65
	Long Option strike (approximately 15.5% OTM)	590	60
	Spread credit	\$8.50	\$0.85
	Spread max risk	\$41.50	\$4.15
	Credit as a percentage of stock price	5.9%	5.9%
	TOTAL RISK PER SPREAD	\$4,150	\$415

FIGURE 2: Looking at the Short Put Vertical Spread. Comparing "apples to apples," you're equalizing your risk by trading the same ratio of spreads as the ratio of the two stock prices. *For illustrative purposes only.*

THE MYTH OF DELTA NEUTRAL...

BIG IDEA: PERHAPS THE REAL “TRAGEDY” IS THAT THE GREEKS OPTION TRADERS USE ARE LOVED BY MANY, BUT UNDERSTOOD BY FEW. LET’S DEMYSTIFY SOME GREEK OPTIONS MYTHS. WORDS BY **THOMAS PRESTON**
PHOTOGRAPHS BY FREDRIK BRODÉN

...AND OTHER GREEK TALES



● SEASONED / **TAKE AWAY:** *Know the false “truths” about option greeks to better manage your trades.*

GREEK JARGON

DELTA

A measure of an option's sensitivity to a \$1 change in the underlying asset.

GAMMA

A measure of what an option's delta is expected to change per \$1 move in the underlying.

VEGA

A measure of an option's sensitivity to a 1% change in implied volatility.

THETA

A measure of an option's sensitivity to time passing one calendar day.

RHO

A measure of an option's sensitivity to a 1% change in interest rates.



passes. The option price is now \$2.50. You can look at how much the stock price and vol changed, and how many days have gone by, and assume so much of the \$1.50 increase was due to delta, so much to vega, so much to theta, and so on. But too often, traders think the greeks—particularly delta—represent how much money they'll make.

For example, if you think a stock price might go up, you might buy an **out-of-the-money** (OTM) call for \$0.80, with a 0.40 positive delta, which means a \$1 increase in the stock price would theoretically increase the call price by \$0.40. Fast-forward, and the stock is now up \$1. Cha-ching!

Not so fast. The option isn't up \$0.40. Maybe it's up only \$0.10 to \$0.90. Not the \$1.20 you were hoping for. Why? Your greeks could shine a light on this.

Suppose at the start of the trade, in addition to a delta of 0.40, your theta was -0.10 and your vega was 0.05. As the stock moved that \$1 (0.40 gain), time passed two days (-0.20 loss) and volatility dropped from 20% to 18% (-0.10 loss). The negative theta whittled your option's premium down -0.20, and long vega that lopped -0.10 when vol dropped. Even though the stock price rose, the impact of the 0.40 gain in delta wasn't enough to offset the -0.30 loss due to negative theta and positive vega.

The truth is, the option price is determined by the market's cumulative buying and selling activity, based on traders' expectations of how much the stock price might change before expiration. The greeks are just descriptive—although valuable—numbers.

Myth:
The greeks are timeless. They never change.

Truth:
The greeks you see now might not be the greeks you see later.

HERCULES, ZEUS, PEGASUS—that about covers your Greek mythology. But have you studied the myths about option greeks, too? Your **delta**, your **gamma**, your **theta**? I'm not saying the ancient Greek stuff isn't important, but the lower-case greek myths can have a bit more impact on your portfolio's well-being than a well-aimed, god-hurled thunderbolt. Let's clear up a few things before they cause you more trouble.

Myth:

Greeks are what make up an option's price.

Truth:

Greeks describe what could happen to an option's price.

Delta, gamma, theta, **vega**, and **rho** don't make up an option's price. Options greeks estimate how an option's price might change with a change in the underlying stock price (delta, gamma), time (theta), volatility (vega), or interest rates (rho). Think of it this way—the option price starts at \$1, and then the stock price changes, volatility rises, and time

Let's say you're bullish on a stock and think vol might drop. A naked short put has positive delta to benefit from a rise in the stock price, and negative vega to benefit from a

drop in vol. You're okay with the risk of a short put, and have enough capital in your account to cover the margin. You're good to go. Right?

Remember that the greeks you see at the time you sell those puts will likely change over time. Changes in time, stock price, and volatility affect all the greeks, which could change the strategy's positive and negative vega.

For example, if the stock price or vol doesn't change, the delta of that short put will drop toward zero as time passes, as will the put's vega. On the other hand, if the stock price drops and vol rises, the delta and vega of the short put will likely rise, too. And if the stock is close to the put's strike near expiration, you now have a big negative gamma to think about. The large negative gamma means your delta could swing from close to 1, to close to zero, with a small change in the stock price. Yikes! And the short vega? That's lower, now, close to expiration, and a vol drop won't benefit the short put as much as when it had higher vega.

