

thinkMoney[®]/35

Random musings for traders at TD Ameritrade —SPRING 2017



ARE YOU TRADING ENOUGH?

WHEN IS TOO MANY TOO MUCH? IT'S ABOUT QUALITY, NOT QUANTITY. **PAGE 16**

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COVER STORY

Are You Trading Enough?

Overtrading can be a killer to your P/L. The trick is to trade consistently and always know what the markets—and your positions—are doing. Only then can you pounce on the opportunities that come your way.

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The Fad Is Not Your Friend

How large should you go? The size of your position can be a tough choice, and using formulas can help. Some traders are borrowing from the Kelly Criterion—adopted by card players. Should you be using it, too? Not so fast.

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Markets Aren't Normal and Neither Are You

Need help choosing a strategy when markets are erratic? Kurtosis attempts to explain abnormal market behavior, but it's complicated. So forget the math and focus on how it explains the price behavior of options.

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The Unbalanced Butterfly: Tilting the Odds

You have a strong directional bias on a stock, time to expiration is short, and you want to squeeze as much as you can out of your position. When you find yourself in this situation, the unbalanced fly may just be the way to go.



Cover Photograph by
Fredrik Brodén

MISCELLANEOUS

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Vol Whisperer Can you calculate fear? Certain market measures help traders determine when the market seems "fearful." Learn to do this for yourself to better evaluate risk.

Gear Head It's earnings time. How do you prepare for it? The new Earnings tab can help.

Ask the Suit Use these cool tools to find new trades and set up your alerts with this state of the art alert system.

Toys for Traders Three new tools to try.

Capiche? Next up in our series on portfolio margin, we cover the greeks.

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TD Ameritrade's Brad Nave is as alert as a cougar. He has to be to make sure the data on your trading platform is up to date and accurate.

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Random decisions lead to random results. Consider using these two indicators more consistently to get in and out of trades.

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This just in: Could trading lead to an increase in your muscle mass without diet and exercise?



**"It's not always about
buying and selling, but how
you take control of the
investment process."**

Are You Trading Enough?

Page 16

SKILLS BAROMETER: See a dot. Read or pass.
If you've ever been frustrated spending your precious
few minutes reading articles that aren't for you, these little
color dots at the beginning of each article will help you
skip to the stuff that matters most to you.

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Spring is in the Air

• **ONCE AGAIN**, it's that time of the year—time to torture ourselves with fruit and nut diets, hit the gym every day, and use those half-off spray tan coupons—all for the love of summer and its sunny glory. And that's a great distraction. These things might boost your self-esteem, give you a break from screen time, and clear your mind—it's all good. We can all use a refresh from time to time.

Summer aside, does your trading need a refresh, too? Are you tired of seeing those winners turn to losers? Or crying the blues because you let a small loss turn into a bigger one? You're not alone. Most traders worth their salt go through this. Lucky for you, our cover story, "Are You Trading Enough?" on page 16, talks about the common mistakes traders make and offers action plans you can implement to overcome them. You're not going to nail every single trade, but to succeed, you need stay engaged with the market and trade consistently.

And keep learning, keep evolving. It's true that change can be good, but not all hot new trading concepts that come your way are going to work for you. Be wary of big promises and small rewards. In "The Fad Is Not Your Friend" on page 20, we'll dissect one of them. In theory, the Kelley Criterion makes big promises for card players, but it may not work so well in trading. We'll tear it apart and give you the 10,000-foot view.

But kurtosis—that's geek-speak for something that observably deviates from what's "normal" in the market. And since the markets are rarely normal 100% of the time, understanding kurtosis could help keep you out of trouble. For more, read "Markets Aren't Normal and Neither Are You" on page 24.

So, take a break from your body-by-summer routine and eat some brain food. Sit back and absorb this issue. Learn a few new tricks and apply them where it feels right. At least if you show up to the beach with an orange glow, you'll still be the wiser.

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



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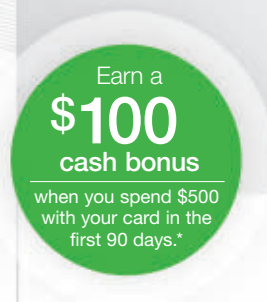
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• TD Ameritrade was ranked #1 overall out of 16 online brokers evaluated in the StockBrokers.com Online Broker Review 2017. We also rated #1 in several categories, including "Offering of Investments," "Platform & Tools," "Customer Service" "Education" "New Investors," and "Mobile Trading." Read the full article at www.stockbrokers.com/annual-broker-review.

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LOVE NOTES

LITTLE QUIPS FROM YOU TO YOURS TRULY



JOIN THE FUN

Let's chat and hear your best and brightest quips. Who knows, they may make their way to these pages. thinkmoney@tdameritrade.com

Best in Show ... (To Our Inbox)

My 3-D printer is printing a replica of me to sit here and buy, buy, buy; book profits for me; and also trap me in worthless expired options calls so I can go do something with my life of leisure to be proud of. —**Pete**

Thought for the day: "Patience is the ability to keep your motor idling when you just want to peel rubber." —**Jack**

When to sell is always a difficult decision. I don't get married to an investment but it is very serious dating. —**Sam**

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...

They're giving Play-Doh to college students who are "traumatized" by the election results. (Truth is stranger than fiction!)
—MARK

Be humble or the market will do it for you.
—LESLIE

CHAT SWIMMER #1:
I'm on my phone in my doctor's office.

CHAT SWIMMER #2:
Don't be in the middle of a trade when he asks you to cough.

Too much confidence and under-capitalization are deadly ... also vanity, arrogance, ignorance, and stupidity. Other than that, trading is easy.
—BENNETT

If you can still see the actual price bars, then there aren't enough indicators on the chart.
—STAN

I have fitted my Crash-Onesie with belt loops so I can wear my stud belt with it.
—MAX

If I went by my feelings I would blow my account.
—JIM

Play tomorrow is OnDemand to see the future. That'd be a nice feature to have.
—BETH

I started out with nothing, and still have most of it.
—BRAD

It's hard to make a comeback when you haven't been anywhere.
—TAYLOR

It's a whole lot easier to get older than to get wiser.
—TIM

A sign for the door: No pets, insects, dust, or more than one human allowed in the trading room.
—JACK

The risk is so high that it would be like taking a bath with a toaster.
—ELAINE

My mind is like that old head of lettuce that's been in the fridge for six weeks.
—ERIC

GET CHATTING

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IN THE MONEY

A HODGEPODGE OF MARKET STUFF YOU SHOULD KNOW



• FEAR IS AS MUCH a part of modern trading as macroeconomics. But don't let those fears haunt your trading dreams. Two lesser-known market measures can help self-directed traders get a deeper understanding of risk and what makes the market jumpy.

You can't trade a gauge or index or "feeling." But you can keep an eye on these barometers and grow your awareness of potentially extreme market moves. Because options markets are often driven by fear, learning to spot those clues could elevate your trader status and possibly improve results.

Institutions routinely use VVIX and SKEW, mostly for tail-risk hedging strategies. You can, too. Let's take a deeper dive.

FEAR AND THE VVIX

The **CBOE Volatility Index** (VIX)—commonly referred to as the "fear gauge"—is driven by SPX options prices. But what about the VVIX index, which takes the VIX to a deeper level and analyzes, in some sense, the "fear of fear?" The CBOE uses the same methods in both indices, but there's one crucial difference. The VIX is based on SPX options, while the VVIX is based on **out-of-the-money** (OTM) VIX put options.

Punch in the symbol VVIX on your thinkorswim® from TD Ameritrade platform. Consider the long-term chart to see VVIX's range and the average value of that range. Where does the VVIX's value stand with respect to that average?

In short, the logic of the VVIX is based on volatility. When vol is high, you might expect greater implied-vol fluctuations. As a result, the market could bid up options on vol products. If you see a relatively high VVIX, this suggests there may be a premium to sell in VIX options.

BLACK SWANS AND SKEW

Don't confuse this with the "skew" that

VOL WHISPERER • PRO

VVIX and Skew—I'm Watching You

BIG IDEA: CAN YOU MEASURE FEAR? CERTAIN MARKET MEASURES HELP TRADERS DETERMINE WHEN THE MARKET SEEMS "FEARFUL." LEARN TO DO THIS FOR YOURSELF TO BETTER EVALUATE RISK.



COOL INFO: Want to know more about VVIX and SKEW? Check out cboe.com for all sorts of nuggets of info on these two indicators.



means tilt in a normal distribution curve. The CBOE SKEW Index, also called the “black swan” index, measures the probability of outlier events, or down moves, of two to three standard deviations. The SKEW’s value typically ranges from 100 to 150, although it’s been known to go lower and higher. When it’s at or close to 100, the possibility of a black-swan event is unlikely. The market in these moments is complacent. When the SKEW is at 115, it suggests a 6% risk of a black-swan event occurring. If SKEW is at 135, that risk can rise to 12%.

You see how risk often doubles when the SKEW moves from 115 to 135. To put some context around current market risk, type the symbol SKEW into your thinkorswim platform. Pull up a chart and look back over a two- to five-year period. You’ll see that SKEW hit a high of 153.66 on June 27, 2016, in response to the Brexit vote.

What can a high SKEW mean for your portfolio? It signals that OTM puts are being bid up. And if OTM puts are trading high, that could signal a potential opportunity to sell puts.

PAY CLOSE ATTENTION

Despite all the fancy science wrapped around trading, market fluctuations are often driven by emotion. If you have a feel for what those emotions are at certain critical inflection points, consider yourself a market participant who’s paying attention.

Above all, stay vigilant. If you’re watching SKEW and VVIX in relation to your own strategies, you may be ahead of the fear game. So go ahead, talk up VVIX and SKEW at your next shindig—you’ll be all the rage.

—Words by JAYANTHI GOPALAKRISHNAN

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You cannot invest directly in an index.

GEAR HEAD ● SEASONED

It’s Earnings Time

BIG IDEA: YOU KNOW WHEN EARNINGS WILL BE RELEASED, BUT HOW DO YOU PREPARE FOR IT? WITH THE EARNINGS TAB.

• Earnings season: There’s this euphoria that surrounds it. Traders love it because there’s a chance of a quick movement in a stock’s price. There’s so much buzz about what the consensus is, but there’s still that element of surprise. Companies release earnings quarterly—that you know. No surprise there. You also know when they’ll make their announcement. What you don’t know is what that earnings number will be. And when that announcement is made, there’s a potential for a dramatic move, one that could result in opportunities or risk. You still need to be prepared to better manage your positions, and lucky for you there are ways you can prepare yourself. For example, you could find out how a particular stock reacted to previous earning periods. This is where the new Earnings tab in thinkorswim® can be useful. It allows you to compare past earnings results, volatility around earnings, and both analyst and crowdsourced estimates from Estimize.



COOL TOOLS:
For the latest release notes and thinkorswim how-to videos, go to tlc.thinkorswim.com.



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LOOK AT PAST DATA

Here’s how you can navigate around the Earnings tab.

1 – To view earnings-related information, click on the Analyze

tab and then click on the Earnings subtab. Enter the symbol for a company you are interested in.

2 – The “Fit all” and Zoom sections of the tool show pricing and volatility data five days before and after the

earnings event in increments of days and 30 minutes, respectively. **3** – The bottom section displays Wall Street’s consensus estimated earnings and revenue ranges, Estimize ranges, and the actual results of previous earnings.

4 – The rightmost column displays the upcoming earnings estimate as well as pricing and volatility data starting five days before the event.



Ask the Suit

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



• Okay, time for brass tacks. How do I find new trades?

Straight to the point! My type of question. Searching for new trades can be as thrilling as hunting for treasure at a 75% off sale at your favorite high-end store. Long-term bull markets can and do lead to low volatility, which means you need the most thorough tools to find trades. This is when I pull up my thinkorswim® Scan tab. Scanning for stocks is not a new idea, but thinkorswim lets you add all the complexity you want as well as a state-of-the-art alerting system.

Let's start with the "trade what you know" aspect of the answer. First you need to look at the companies you know best by creating a watchlist of those symbols. Let's call it NicoleKnowsBest. Now pop over to the Scan tab and bring up the **Options Hacker**. The first selection at the top of this

"To find new products, you need to have stable rules and a well-defined strategy."

—NICOLE "THE SUIT" SHERROD
@TDANSHERROD

page lets you choose which set of symbols you would like to scan. Choose your watchlist, in this case NicoleKnowsBest, and start to build your criteria. I like to look at things like days to expiration, percent out-of-the-money, open interest, and even mark percent of the underlying. Once your criteria are all set, press Scan and boom! You see possible options trades for the companies you know.

To find new products, you need to have stable rules and a well-defined strategy. The Scan tab excels here, too. To try it out, go back to the thinkorswim Scan tab and choose the **Stock Hacker**. You'll see the filter types we offer and can have them all intertwined with each other. For example, you can add stocks that are within 0.5% of their 52-week high (study filter), have a last price of at least \$20 (stock filter), and have a free cash flow per share growth year over year of at least 2% (fundamentals filter). Hit Scan and there you have some new products to check out.

Now let's get artsy, and I mean state-of-the-art artsy. At the top right of the scan results you'll see a menu icon. Click on this and choose "Alert when scan results change." This feature will send you an alert (e-mail, text, push notification, etc.) whenever a symbol is added or removed from this scan. Yes, whenever, and that means day or night, rain or shine. The alerts are saved server side and tied to your thinkorswim account so you don't have to have the platform open to receive them.

So, to answer your question, use the tools thinkorswim offers to find trades and customize them to your needs.

TOYS FOR TRADERS

FROM THINKORSWIM®

ACTIVE TRADER LADDER

A shout-out to active traders: Do you want to trade even quicker and easier? You now have the ability to see upper chart studies on the Active Trader Ladder. Once set up, icons matching the color of study plots on the price area of the chart will be displayed to the right of the price column on the ladder. You can see when the price action is reaching or has reached a critical technical level. To enable this, go to the Trade tab, and then Active Trader. Right-click on a column heading on the ladder and select Show Studies from Chart.

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If you prefer your news in video form, take a look at the Videos subtab under the Tools tab. From here, you can watch archived new videos from Reuters and CNBC. If you don't enter a symbol in the symbol box, you'll see a huge list of video titles, along with short descriptions. If it's too much to go through, filter the results by a particular symbol in the entry box or click on the gear icon next to the symbol box to filter by your watchlist. Pick and choose which ones you'd like to watch.

ORDER NOTES

Can't remember why you placed a trade? That's why writing notes can help. At the bottom of the order confirmation dialog box, you'll see a field for entering a note. Simply enter a snippet about why you entered an order or other relevant details. You can view the note later from the Monitor tab or access it from Tools thinklog.

CAPICHE ● PRO

Portfolio Margin Part 2: Greeks, Unveiled

BIG IDEA: NEXT UP IN OUR SERIES ON PORTFOLIO MARGIN, WE COVER THE GREEKS.



GREEKS JARGON

Delta – A measure of an option's sensitivity to a \$1 change in the price of 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 calls and short puts have positive (+) deltas, meaning they gain as the underlying gains in value. Long puts and short calls have negative (–) deltas, meaning they gain as the underlying drops in value.

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

Theta – A measure of an option's sensitivity to time passing one calendar day. For example, if a long put has a theta of -.02, the option premium will decrease by \$2 per option contract.

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

and is expressed in dollars. If you are short a put that has a theoretical value of \$2, a theta of \$0.10, and other things stay the same, the put's theoretical value would be \$1.90 tomorrow.

Vega for volatility. A change in implied “vol” also only impacts the time value of options, and is expressed in dollars. When vol goes up or down, time premium goes up or down, respectively. If you have a **long straddle** that has a theoretical value of \$6, a vega of 0.50, and implied vol increases by 2%, and all other things stay the same, the theoretical value of the straddle would then be \$7.

WHAT'S IT GOT TO DO WITH PORTFOLIO MARGIN?

Portfolio margin uses the greeks—or rather the theoretical pricing model behind the greeks—to figure out the largest loss a position could theoretically have across a range of underlying stock or index prices and volatilities. This is important because that largest loss is the margin requirement for a position in a PM account.

Suppose a short 150 strike put on a stock trading at \$160 has a theoretical value of \$4.00, a delta of 0.30, a gamma of -0.02, and a vega of 0.10. PM tests the loss on that put with the stock down 15% and vol up 10%. If the stock goes down \$24 to \$136, the put would be worth at least its \$14 intrinsic value, which means the put loses \$1,000, and the rise in vol could add another \$100 loss because of the put's short vega. If PM finds the theo loss to be \$1,100, the portfolio margin requirement is \$1,100.

Use of portfolio margin involves unique and significant risks, including increased leverage, which increases the amount of potential loss, and shortened and stricter time frames for meeting deficiencies, which increases the risk of involuntary liquidation. Client, account, and position eligibility requirements exist and approval is not guaranteed.

Thomas 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.

• **MORE LEVERAGE** using portfolio margin (PM) means you need to bump up your risk management a few notches. And that means it's a good idea to be sensitive to price changes. Now is a good time for a refresher course on the greeks—theoretical metrics that describe how things like stock price, time, and volatility “vol” can impact option prices. Though there are five greeks in all, we'll cover the four most critical here—**delta***, **gamma***, **theta***, and **vega***. If you need a refresher on each, use the “Greeks Jargon” cheat sheet.

Delta for how much change. Delta can be positive or negative, and can be expressed as either the number of shares an option

position “acts” like, or the profit or loss an options position might have when the stock price moves up or down \$1. So, all things equal, a call with a value of \$3 and a 0.40 delta, could theoretically be worth \$3.40 if the stock goes up \$1.

Gamma for speed of change. The rate of change in delta (per \$1 move in the stock) is due to gamma. For example, if a put with a delta of -0.40 has a gamma of 0.07, and the stock dropped \$1 while other things stayed the same, the new delta of that put would be -0.47.

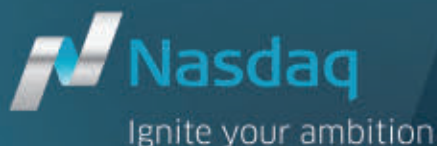
Theta day by day. Theta only impacts the extrinsic value (“time premium”) of options

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ARE YOU

TRADING ENOUGH?