The truth is, time, stock price, and volatility are all moving at once, so the greeks are changing, too. The greeks are just a snapshot. Log into your account daily and check the greeks of your portfolio and individual positions. They could be changing faster than you think.

Myth:

Delta neutral is the goal of option trading.

Truth:

Delta neutral is not so important for retail traders.

What delta neutral means can depend on your trading style. To a bank or a hedge fund, delta neutral can mean a fund's overall portfolio has a delta of zero (or close to it). The fund might achieve that by adding negative delta positions if the overall portfolio is positive delta, or positive delta positions if the overall portfolio is short delta. In other words, a fund that wants to be delta neutral takes active steps to get its delta as close to zero as possible in order to avoid losing money if the market makes a large move. The fund might make money on interest rate

arbs, for instance, and not want to take any directional market risk.

However, regular traders don't necessarily use delta neutral that way. For us, "delta neutral" can be a simple way to describe a position designed to make money if the stock or index doesn't move much. Take an **iron condor**, which is made up of a **short call vertical** and a **short put vertical** that are equidistant OTM. The iron condor makes money if the stock stays in between the short strikes through expiration. In fact, you're hoping to make money from positive time decay, and don't need to be too focused on the iron condor's actual delta.

The iron condor may have some positive or negative deltas depending on how close the stock is to the strike of the short call or short put. And maybe the iron condor has a negative 10 delta today, and a positive 5 delta tomorrow. But if you believe the stock price is going to stay in between the short strikes, you don't want to add a new trade to bring the iron condor's delta closer to zero with every change. Doing that can drive up commission costs and eat away at the original goal of the iron condor—positive time decay.



TAKE ACTION

To investigate delta-neutral trading, use the paperMoney application within thinkorswim® platform. You can put on simulated positions without incurring any commission costs or risking real money. Can't beat that to test a strategy.

Myth:

You don't need to pay attention to myths—greek or otherwise.

Truth:

Yes, you do.

So maybe "delta neutral" is less important to us than the actual delta of an individual trade. Positive or negative, delta needs to match your directional outlook for the stock. Delta can indicate a trade that acts more or less like 100 shares of stock as far as profit and loss are concerned. So, a trade with 80 deltas represents significantly different risk than one with 20 deltas. But the difference between a trade with 20 deltas and a trade with 25 deltas? Not so much.

Taking delta one step further, beta-weighting your deltas can reveal information about your portfolio. Beta-weighted delta measures how much your portfolio will theoretically make or lose if an index

moves \$1. Now, 100 shares of FAHN and 100 shares of GVRC may both have 100 deltas. But in practice, FAHN at \$50 is often less likely to change \$1 in price than GVRC at \$600. A \$1 change in FAHN is 2%, but only 0.167% in GVRC. The beta-weighting tool on the thinkorswim® platform by TD Ameritrade converts the deltas of the 100 shares of FAHN and 100 shares of GVRC into deltas in an index like SPX. Beta-weighted to SPX, 100 FAHN shares might have an SPX delta of 10, while 100 shares of GVRC might have an SPX delta of 120. In SPX terms, the 100 GVRC shares represent more delta risk to your portfolio than 100 shares of FAHN.

Does that mean you should close out your GVRC shares or buy more FAHN shares to make their beta-weighted deltas more equal? Not necessarily. But be aware that your portfolio is more sensitive to changes in GVRC than FAHN. And the difference between the beta-weighted delta risk of the 100 shares of FAHN and the 100 shares of GVRC means if you anticipate a market correction and want to reduce your portfolio's delta, you can look at the beta-weighted portfolio of positive 130 SPX deltas and maybe hedge by doing trades in SPX options that have negative deltas, like short call verticals or **long put verticals**.

The truth is, option greeks are important to us options traders. So busting the various myths about them will help you use, and interpret, greeks better. Or you could just forget the whole thing, wear a toga on your morning run, and hope the gods take care of your trades.

Tom Preston is not a representative of TD Ameritrade, Inc. The material, views, and opinions expressed in this article are solely those of the author and may not be reflective of those held by TD Ameritrade, Inc.

For more information on the risks of trading and options, see page 37, #1–2.

The Doctor Is On Call

IF A DATA LINE, PLATFORM, OR BACK-END SYSTEM CATCHES THE SNIFFLES, SARAH ZURCHER NURSES IT BACK TO HEALTH.