BIG IDEA: OVERTRADING CAN BE A KILLER TO YOUR P/L. THE TRICK IS TO TRADE CONSISTENTLY AND ALWAYS KNOW WHAT THE MARKETS—AND YOUR POSITIONS—ARE DOING. ONLY THEN CAN YOU POUNCE ON THE POTENTIAL OPPORTUNITIES THAT COME YOUR WAY. WORDS BY **MARK AMBROSE**

PHOTOGRAPHS BY FREDRIK BRODÉN

● **EASY/ TAKE AWAY:** *Stay engaged in the markets to better manage your trades.*

DID YOU PUT UP A TRADE TODAY?

If not, did you at least know how your positions were doing? The term “trading” doesn’t just refer to placing an order. Think of a market maker who “trades” on the floor. She may have spent most of the day waiting for an order to come in. But while she’s waiting, she’s well aware of her open positions and how key futures like /ES, /NQ, and /ZB are performing. She’s fully engaged, and that’s also what trading is about. The more you’re aware of the various moving parts, the sharper and more focused you’ll be.



Progress, Not Perfection

Let’s be clear. Actively buying and selling stocks, options, or futures without a strategy is a great way to run up commission costs and drive your account value to zero. So, the goal is not blanket buying and selling. The goal is thinking about how to become more engaged with the market. It’s about implementing an investment strategy consistently, with discipline.

Say you want to become a better golfer. You could read magazines, watch videos, or try out those cool electronic simulators. But still, there’s no substitute for feeling the texture of a course, driving and putting in the

sun and rain, dealing with messy sand traps, and the other influences that will shape and deepen your game. Ultimately, you can only get great in real time.

If you’re active in the market, it doesn’t mean you’re guaranteed profit. You must still deal with risk and loss no matter how much time you have on the trading “course.” The point is, you start to build critical habits. You deal with the ups and downs the market throws at you. You swing at a few trades. Some you hit. Some you miss.

Renegotiating Market Sand Traps

Say you’re hitting your engagement marks—monitoring your positions, your P/L, current prices, account value, and more. You may even understand and employ certain strategies like **verticals**, **covered calls**, **iron condors**, and so on. You know how these strategies make and lose money. But maybe your account isn’t generating the returns you’d like to see. How do you improve your results? Consider four scenarios that may relate to your lower returns and how they can be rectified with active engagement.

1

A WINNING TRADE TURNS INTO A LOSER

ANALYSIS. We’ve all been there, and it’s discouraging. It’s like shooting a great 16 holes and beating your handicap, only to shank and slice right into the water traps in the last two. Of course, there’s no foolproof strategy to

make sure a winning trade never loses. But unlike those water traps, in the market you may be able to free yourself from those pitfalls.

ACTIONS. Make it a habit to log into your account through the TD Ameritrade thinkorswim® platform and check your positions every day. Look at the daily P/L of your positions by going to the **Monitor** tab in the **Position Statement** section. Above all, know which positions are winning and losing. If you have a trade on with a profit, consider using a stop market or stop limit



TAKE ACTION:

To learn more about the **Position Statement** in thinkorswim, watch the video at <http://bit.ly/2kGNox5>

order with a trigger price that may help protect some of that profit if the trade falters. A stop order is no absolute guarantee of profit, and you can incur commissions. But it could unwind some

of the position and prevent a winner from becoming a loser.

2

LET A SMALL LOSING TRADE TURN BIGGER WITHOUT INTERVENING

ANALYSIS. Think deer in the headlights. A losing trade in your Position Statement will surely get your attention, but it could make you freeze—just like how you stare at the golf ball you just hit as it drifts away from where you want it to go. Helpless. But engagement makes a difference.

ACTIONS. For starters, acknowledge the loss. It’s real. It’s happening. Can you think of something that’ll reduce the loss without adding to the risk? If you are an options trader, is there a call you can sell against long stock to reduce the stock’s breakeven point? If it’s an iron condor that’s losing because the stock has dropped below its short put strike, could you roll the **short call vertical** side to lower strikes to collect more credit, and

potentially reduce the iron condor’s risk?

Be creative. You don’t necessarily want to add to a losing position. Check out the **Trade** page on the thinkorswim® platform and look at the options available for that stock or index. Is there an options strategy in the same expiration as the position, or even



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in a different expiration that could offset the loss? Finally, is there an unexpected reason the trade is losing money? Maybe it's not just the stock price moving against it. Maybe a change in volatility or time is hurting it. Maybe the position is too big. In a word, take an honest inventory. Give the loser a long, hard look—the position's greeks are on the **Position Statement**. See how implied volatility might have changed by looking at the ImpVolatility study on **Charts**. Is there something to avoid in the future?

3 WAITING FOR THE PERFECT OPPORTUNITY

ANALYSIS. Rely on criteria that let you separate bad trades from potential opportunities. That criteria could be something like reward versus risk. Or positive **theta** and defined risk. Or strong financials and diversification. You might also consider charting patterns and technical analysis if that's your thing. Your goal is not perfection. Should you add too many variables, you might never find the right spot to dive in. Do your homework but avoid waiting for a perfect opportunity that may never come.

 **TAKE ACTION:**
Waiting for Godot?
That perfect opportunity may not present itself, but just in case, one option is to set an alert to notify you when it does and go on with your life. You can set alerts on everything from price targets to drawings. Go to **Alerts** in the **Market-Watch** tab to set them up.

ACTIONS. Above all, it becomes a question of how much confidence you have in your core strategy. Use the **paperMoney**® platform in thinkorswim (Figure 1) to experiment with

trading without real money. It allows you to put on that not-quite-perfect trade and gauge its progress. This practice run could help you refine your approach, kind of like the golfing simulators that let you swing a real club as you watch a digital ball. If you make a mistake, you hit the reset button.

4 SUFFERING FROM ANALYSIS PARALYSIS

ANALYSIS. This pops up in trading often. Markets are infinitely complex. You can always ask one more question about a stock, company, or strategy. If you could just answer one more question or run one more test, you'd do the trade. This is related to number three above, but there's a difference. Your indicators line up, but you're still not going to put on the trade. At some point you may need to put on a trade.

ACTIONS. Look at your account's **Net Liquidating Value** (Account Info section) in the upper left-hand corner of thinkorswim. The "net liq" shows how much your account is worth. Now assume a potential trade has a max possible loss. If you don't know what the max loss is, load the trade up as a simulated trade on the **Analyze** page to find it. Now

QUICK TERMS

Stop Market Order Upon activation, a stop market order becomes a market order. The benefit of a stop market order is that it will seek immediate execution once the activation price has been reached. The disadvantage of a stop market order is that the client does not have any control over the price at which the order executes. There is no guarantee the execution price will be equal to or near the activation price.

Stop Limit Order An order to buy or sell a stock that combines the features of a stop order and limit order. Once the activation price is reached, a stop limit order becomes

a limit order that seeks execution at the specified limit price or better.

The benefit of a stop limit order is that the investor can control the price at which the order can be executed. However, a stop limit order also carries the risk of missing the market altogether because it may never reach or it may surpass the specified limit price. In a fast-moving market, it might be impossible to execute an order at the limit price, so you may not have the protection you sought.

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divide that max loss by the net liq of your account. What's the percentage? This puts the potential loss in perspective. If your net liq is \$5,000, and the max loss on a short vertical, for example, is \$70, the loss would represent 1.4% of your account value, not including commissions. You don't want to lose 1.4%, but is that a risk you can accept for a given strategy? If you have confidence in your strategy, you should be able to answer that question.

Engagement = A Sharper Trader

If you do more than just trade and pay attention to the underlying conditions of the trading course (as it were), you'll build knowledge, experience, and a much deeper understanding of how the market expresses itself. It doesn't guarantee profit, but over time, you can gain a certain amount of expertise, wisdom, and instinct.

It's not always just about buying and selling, but about how you take control of the investment process. If it's sunny and windy, your trading "ball" could end up in the next county. Be prepared.

The 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 substantial stock price increase. The paperMoney® trading application is for educational purposes only. Successful virtual trading during one time period does not guarantee successful investing of actual funds during a later time period as market conditions change continuously.

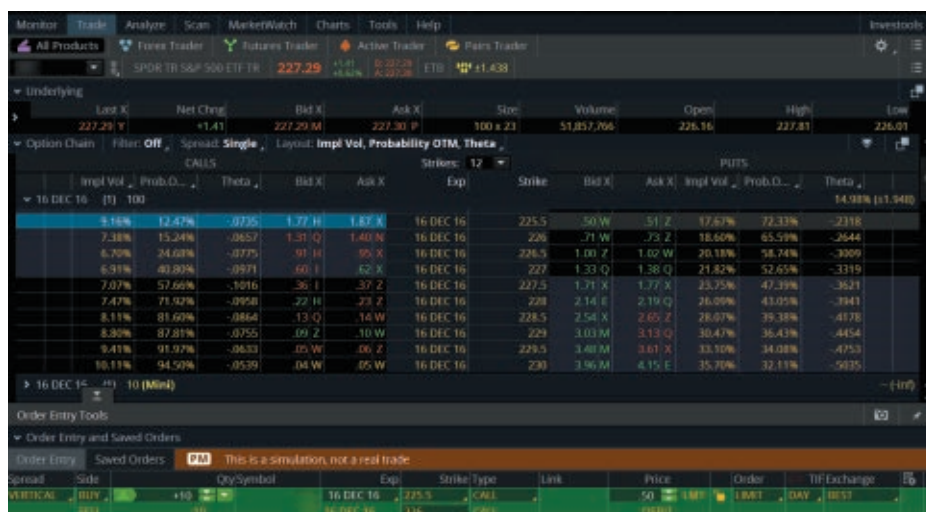


FIGURE 1: Look familiar? It should. The paperMoney trading platform in thinkorswim is just like the real thing—almost. You can test your not-so-sure theories without risking real money.
Source: thinkorswim by TD Ameritrade. For illustrative purposes only.

● SEASONED / **TAKE AWAY:** *For position sizing, don't let theory fool you. Stick to what's relevant and what you can control.*



BIG IDEA: HOW LARGE SHOULD YOU GO? THE SIZE OF YOUR POSITION CAN BE A TOUGH CHOICE, AND USING FORMULAS CAN HELP. SOME TRADERS ARE BORROWING FROM THE KELLY CRITERION ADOPTED BY CARD PLAYERS. SHOULD YOU BE USING IT, TOO? NOT SO FAST.

THE FAD IS NOT YOUR FRIEND

WORDS
BY
**THOMAS
PRESTON**

PHOTOGRAPH
BY
**FREDRIK
BRODÉN**



The market in 2017 won't be like the market in 2016, which wasn't like the market in 2015. Sure, there might be similarities. But what makes each market true to itself is perpetual uncertainty. To handle this ride as a trader, you need to keep learning, investigating, and evolving. Acquire as much knowledge as you can. And most of all, learn to apply that knowledge correctly.



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Like all card players worth their salt, traders are forever on the hunt for the next hip "something" to give them an edge. Streaming quotes? Got 'em. Split-second order executions? Check. Customized market and account information updated in real

time? Love it. Beyond that, traders are happy to poke around in whatever newfangled financial or statistical theories come down the pike. And one theory that routinely pops up in trading circles is the Kelly Criterion.

WHAT HAPPENS IN VEGAS ...

Back in the 1950s, a super smart guy, John L. Kelly at Bell Labs, turned his attention to Las Vegas. For mathematicians, games of chance have long been a focus of study and source

of inspiration. Kelly devised a new strategy for bet-sizing in blackjack and poker. Instead of betting \$10 on every hand, he suggested a different amount, say, \$5 or \$20, depending on the difference between the theoretical probability of winning the hand versus the probability of success you think the hand has.

For example, consider a single deck of cards in a blackjack game. There are 16 cards with a value of 10 or higher (10, jack, queen, king) and four aces. If 12 of those "10" cards and three of the aces have already been played, you might adjust your strategy and bet according to a perceived increase in the probability of winning that hand. The Kelly Criterion therefore represents a percentage of your total "stake" that the theory suggests you wager. It goes like this:

$$\text{Kelly \% to bet} = (\text{prob of winning} * \text{payout} - (1 - \text{prob of winning})) / \text{payout}$$

Payout is the amount of money you'd get if you win a bet that costs \$1. So, if you bet \$1 to make \$2, and you win, that's a \$2 payout on a \$1 bet (i.e., 2:1 odds). And the probability of winning is what you estimate the likelihood of winning to be. As an example, let's say you think the probability of winning a bet that pays \$2 on a \$1 bet is 40%:

$$\text{Kelly \%} = (40\% * 2 - (1 - 40\%)) / 2 = 10\%$$

The Kelly Criterion suggests you bet 10% of your stake on that single wager. If you have a \$500 stake, you'd wager \$50 on that bet. But what if you thought the probability of winning was only 20%?

$$\text{Kelly \%} = (20\% * 2 - (1 - 20\%)) / 2 = -20\%$$

If the Kelly Criterion gives you a negative result, you wouldn't wager any amount on that bet.

Some curious traders found out about Kelly. They thought his ideas might help determine how many contracts they should buy or sell for a particular trade. Kelly, they deduced, might suggest one contract in one situation, or five contracts in another. Hey, if it's good enough for Las Vegas, it's good enough for trading, right? Well, as always, there's a little fine print.

... STAYS IN VEGAS

The formula compares the probability derived from the odds (win \$2/bet \$1) to how you perceive the probability of making a winning bet (40%, 20%, etc.). To derive probability from the odds, divide the cost of

the bet, by the cost plus the payout. So, 2:1 odds would have a $1 / (2+1) = 33\%$ probability of winning that \$2 payout; 3:1 odds would have a $1 / (3+1) = 25\%$ probability of winning that \$3 payout.

In the 2:1 odds example, the odds say there's a 33% probability you'll win, but you think you have a 40% probability of winning. That's the rationale for placing a 10% wager on that bet. Now let's say you think you have a 50% probability of winning that 2:1 bet:

$$\text{Kelly \%} = (50\% * 2 - (1 - 50\%)) / 2 = 25\%$$

Yikes! A 10% increase in your estimate of probability increases the Kelly Criterion percentage by 2.5. See the problem? If you incorrectly estimate the probability of making money, the amount you would wager (read "risk") can vary widely. Some traders might estimate the probability of making money on a trade by looking at their history of making similar trades. If eight of the past 10 of those types of trades—say, **short calls**—have been profitable, then wouldn't the next short call have an 80% probability of winning?

Not so fast. It's possible to have strings of winning or losing trades that don't necessarily reflect the future potential performance of the strategy. As you've often heard, past performance is never an indication of the future.

Now, this is not an exhaustive treatment of Kelly, but the point's still the same. The "market" says there's a 33% probability you'll make money on that 2:1 bet. But you think you have a 40% or 50% probability of making money. The higher you go, the bigger your bet.

It takes a lot of guts and ego to think that your probability estimate for winning on a



FIGURE 1: Size Up Your Positions. From the Analyze tab, enter a simulated trade, select the beta-weighting option, and see how the delta of the trade stacks up against others in your portfolio.

Source: thinkorswim by TD Ameritrade. For illustrative purposes only.

bet or trade is more accurate than everyone else's. And if you trade too big based on assumptions, and you're wrong, and the trade loses money, it can cost you a big chunk of capital.

It's not that the Kelly Criterion is mathematically incorrect. When it comes to trading, there are so many variables that fixed odds for a single trade aren't possible. Moreover, the market has thousands of participants driving stocks and options prices to an equilibrium that might represent a theoretical fair value. I'm not picking on the Kelly Criterion. There are options pricing models that use stochastic volatility inputs. It sounds great, until you try to come up with a predictive volatility model.

But the motivation for using the Kelly Criterion can be valid: You want some sort of method to determine how much you might risk on a given trade. Start with a more reasonable and safe assumption. Unlike card games, there are no "edges" in trading. Arbitrages don't exist for retail traders. Guaranteed profits beyond simple risk-free interest rates don't exist, either.

With all that out of the way, there are a couple of approaches to position sizing you could consider.

POSITION SIZES: BEYOND VEGAS Capital Requirements.

One approach suggests you can balance positions by capital requirements and/or risk. The amount of money required to put on a trade is determined by your broker, the clearing firm, and regulatory agencies. And that amount is typically tied to a position's level of risk.

Riskier positions can have larger capital requirements. It doesn't assume anything about the probability of making money or whether it's a good or bad trade. But that assessment of risk can tell you something. If you don't pick favorites, no position should require more capital or risk than others. This means the risk might be roughly balanced across positions in your portfolio. For example, if the other positions in your portfolio have \$100 capital requirements or max losses, you might consider a trade with a capital requirement or max loss of \$25. If a trade has a capital requirement or max loss of \$200, maybe you pass.

Beta-Weighting. The second approach is similar to the first, but considers the beta-weighted **deltas*** of your positions. Delta is a measure of market risk, and beta-weighting your position deltas to a common index, like SPX, basically lets you turn grapes and bananas into apples, then compare apples. For example, a position in ABCD might show a delta of +200, and a position in XYZ might show a delta of +50. But ABCD's SPX beta-weighted deltas might be +75, and XYZ's SPX beta-weighted deltas might be +100.

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You could say that the XYZ position is riskier than the ABCD position because XYZ could theoretically act like +100 deltas in SPX, versus +75 deltas in ABCD.

To see the beta-weighted deltas of your portfolio, hop on to your thinkorswim® platform by TD Ameritrade, select the **Monitor** tab, and look under the **Position Statement** section. If the beta-weighted deltas are roughly the same across the positions in your portfolio, the risk might be roughly balanced.

Now, to figure this out before you place a trade, you can see the beta-weighted deltas on the **Analyze** page, too. You can enter a simulated trade and see how its beta-weighted delta compares to the others in your portfolio (Figure 1). If it's smaller, you might consider increasing the size of the trade. If it's larger, you might consider trading fewer shares or contracts, or passing on the trade completely because it's too risky.