Interview by Kira Brecht / Illustration by Joe Morse

• WHILE THE U.S. GOVERNMENT has its war room, TD Ameritrade has command central and Sarah Zurcher. Call her a secret weapon. If an exchange data line goes down at 2:00 a.m., Sarah, a trader product analyst in the Active Trader group, comes to the rescue. She solves problems fast, so your trades go through every time you hit Enter. You'll likely never meet this behind-the-scenes fix-it gal, but you can rest easy knowing she's on the case. She hails from a tiny town in Nebraska, but Sarah's goals include traveling the globe.

1

What's a typical day for you?

I'm always monitoring the platform's internal health. From the servers, to order routing, to quote screens, to script calculators, I help identify and triage potential trouble spots. When something breaks, my team is the one everyone looks to for a reliable fix.

2

This sounds like a round-the-clock kind of job.

Oh yeah, I'm on call 24/7. There are plenty of times when we work overnight or on weekends. A lot of blood, sweat, and

tears go into the platform. We're naturally dedicated to the product and our clients—to make sure everyone has the ideal tools. We want our clients to have the best trading experience possible.

3

How does market volatility impact your team?

With a lot of activity, there's always a lot more trading, and higher volume on the thinkorswim® platform. We've been shoring up the infrastructure so clients don't see order delays, and they have a fully functioning platform to work with.

What's new and hot in features?

We've added foreign stock index data, like the FTSE, DAX, and Hang Seng to our platform. The markets around the world are more interconnected than ever and what happens overnight in the foreign markets can have a big impact in the U.S. markets. Now when news comes out in Europe or China,

clients can see how those markets reacted and process that information to make better trading decisions. You can find it in the watchlist section under "International Indices."

5

What are some trading rules you live by?

I always know how much I'm willing to risk. I set my entry point and my exit. I don't second-guess myself, and I do my best not to deviate from my trading plan or chase a market. If my entry point is hit and I'm in, fantastic. On the other side, when my stop is hit or my limit order to exit fills, I'm out. That way everything is defined.

6

Where's your next stop on the globe?

Southeast Asia. I want to see Bangkok, Thailand, and Cambodia. I have trouble sitting in one place for very long. That's why I love the markets—there's something new every day.



Visiting 10 countries and 40 U.S. states is not enough for this adventurous soul. She wants to see more.

Uncover Hidden Price Levels

USING VOLUME PROFILE TO TAKE A PEEK AT SUPPORT AND RESISTANCE LEVELS.

● PRO / TAKE AWAY: Check which way prices might be heading by looking at high and low volume nodes.



• **SUPPLY AND DEMAND.** That's about all there is to the price of a futures contract—it's price discovery in the purest sense. No earnings calls, no share dilution, and no accounting assumptions. That's what makes futures different from other financial markets.

Such unpolluted technical action can lead to patterns that repeat often and may become actionable. For example, members of the old Chicago Board of Trade (CBOT) observed patterns of price and volume in the 1980s that became a popular model called Market Profile. These observations inspired various studies of how futures volume (or lack of it) at certain price levels reveals whether buyers or sellers are in control of the market, and how this might be used to help estimate the direction of price movement.

The Volume Profile indicator is a similar study that's available on the thinkorswim® platform from TD Ameritrade. There's one major difference: Volume Profile displays volume traded at each price level, which makes it easy to see what price was traded most.

There are many ways to use the Volume Profile. To help get you started, consider the following two major keys that may uncover hidden inflection price points—volume distributions and volume nodes.

VOLUME DISTRIBUTIONS

In a typical trading session, volume tends to be normally distributed—a fancy way of saying that when volume is displayed as a profile

on the same axis as price, the shape at the end of an average session frequently resembles a balanced bell curve (see Figure 1). Most volume occurs in the middle of this curve, while relatively little volume occurs in the upper and lower tails.

This seems remarkable, because the shape of the Volume Profile during the session often changes fluidly. Sometimes it resembles a “p” shape, where a lower tail exists, but not an upper tail (yet). Sometimes it resembles a “b” shape, where an upper tail exists, but no lower tail (yet).

By spotting the shape of a Volume Profile during the session, and estimating the price at which volume must occur to make it normally distributed, you can estimate the direction of future price movement—information you might find useful.

HIGH AND LOW VOLUME NODES

Prices at which the highest and lowest volume occurs are also noteworthy. Volume indicates levels of acceptance (high volume) and rejection (low volume). Intuitively, when volume is high, the price is usually equally attractive to both buyers and sellers. At a price where fewer participants are willing to transact, volume must adjust quickly to find equilibrium.

Therefore, low volume occurs at extreme highs and lows, when the price is too high for buyers or too low for sellers. High volume occurs in between extreme highs and lows, at an equilibrium price.