GANGSTERS ARE A MIRAGE

Good position sizing can help keep your trading account out of trouble. Bad position sizing can destroy you. And any approach to position sizing can be misused. Luckily for you, you have the tools on thinkorswim to help analyze potential trades and your portfolio so you don't rely on dangerous assumptions. Market uncertainty can threaten you all it wants with its Vegas-style tough talk. At the closing bell, put on a Frank Sinatra record, kick your feet up, and revel in your superior trading brain. After all, size matters.

Thomas 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 on the general risks of trading and trading options, see page 37, #1-2.

● SEASONED / **TAKE AWAY:** *How studying abnormal market behavior can affect your strategy selection.*

MARKETS AREN'T *Normal* AND NEITHER ARE YOU

BIG IDEA: NEED HELP CHOOSING A STRATEGY WHEN MARKETS ARE ERRATIC? KURTOSIS ATTEMPTS TO EXPLAIN ABNORMAL MARKET BEHAVIOR, BUT IT'S COMPLICATED. SO FORGET THE MATH AND FOCUS ON HOW IT EXPLAINS THE PRICE BEHAVIOR OF OPTIONS.

WORDS BY **THOMAS PRESTON**

PHOTOGRAPH BY FREDRIK BRODÉN

**I'M WITH
NORMAL**



WHEN YOU GET TEST RESULTS FROM AN ANNUAL PHYSICAL,

the word “normal” is music to your ears. But “normal” also implies there’s a “not normal,” with all sorts of attendant judgments and the specter of medical TV dramas. Maybe that’s why traders become traders. We see the world differently. We’re not normal—in the best sense. To us, “strangle” is something we trade. And “net liquidating value” has nothing to do with happy hour.

So, no surprise here: theoretical assumptions that underlie much of market and options theory—e.g., market returns are normally distributed—aren’t always right. Traders get that. Going deeper, traders never forget that our assumptions are constantly challenged.

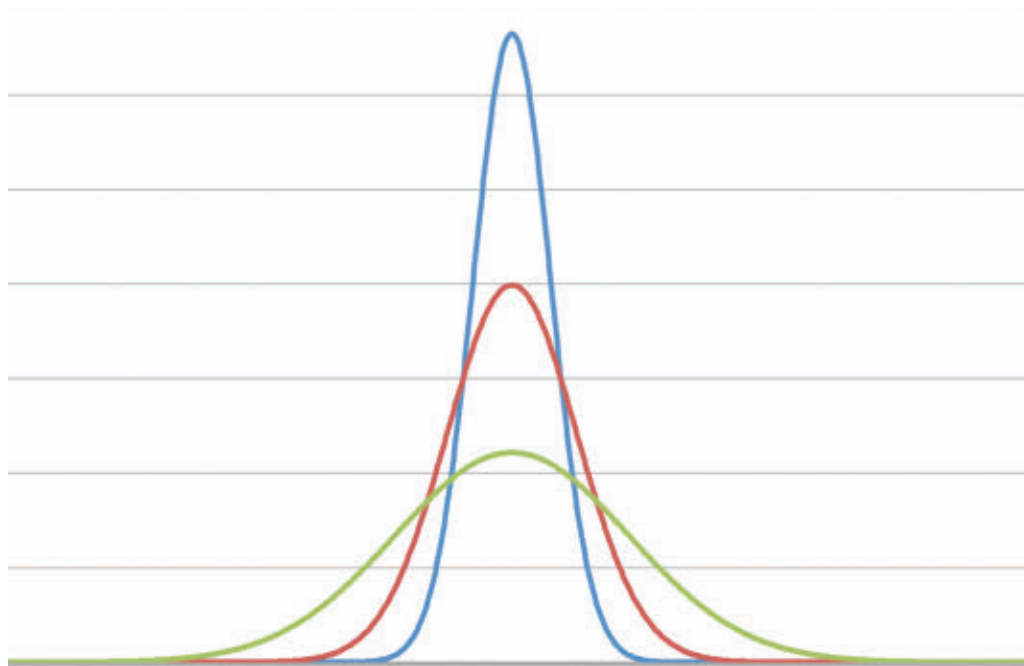
When you hear “normal distribution,” think bell curve. And when you hear “returns,” think percentage returns of a stock or index over some period like a day, week, or month.

Options theory (e.g., Black-Scholes and other options pricing formulas) assume that market returns are normally distributed, because the normal distribution is “mathematically tractable” (semi-easy to compute), and that distribution is a good representation of what we see in the markets. Options theory assumes most daily stock and index returns are more frequently closer to 0% than they are to -20% or +20%. Those +/- 20% changes are possible, but they tend to be less frequent than changes of 1%, for example.

So, theory assumes market returns (not market prices, which are assumed to have a lognormal distribution) are normal. But traders like us know the markets don’t always behave with predictable happy endings. We see stocks take off in rallies, career and crash, gap higher and lower, or have disruptive series of consecutive up-or-down days that make it tough for anyone to describe any of this as a normal distribution.

THE NEW NORMAL

Enter kurtosis, the term used to describe how data can deviate from the normal distribution. The red line in Figure 1 is a normal



For illustrative purposes only.

FIGURE 1: More or less kurtosis? The green distribution curve, or data with a fatter tail, has more kurtosis. The taller peak, as seen in the blue distribution curve, has less kurtosis.

distribution without any “excess kurtosis.” The blue line has less kurtosis, and the green line has more kurtosis. Although the data is always most frequent around the middle, the green distribution has more data frequency in the “wings.”

Kurtosis describes data that has a fatter tail or taller peak in a normal distribution. And market data can exhibit those fatter tails, which are larger percentage-price changes—more frequently than a normal distribution would suggest. For example, if the normal theoretical distribution suggests that five out of 1,000 price changes will be greater than -10%, but in real market data you see eight out of 1,000 price changes greater than -10%, you can say the market data has “excess kurtosis.” When the distribution has “fat tails,” you call it “leptokurtic.” Try saying that 10 times fast.

You can test data (e.g., stock returns) for kurtosis. If you’re one who gets turned on by math formulas, test percentage price change data using the kurtosis formula. If it’s too dense for you, there are other ways.

$$\text{Kurtosis } [X] = [E [(X - \mu)^4] / \sigma^4] - 3$$

Just so you know what the symbols are,

$$\begin{aligned} \mu &= E[X] \\ \sigma &= E[(X - \mu)^2] \end{aligned}$$

Kurtosis is the fourth “moment” of the normal distribution (the first being its mean,

the second its standard deviation, the third its skewness). It is by nature backward looking because it uses historical returns.

That’s why calculating the kurtosis of stock or index returns isn’t nearly as helpful as seeing the market’s interpretation of kurtosis—the implied volatility (IV) skew. Really, then, kurtosis is just a name for what we observe in the markets. We have bigger price changes than we expect (think 1987 and 2008 crashes), and naturally make certain adjustments to our strategies and the way we look at options prices. For example, some institutions buy far out-of-the-money (OTM) puts as a hedge for a crash they don’t think will happen, but could.

Kurtosis may be foreign to you. But you do know that lurking big price changes surprise everyone, while you see institutions buying OTM options as hedges. In response, market makers increase the price of those OTM options, which in turn increases the options’ implied volatility (“vol”) or IV. Then you may see this flashing across your screen: “I’m sorry, the test for kurtosis suggests your distribution isn’t normal.” You’re skewed.

WHAT NOW?

In a Black-Scholes normal distribution world, a single vol input should accurately price all the options on a stock or index. But market makers, with their intuitive knowledge of kurtosis, set the prices of the OTM options higher than the theoretical value of

the single vol Black- Scholes model.

Consider this: If the **at-the-money** (ATM) IV for a \$100 stock is 25%, and you use that 25% to price the options with 60 days to expiration at the 90 strike, the 90 put would have a theoretical value of 0.72. But say that put's market price is 1.20. That would make its implied vol 30%. That higher implied vol is a signal of how likely the market considers a large potential price change for the stock. If the market doesn't anticipate larger price changes—up or down—the further OTM options have lower values and lower implied vols. If the market anticipates larger price changes, like it might around earnings or a news event, the further OTM options have higher values and higher implied vols. Kurtosis is why we see implied vol skew.

In fact, the story goes that implied vol skew was born during the '87 crash. Before that, market makers were cool with pricing a stock's or index's options with a single vol. Why? Most of those guys weren't around in 1929, and hadn't seen the market drop that much in a single day. Then Black Monday happened, wiped out a whole bunch of traders, and taught the survivors about the potentially higher frequency of large price drops. Since then, OTM options have had higher implied vols because traders understand that a crash could happen at any time and naturally price those options higher.

To see the impact of kurtosis on options in action, go to the **Trade** tab on your thinkorswim® platform by TD Ameritrade and look at equidistant OTM calls and puts in the same expiration (Figure 2). For example, if the stock is \$100, look at the 90 puts and 110 calls. If you see the 90 puts trading for 1.10, and the

110 calls trading for 1.00, that suggests the market anticipates the stock is somewhat more likely to have a 10-point drop than a 10-point rally. The market expects the distribution of returns could have a slightly fatter tail on the downside.

Alternatively, if the 90 puts were \$1.50, and the 110 calls \$1, this suggests the market's fear of a \$10 drop is higher than the expectation the stock could rise \$10. In this case, the market expects the kurtosis—deviation from the normal distribution—to potentially be much larger. The downside tail would be expected to be fatter than the upside tail.

Just because OTM options are often priced to reflect what the market anticipates doesn't mean that bad news always, or necessarily, happens. On the other hand, if options prices indicate the market is calm and no large price changes are expected, just remember the market often has a mind of its own. Stay alert. Normal is often a mirage.

So, the expectation of kurtosis in the distribution of stock returns and indices can boost the relative theoretical values of OTM options. And that can help guide your choice of strategy. As a trader, you might be tempted to sell those naked options short, believing this “kurtosis” thing won't happen to you. If you make that mistake, you could lose your entire account value. Look at 2008. That was a big drop that placed historical market data miles from a nice, clean normal distribution.

That's why using defined-risk verticals when you see higher implied vols (that is, bigger expected kurtosis) could be a smarter

choice, albeit with a higher commission. If you're bullish, for example, and you see much higher implied vol for OTM puts, a **short put vertical** that's short an OTM put and long a further OTM put, can still take advantage of the elevated put prices. But its defined-risk nature—max risk being the difference between the strikes minus the credit received—means that even if the market crashes, the loss, while bad, is not necessarily devastating.

KEEP 'EM SMALL

So, you begin to understand that larger, unforeseen (aka “black swan”) price changes could wipe you out. But suppose you still want to sell naked options. Consider selling further OTM options to give the stock or index more room to drop or rise before it passes the breakeven point of the short options. Yes, you'll have a smaller potential profit selling a further OTM option, regardless of its implied vol. But that extra amount OTM could give you some cushion. Remember, though, it only takes one big price change to cause catastrophic losses on **short naked options**. Keep these positions small and monitor them closely.

Kurtosis sounds like a scary virus, but it's just fancy market geek-speak for something that, at times, could be quite revealing regarding market data. Don't worry too much about theories and formulas and the numerical kurtosis. Focus on seeing hard evidence before you put on an options trade, and adjust your strategy thoughtfully. Your doc may not give you amazing news, but you likely have recourse. As always, don't doubt the messenger.

TRADER GLOSSARY
TURN TO
PAGE 36

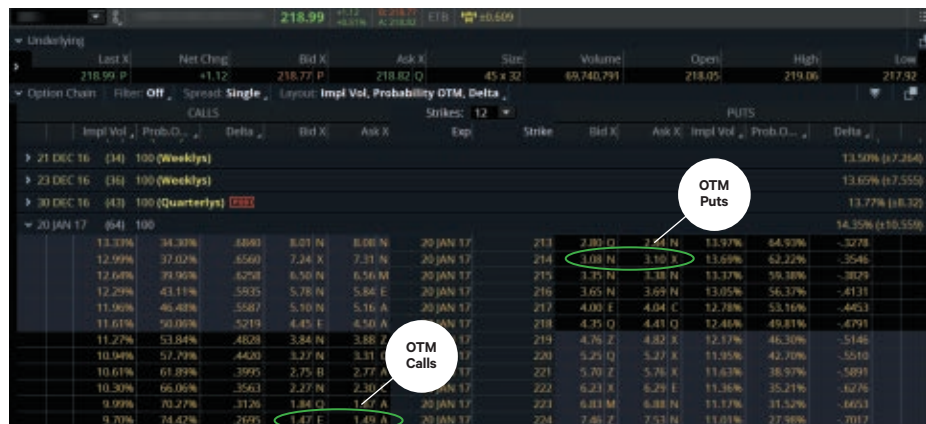


FIGURE 2: How skewed are you? Look at OTM puts and calls that are the same distance away from the stock price to compare the difference in their prices. If the difference is big it's not a normal distribution. It could be kurtosis and skew. Source: thinkorswim by TD Ameritrade. For illustrative purposes only.

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

Thomas 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.

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



BIG IDEA: YOU HAVE A STRONG DIRECTIONAL BIAS ON A STOCK, TIME TO EXPIRATION IS SHORT, AND YOU WANT TO SQUEEZE AS MUCH AS YOU CAN OUT OF YOUR POSITION. THE UNBALANCED FLY MAY BE THE WAY TO GO.

WORDS BY **KEVIN LUND**
PHOTOGRAPH BY **FREDRIK BRODÉN**

THE UNBALANCED BUTTERFLY: TILTING THE ODDS

● PRO / TAKE AWAY: *How to tweak a butterfly when markets lean slightly in one direction.*

YOU'RE ON YOUR WAY

to the airport to catch a flight when the inevitable happens. You're stuck in traffic. Your anxiety level elevates and your mind starts racing. Do you take an alternate route, stick with the slow traffic, or let it go and be content with missing your flight? As an options trader, you know the value of time. When your contracts' expiration date gets closer and your positions aren't doing much, do you let them expire worthless, or do you modify your positions? Unlike a traffic snarl, with the market you have more choices.

One strategy to consider is the unbalanced butterfly. Perhaps you're already familiar with the butterfly and iron condor. And you may have heard they can in fact be "unbalanced." But what makes them that way? How does it change the strategy? And how do you manage them?

FIRST, THE FLY: REMEMBERED

To refresh, a butterfly combines a long **vertical spread** and a short vertical spread assuming the following conditions:

- The options are the same type (all calls or all puts).
- Each of the vertical spreads must have the same distance between strikes.
- The short option in the long spread and the short option in the short spread must share the same strike.
- All options must have the same expiration date.

Put this all together, and your profit curve will look like Figure 1.

Because the two spreads in the butterfly share the same short strike, it follows that the spread you buy is always more expensive than the spread you sell. Therefore, the trade is always put up for a net debit.

Yet, there can be two problems inherent to the butterfly. First, because it is a three-legged trade, commissions can be much greater than with other strategies, making it potentially expensive. Second, it's often

difficult to pinpoint a max profit because it can only be reached at one price, which is highly improbable. This is where an unbalanced butterfly may help.

UNBALANCED: BUTTERFLIES FOR CREDITS

Rather than place a trade for a net debit, the unbalanced butterfly allows you to modify the original trade so you can place it for a net credit. Then, if the trade doesn't work out, there's a chance you'll still get to keep that credit for your troubles.

Unbalanced butterflies include an extra short call or put vertical, even though you may not see it. They're sold at the strike furthest **out-of-the-money** (OTM) and the goal is to sell enough premium in the second vertical to place the trade for a credit. Now you've increased the potential profit, but you've also increased the risk. And, you've added a vertical layer you need to monitor and manage.

Your new profit curve would look like the trade in Figure 2.

WHAT'S THE CATCH?

Unlike the standard butterfly where your

maximum loss is limited to the debit you paid, with an unbalanced butterfly, your risk is limited, but possibly much greater than that small debit. To illustrate, consider the following example:

Suppose you're looking at OTM butterfly trades on stock XYZ, currently trading at

1/ START	2 /ADD	3/ RESULT
One long 100 put		One long 100 put
Short two 95 puts		Short two 95 puts
One long 90 put	One short 90 put	
	One long 85 put	One long 85 put

\$115 per share. Maybe you're bearish and think there's a good chance the stock can settle around \$95 per share at expiration. So you decide to buy the 100-95-90 put butterfly expiring in about two months.

Suppose you can place this trade for a seven-cent debit, excluding commissions. That may not sound like much. But then again, you're asking for a price target \$20 away from the current stock price. While the planets may align for you, and the stock could land at \$95 at expiration, the more likely outcome is that the trading gods will keep your seven cents and leave you with nothing.

What if you modify your trade from a net debit to a net credit? Instead of trading the 100-95-90 put fly, you "skip" a strike, and trade the 100-95-85? Turns out the trade can in fact be placed for a net credit of two cents, excluding commissions. This may not seem like a big deal. But for a trade that has a high probability of not realizing its maximum profit potential, getting your two cents' worth may be a decent compromise.



COOL INFO: Directional Fly Trap

Note that when you use butterflies as directional trades, you typically want to trade call butterflies when you're bullish and put butterflies when you're bearish. While call and put butterflies having the same strikes and expiration are pretty much the same trade, the bid-ask spread can be far more favorable in the out-of-the-money flies.

Even if you put on the unbalanced butterfly as one trade, it's helpful to look at it as a butterfly plus a short vertical. That way, you can monitor the price of that extra short vertical, potentially buy it back for a profit, and leave the butterfly on.

Remember your original trade was the 100-95-90 put butterfly. That trade can be broken down into one

long 100-95 put vertical and one short 95-90 long 100 put, two short 95 puts, and one long 90 put.

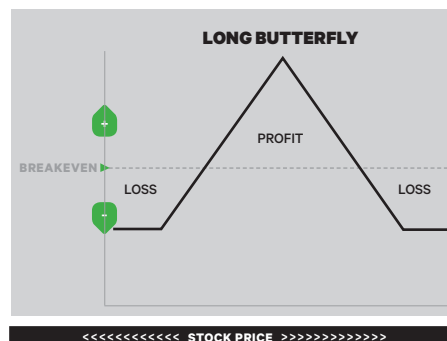


FIGURE 1: Classic Long Butterfly. Nothing fancy here but a combination of a long vertical spread and short vertical spread of the same type. Great for sideways markets, but tough for traders to pinpoint a profit zone. For illustrative purposes only.