Hypothetically, you might be better off buying at a low-volume node at a support level. When you do, you're buying at a lower price than everyone else at the equilibrium price. Likewise, selling at a low-volume node at a resistance level means you're selling at a higher price than everyone else at the equilibrium price. —Words by DEVIN EKBERG, INVESTTOOLS®

FIGURE 1:
Inside The Bell Curve.

The Volume Profile overlay on the price chart is bell shaped, which means most of the volume is traded in the middle of the bell and the lowest volume is traded on either end.

Source: thinkorswim® platform.
For illustrative purposes only.



COOL TOOLS

Insert Volume Profile on your charts in thinkorswim by going to Studies > Add Study > Profiles

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Naked Short Put

PAGE 18

• A bullish, directional strategy with limited risk in which an unhedged put option with a strike that is lower than the current stock price is sold for a credit. The strategy assumes that the stock will stay above the strike sold; in which case, as time passes and/or volatility drops, the put option can be bought back cheaper or expire worthless, resulting in a profit.

Delta

PAGE 22

A measure of an option's sensitivity to a \$1 change in the underlying asset. All else being equal, an option with a 0.50 delta for example, would gain 50 cents per \$1 move up in the underlying.

Long Vertical Spread

PAGE 23, 24, 33

A defined-risk, directional spread strategy, composed of a long and a short option of the same type (i.e. calls or puts). Long verticals are purchased for a debit. Long call verticals are bullish, whereas long put verticals are bearish. The risk of a long vertical is typically limited to the debit of the trade.

CBOE Volatility Index (VIX)

PAGE 14

The VIX measures the implied volatility ("vol") of the S&P 500 index (SPX) options.

Short Vertical

PAGE 20, 33

A defined-risk, directional spread strategy, composed of an equal number of short (sold) and long (bought) calls or puts in which the credit from the short strike is greater than the debit of the long strike, resulting in a net credit taken into the trader's account at the onset. Short call verticals are bearish while short put verticals are bullish. The risk in this strategy is typically limited to the difference between the strikes less the received credit. The trade is profitable when it can be closed at a debit for less than the credit received. Breakeven is calculated in a short put vertical by subtracting the credit received from the higher (short) put strike, or in the case of a short call vertical, adding the credit received to the lower (short) call strike.

Implied Volatility

PAGE 14, 28

The market's perception of the future volatility of the underlying security, directly reflected in an option's premium. Implied volatility, is an annualized number expressed as a percentage (such as 25%), is forward-looking, and can change.

In the Money (ITM)

PAGE 19, 23, 24

An option whose premium contains "real" value, i.e. not just time value. For calls, it's any strike lower than the price of the underlying equity. For puts, it's any strike that's higher.

Out of the Money (OTM)

PAGE 18

An option whose premium is not only all "time" value, but the strike is away from the underlying equity. For calls, it's any strike higher than the underlying. For puts, it's any strike that's lower.

At the Money (ATM)

PAGE 28

An option whose strike is "at" the price of the underlying equity. Like out-of-the-money options, the premium of an at-the-money option is all "time" value.

Iron Condor

PAGE 14, 33

A defined-risk, short spread strategy, constructed of a short put vertical and a short call vertical. You assume the underlying will stay within a certain range (between the strikes of the short options). The goal: As time passes and/or volatility drops, the spreads can be bought back for less than the credit taken in or expire worthless, resulting in a profit. The risk is typically limited to the largest difference between the adjacent and long strikes minus the total credit received.

Calendar Spread (Long)

PAGE 11, 14

A defined-risk spread strategy, constructed by selling a short-term option and buying a longer-term option of the same type (i.e. calls or puts). The goal: as time passes, the shorter-term option typically decays faster than the longer-term option, and profits when the spread can be sold for more than you paid for it. The risk is typically limited to the debit incurred.

American-Style Options

PAGE 19

An option contract that can be exercised at any time between when you purchase it and when the contract expires.

DISCLAIMERS

IMPORTANT INFORMATION YOU NEED TO KNOW

1

GENERAL DISCLAIMER

The information contained in this article is not intended to be investment advice and is for illustrative purposes only. Be sure to understand all risks involved with each strategy, including commission costs, before attempting to place any trade. Clients must consider all relevant risk factors, including their own personal financial situations, before trading. Past performance of a security or strategy does not guarantee future results or success.

Transaction costs (commissions and other fees) are important factors and should be considered when evaluating any options trade. Options are not suitable for all investors as the special risks inherent to options trading may expose investors to potentially rapid and substantial losses. Options trading subject to TD Ameritrade review and approval. Please read Characteristics and Risks of Standardized Options (<http://www.optionsclearing.com/about/publications/character-risks.jsp>) before investing in options.