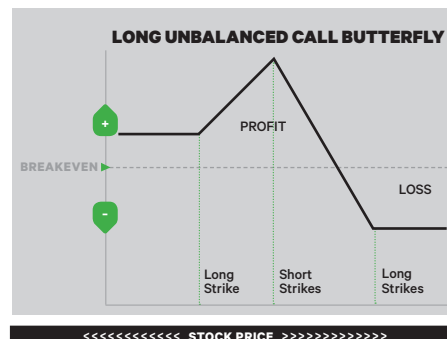


FIGURE 2: See? It's Tilted. Adding that extra vertical layer shifted the risk curve of the long butterfly. There's potentially more risk along with greater profit potential. For illustrative purposes only.

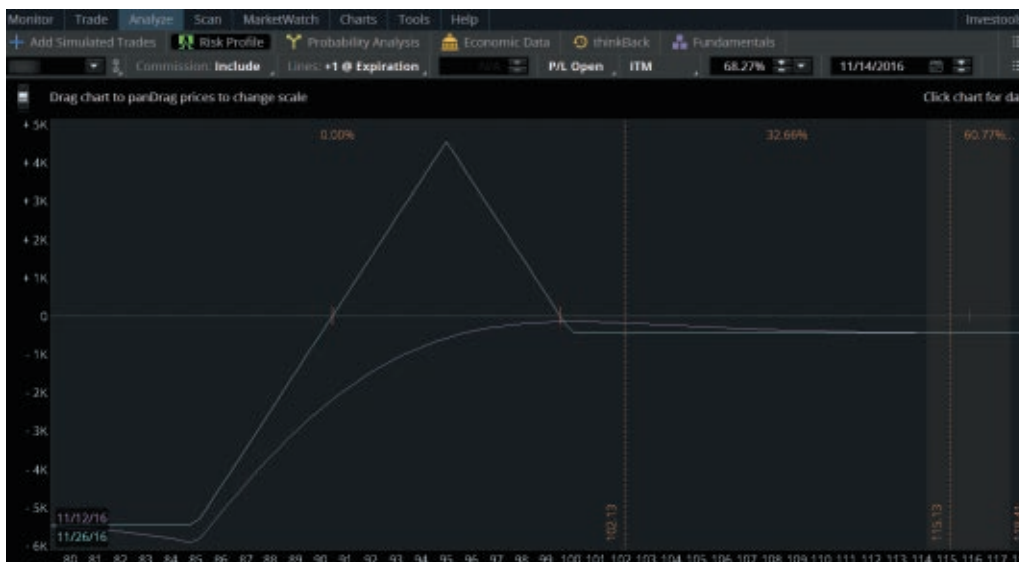


FIGURE 3: Risk Profile of Unbalanced Fly. Your risk increases, but the stock price has to go down by about \$30 for your position to suffer its maximum loss. Source: thinkorswim by TD Ameritrade. For illustrative purposes only.

To create the 100-95-85 unbalanced butterfly, you add a short 90-85 put spread (said another way, you sell a 90-85 put spread).

Here's how the math works out: Notice how the long 90 put and the short 90 put cancel each other out? You now have an unbalanced butterfly, in which the two long strikes are no longer the same distance from the center strike. The furthest OTM option, the 85 put, is less expensive than the 90 put you used to be long. Because you didn't pay as much for the furthest-out long option (often referred to as the "tail"), those savings were passed on to the cost of your trade, leaving you with a net credit.

THERE'S JUST ONE THING ...

By moving your furthest OTM strike \$5 further out, you've created a gap in your protection. Your trade can now lose more than the entry price. In this case, your trade still has limited risk, but while the risk in your original butterfly was limited to the seven-cent debit, the risk in your new unbalanced butterfly is limited to the extra \$5 of difference in strikes that you added, less the two-cent credit, for a total potential risk of \$4.98.

That may seem like a large change. But if you look Figure 3, you'll see that the stock would have to drop from \$115 (its present price) to \$85 per share or lower to realize a max loss. You can see the risk profile of your unbalanced butterfly on the thinkorswim® platform by TD Ameritrade from the **Analyze** tab. Create a simulated unbalanced butterfly trade, then click on **Risk Profile**.

MANAGING THE EMBEDDED VERTICAL SPREAD

At some point, you may decide it's no longer worth having the additional downside risk created by an unbalanced butterfly. As time passes, if the stock doesn't drop below \$90 per share, time decay (theta) works in your favor. If the 90 puts and the 85 puts are still fairly OTM, you may find that both options are close to worthless.

At this point, you may opt to buy back that 90-85 put spread that is embedded in your trade for a profit. That would bring you back

to a 100-95-90 butterfly, and your overall risk would be considerably reduced. Alternatively, if the 90 and 85 puts are near worthless, you may simply buy back the 90 put. This would have the same effect of limiting your risk, except you'd still be long the 85 put as a sort of lottery ticket.

THE FUTURE: FLYING CARS

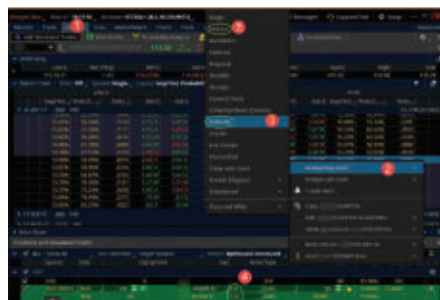
Unbalanced butterflies can change the landscape for traders looking to shift risk further away from a prevailing stock price. You may decide you need a trade with more or less time to expiration. You may seek a considerably larger net credit. This is all part of knowing your style, and trading within your comfort level.

As you continue to grow as a trader, you may want to explore unbalanced trades where you change the ratio, rather than the difference between the strikes. For example, instead of a butterfly with a 1-2-1 ratio, you may decide to sell a vertical spread using the option strikes already within your trade. This may change your trade ratio from a 1-2-1 to, say, a 1-3-2. Finally, if you're more of an **iron condor** trader, you may want to consider unbalanced condor trades. The possibilities are endless, but at least now you know where to begin. And take road rage out of your options.

HOW TO FLY WITH BROKEN WINGS

A 3-2-1 unbalanced fly is different from an unbalanced fly where you "skip" a strike. Here's how to place the skipped strike fly on the thinkorswim platform.

1. Start from the **Analyze** tab and add a simulated trade.
2. Right-click on the option chain and select **Analyze buy or sell trade**.
3. Select **Butterfly** to place a regular butterfly trade. Then add a vertical.
4. Change the strike prices for the butterfly and vertical before placing the order.



Source: thinkorswim by TD Ameritrade. For illustrative purposes only.

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



Options stats, STAT.

With the Options Statistics tool in the thinkorswim® platform, you can pinpoint potential trends in real time with the help of key market segment indicators like the Put/Call ratio and Implied Volatility percentile. So you can see where the market may be headed, and seize potential opportunities.



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Getting It Right

THIS GEOGRAPHICAL GENIUS KEEPS HIS EYE ON WHAT KEEPS YOUR TRADING PLATFORM CHURNING.

Illustration by Joe Morse

• HE MAY NOT KNOW whether he's in Chicago or Calcutta. Or whether it's time for lunch or dinner. But Brad Nave, Manager, Trader Production Support at TD Ameritrade, makes sure the data you see on your trading platform is up to date and accurate. He doesn't miss a beat, and for good reason. His mind is constantly on the go and he can be as alert as a cougar in the middle of the night, in a country far, far away. —Interview by JAYANTHI GOPALAKRISHNAN



1

Brad, you're constantly monitoring data for active traders. Give us a snapshot of what you do.

I oversee production support for the TD Ameritrade active trader platforms. My team's biggest responsibility is monitoring the performance, stability, and maintenance of thinkor-swim®, Mobile Trader, and thinkpipes®. Naturally, my team and I also need to be aware of how any changes outside these applications could impact trading pathways for any of these platforms.

Production problems can have me up at odd hours, so to keep my mind active I like to trade forex.

2

Sounds like you work around the clock.

The futures and forex markets make us sensitive to changes that take place during the night. So, yes, if you have a 24/5.5 trading platform, you're always on call. For me it's better to be safe than sorry. If a problem arises, I'd never want to ignore it because it could manifest into something bigger. And that's a problem I wouldn't want to deal with. I'd rather avoid it and solve it.

3

What's a typical workday?

In general, my team and I track of all our external connections and make sure those connections are stable. I'm involved with planning, and have all the various steps documented and outlined, so any changes are seamless and painless for our clients. It's not a perfect world. I can always expect pain. So my goal is to identify a problem immediately. Timing is everything. And from the start, we focus on service restoration.

4

You like to trade, so you know the importance of a stable platform.

How do you approach the markets?

I prefer to trade forex, and when I look at a forex pair, I think of it as a comparison of the relative strengths of each individual currency. I consider recent trends on each side of the currency pair or cross. I analyze which currency is doing "more better or less worse" than the other, even if both are not so strong to begin with. And if I'm not trading forex, I like to trade stocks or options of companies whose products I use. That gives me more confidence in my investments.

5

Does your interest in forex have anything to do with your being a geography whiz?

I loved geography when I was growing up and that grew into my love for macroeconomics. I was always interested in global trade. I competed in geography bees, and my Christmas gift each year was a new atlas.