It is not possible to invest directly in an index.

2

OPTION STRATEGIES

Trading options involves unique risks and is not suitable for all investors.

Spreads, condors, butterflies, straddles, and other complex, multiple-leg option strategies can entail substantial transaction costs, including multiple commissions, which may impact any potential return. These are advanced option strategies and often involve greater risk, and more complex risk, than basic options trades. Be aware that assignment on short option strategies discussed in this article could lead to unwanted long or short positions on the underlying security.

Maximum potential reward for a long put is limited by the amount that the underlying stock can fall. Should the long put position expire worthless, the entire cost of the put position would be lost.

When trading short option strategies, there is a risk in getting assigned early on the options sold, even if they go in the money by \$0.01, obligating you to deliver shares you don't own (in the case of a short call) or purchase shares (in the case of a short put).

The risk of loss on an uncovered short call option position is potentially unlimited since there is no limit to the price increase of the underlying security. Option writing as an investment strategy is absolutely inappropriate for anyone who does not fully understand the nature and extent of the risks involved.

The short naked put and cash-secured put strategies include a high risk of purchasing the corresponding stock at the strike price when the market price of the stock will likely be lower.

Short naked option strategies involve the highest amount of risk and are only appropriate for traders with the highest risk tolerance.

A covered call strategy can limit the upside potential of the underlying stock position, as the stock would likely be called away in the event of a substantial stock price increase. Additionally, any downside protection provided to the related stock position is limited to the premium received. (Short options can be assigned at any time up to expiration regardless of the in-the-money amount.)

3

FUTURES

Futures trading is not suitable for all investors as the risk of loss in trading futures is substantial. Futures trading privileges are subject to TD Ameritrade review and approval. Not all account owners will qualify. Futures accounts are not protected by the Securities Investor Protection Corporation (SIPC). Equity options trading involves risks and is not suitable for all investors. Spreads and other multiple-leg option strategies can entail substantial transaction costs, including multiple commissions, which may impact any potential return.

Futures and futures options trading is speculative, and is not suitable for all investors. Please read the Risk Disclosure for Futures and Options prior to trading futures products (<https://www.tdameritrade.com/retail-en-us/resources/pdf/TDA631.pdf>).

The Trader Party: It's About Time

• Feeling left out of the political process? Are you an active trader whose interests aren't adequately represented in Washington? It's time for the traders of America to unite behind our shared goals of growing net liqs, tight bid/ask spreads, and financial independence.

Make this the Year of the Trader. Let's label ourselves a coalition of fundamental analysts, chartists, and option spreaders. We're dollar-cost averagers who represent an introverted yet passionate majority who can elect a trader as President of the United States.

Think big, keep your risk small, and get out and trade—err, um ... vote!

THE TRADER PARTY PLATFORM

Public assistance for low-income traders

• The benefits of high-frequency trading made available to all Americans, no matter what their financial situation. How about "trade stamps," like food stamps, to cover all those commissions? And tax credits for single-income-working-parent traders.

24/7 electronic trading on everything

• Traders shouldn't have to deal with "closed markets" on nights, weekends, and holidays. The choice to spend time trading or on some other inferior activity should be the individual investor's to make. In short, markets should be open whenever we feel like trading.

Internet priority for market-data transmission

• ISPs will prioritize quote, order routing, and platform downloads over all other Internet traffic. When we're working orders to close positions before expiration, we don't need our streaming quotes slowed down by somebody watching cat videos.

Require classes on volatility and probability from pre-K through college

• More, and smarter, traders make America stronger. That's why instruction in the concept, calculation, and application of volatility and probability in the capital markets will begin as soon as children can consume solids. There'll be no time for sippy cups while you're trading your heart out.

Mandatory trading breaks for all workers

• We recognize the universal human right to trade. We will enact and enforce laws giving all American workers, from the mailroom to the boardroom, a minimum of 30 uninterrupted minutes per day to monitor the markets, enter orders, and manage positions.





SHIFT YOUR TRADING INTO HYPER-DRIVE.

Buckle your chin strap and get ready for cutting-edge insights and new strategies from pro speakers and fellow traders. No matter your skill level, this free event gives you everything you need to boost your trader know-how.

- Test-drive revolutionary trading platforms and learn new skills
- Get answers and insights from our TD Ameritrade platform experts
- Interact with industry visionary and veteran Tom Sosnoff, CEO of tastytrade[®], Inc. and co-founder of thinkorswim[®]
- Bring a friend, because your friends are our friends



Visit tdameritrade.com/marketdrive to see the current schedule.

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