WHEN THE MARKET CALLS, ANSWER IT.

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Our Mobile Trader app lets you set custom alerts to monitor your watch lists and positions, and sends live updates straight to your devices. Of course, whether or not you decide to check your devices is up to you.

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The #1 trading app accolade applies to thinkorswim® mobile, also known as TD Ameritrade Mobile Trader.
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Enter and Exit...With Attitude

RANDOM DECISIONS LEAD TO RANDOM RESULTS. CONSIDER USING THESE TWO INDICATORS MORE CONSISTENTLY AS YOU GET IN AND OUT OF TRADES.

● EASY / **TAKE AWAY:** *Pearls from your favorite Investools® instructors*



• “BUY LOW, SELL HIGH.” You’ve heard this phrase a million times. It’s so wired into your brain, it seems easy to determine where a stock’s high and low points are. In reality, to find appropriate and consistent entries (lows) and exits (highs) might just be one of the hardest skills to master. The good news? There are different techniques you can use to find the potential entry/exit spots. One is to identify a stock’s support and resistance levels. It may sound easy, but it’s something Investools students need help with all the time and a reason they rely on our instructors to help them practice applying the concept.

HOW LOW CAN YOU GO?

Think of support and resistance levels respectively as floors and ceilings. A stock can drop until it falls to its natural floor and bounces. Prices can then rise until the stock reaches a natural ceiling and its progress halts. This all sounds good in theory. But bring up a chart to find these levels and you’ll be scratching your head. There are so many ups and downs, it gets hard to choose which one is the floor, and which one is just a step down the stairs, so to speak. This confusion is why figuring out a bullish position’s entry can be tough. How many times have you identified a stock that has “pulled back” and thought to yourself it’s the perfect time for the stock to bounce, only to see it continue a pullback?

IT’S ALL IN YOUR HEAD

Support and resistance may sound like geeky technical terms for reading stock charts, but their existence is deeply rooted in investor

psychology. Eventually a stock falls far enough so buyers are ready to overcome the stock’s sellers. It’s possible investors saw the stock previously bounce at these levels several times in the recent past. Or, maybe they noticed the stock had broken through those levels multiple times and then pulled back to those old highs. As more people see the same price levels, it attracts more interest. And, *voilà*. Support is formed. It’s not magical, but simply a reflection of demand. This becomes a level where buyers overwhelmed the stock’s sellers. The opposite is true for resistance when sellers overwhelm the buyers. So, how can you identify these support and resistance levels?

THE POWER OF TWO

One approach is to use multiple technical indicators together like, for example, the MACD histogram and the stochastic (see Figure 1). Stocks move up or down, but how far down is low enough to qualify as a support level? It could be when both indicators fall below their respective charts’ midpoints, and turn higher. Then, you look at the corresponding price level for the stock and see if it is at or above its prior low point. If so, you may have a new support level that can be used for a possible entry signal. As the stock rises and both indicators climb above their charts’ midpoints, new resistance levels may be formed, especially if it’s in an area where the stock has peaked before. These levels may also be used for exits.

Using two indicators together helps to smooth out random ups and downs and provide some consistency. You can use this kind of analysis on daily charts for intermediate trend trades with stocks, or on smaller time frames for short-term positions, like options trades.

BE PREPARED

It’s not about randomly identifying entries and exits for new positions. It’s about building a repeatable process using multiple technical indicators to identify common support and resistance levels. And keep in mind other approaches, including fundamental analysis, may assert very different views. Have other questions? Drop a line to thinkmoney@tdameritrade.com so we can answer them in the next Coach’s Corner column.

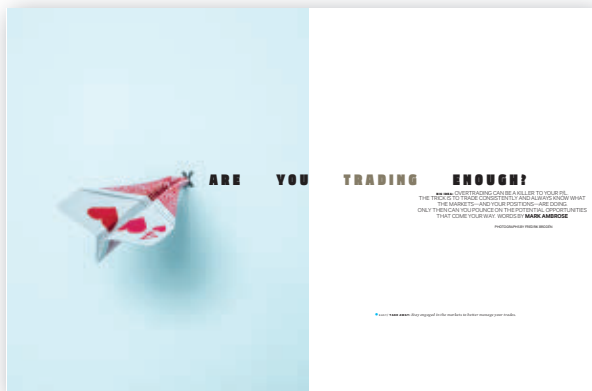
—Words by DAVID SETTLE, CMT, INVESTTOOLS®

FIGURE 1:
How to find support and resistance.

Note that when both MACD and stochastic indicators agree that a high or low has been reached, and price is at a previous high or low point, it’s a stronger signal that a support or resistance level has been formed.

Source: TD Ameritrade. For illustrative purposes only.

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Iron condor

PAGE 18, 31

• 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.

At the Money (ATM)

PAGE 11, 27

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.

Covered Calls

PAGE 18

A limited-reward strategy constructed of long stock and a short call. Ideally, you want the stock to finish at or above the call strike at expiration, in which case, you’d have your stock “called away” at the short call strike. In this case, you would keep your original credit from the sale of the call as well as any gain in the stock up to the strike. Breakeven on the trade is the stock price you paid minus the credit from the call.

Short Naked Options

PAGE 19, 27

A short option position that is not fully collateralized if notification of assignment is received. A short call position is uncovered if the writer does not have a long stock or long call position. A short put position is uncovered if the writer is not short stock or long another put.

Out of the Money (OTM)

PAGE 11, 26, 30

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.

Implied Volatility

PAGE 26

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

Short Call Vertical

PAGE 18, 22

A defined-risk, directional spread strategy, composed of an equal number of short (sold) and long (bought) calls 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. 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 or when both options expire worthless. Breakeven

is calculated by adding the credit received to the lower (short) call strike.

Short Put Vertical

PAGE 27

A defined-risk, directional spread strategy, composed of an equal number of short (sold) and long (bought) puts in which the credit from the short strike is greater than the debit of the long strike, resulting in a net credit. 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 or when both options expire worthless. Breakeven is calculated by subtracting the credit received from the higher (short) put strike.

Vertical Spread

PAGE 18, 30

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, while short verticals are sold for a credit at the onset of the trade. Long call and short put verticals are bullish, whereas long put and short call verticals are bearish. The risk of a long vertical is typically limited to the debit of the trade, while the risk in the short vertical is typically limited to the difference between the short and long strikes, less the credit.

CBOE Volatility Index (VIX)

PAGE 11

The de facto market volatility index used to measure the implied volatility of S&P 500 Index options. Otherwise known to the public as the “fear index,” it is most often used to gauge the level of fear or complacency in a market over a specified period of time. Typically, as option buying activity increases, option premiums on the S&P 500 Index increase, which is reflected in a higher value for VIX. As the VIX declines, option buying activity decreases.

Long straddle

PAGE 14

A market neutral, defined risk position, composed of an equal number of long calls and puts of the same strike price. The strategy assumes the market will break out one way or another, in which case, a profit occurs when one side of the trade gains more than the other side loses. Breakeven points are calculated by adding and subtracting the total debit to and from the strike price of the options.

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 accounts are not protected by the Securities Investor Protection Corporation (SIPC). Futures and futures options trading services provided by TD Ameritrade Futures & Forex LLC. Trading privileges subject to review and approval. Not all clients will qualify.

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>).



Research Shows Trading Increases Muscle Mass Without Diet Or Exercise

The IARI announces that online trading can produce similar effects as anabolic steroids.

thinkorswim press

New York, NY: With pool and beach weather just around the corner, many of us are looking to do a bit of physical fine-tuning with diet and exercise. But the esteemed Dr. S.X. Pak of the IARI (International Abs Research Institute) has made a startling discovery: Trading can actually increase lean muscle mass while shrinking adipose tissue. "While conducting clinical trials comparing traders' brains to stimulant-injected lab rats, we found that traders became leaner and more able to run on the 20-foot hamster wheel 30% longer ... all while maintaining a diet composed primarily of French desserts and encased meats," Dr. Pak said.

Said one study participant, "I feel like I'm 18 again! I put on some verticals, callendar, covered calls, and I'm benching 225 for the first time at the gym." Said another, a 70-year-old grandmother and index option trader: "I went to my monthly investment club meeting and it broke out into an arm-wrestling contest. Everyone was wearing muscle tees. In February. In Minnesota."

Although the neural pathways between

the brain's anterior volatiles and the myofibrils that can create quick-onset hypertrophy have yet to be mapped, the tentative results are promising. "We will soon release our stimulated rats into the wild and focus our work on traders," explained Pak. "This could not only transform America's finances, but also potentially improve our country's standing in the international squat and deadlift competitions. And to think this can be achieved without anabolic steroids. Futures are bright indeed."

Officials at the U.S. Flavor and Fat Administration were quick to offer warnings. "Excess trading can not only increase personal financial risk and commission costs, but side effects can include Wi-Fi hogging, hair loss, and increased aggression, particularly when experiencing losses," said one anonymous USFFA scientist who also admitted to managing her portfolio personally.

On the bright side, traders may finally be able to enjoy summer outdoors without being mistaken for a pallet of butter, and justify spending more time with their trading platform instead of fretting about their waistlines. Offered the Minnesota grandmother: "A couple more expirations, and bikini store, here I come!"



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