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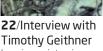
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#### tep#

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Chart your option theories with thinkBack and follow the leader with MyTrade, our social trading tool.

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edit.

Give 'Em What **They Want** 

Good things may come in small packages, but who doesn't love all-vou-can eat buffets, huh? The bottomless salad bar, the endless concoctions of chicken, beef, and pasta—and don't even get us started on the dessert table. Now, given the choice, are you a one-trip person who piles a mountain of food on a single plate, do you grab two plates, or do you create modest servings on a single plate and take multiple trips? (Stay with us here.)

Now, we don't need to bore you with the numbers, but so long as you haven't been sleeping under a rock, you're probably aware that everything from John Thain's famous trash can to bankrupt insur-

ance companies have rallied off of the March lows. But like that guy who bites off more than he can chew, sometimes it's hard to know when to quit and just let things settle in a little. Sure, those baby back ribs you meant to grab on the last round look tempting, but if you forgot to pack your Zantac, you're in for a rude awakening—and you know it.

No, we're not about to start predicting a market direction one way or the other. But it's worth noting that while it's a neat trick to be able to call market bottoms and trade with a rear-view mirror, it's probably a better idea to develop a trading system that works in any market, has a high probability of success, keeps you from getting suckered into trades that look too good to be true, and won't blow you up when you're wrong. Call it a high-level view of such a system,

but that's what we're attempting to give you with this issue. After all, good times come and go, bellies get full, and eventually, the restaurant is going to kick you out.

> Happy Trading! TOS

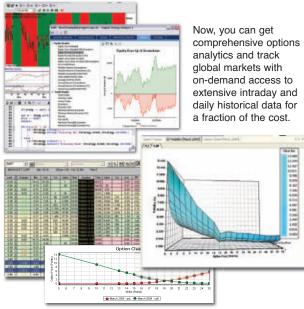


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Words by **Mark Ambrose** Photograph by **Fredrik Brodén** 

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For an exclusive thinkMoney discussion on the five strategies discussed in this article, please go to thinkorswim.com/ thinkmoney.

YOU MIGHT THINK THAT THE MAIN DIFFERENCE BETWEEN most retail traders and professionals is the amount of cash they've got to work with. Sure, some professionals manage a lot of money. But the real difference is in their approach. Even when working with just \$1,000, a professional trader is likely to manage the money differently, and maybe more successfully, than the average retail trader. Why? It's all about knowledge and attitude.

Professional traders know trading strategies that don't use up too much capital, have probabilities on their side, and have defined risk. Professional traders are also confident in their approach. They have made money before, and know that they can do it again. Their attitude is a mixture of confidence in their knowledge and respect for the market. Nobody makes money on every trade. Losers happen. Professionals know that, but it doesn't stop them.

With just \$1,000 of capital to work with, the average retail trader may just stick the whole thing in a mutual fund and cross his fingers. Or he might decide to take a shot and buy some cheap out-of-the-money calls in some stocks he heard mentioned on TV. Those strategies may even make money... or not. But with the mutual fund, our trader is placing blind confidence in an unknown money manager, or in his hopes that the US market will go up eventually. With the out-of-the-money calls, he is asking to learn the hard lessons that the market has to teach the unknowledgeable trader.

A professional trader looks at that \$1,000 and sees an opportunity to execute the same type of game plan she might use with a much larger amount of capital. In fact, with just \$1,000, you can put on five trades that professionals use.

#### DIFFERENT TRADES, SAME CRITERIA

All of these trades have three things in common: defined risk, positive time decay, and a better than 50/50 estimated probability of making money. Defined risk means you know how much you can lose in the worst-case scenario even before you put the trade on. Positive time decay means

that time is working on your side. As days pass, and all other things stay equal, the position will theoretically make money. The high probability means that you don't have to be exactly right on what you think the stock or index might do to make money.

How did I know when I was a professional trader? When the index didn't do what I thought it would, and I still made money.

So, how does a pro find these trades? One way is to start with index ETFs. Their options are liquid, and most have single-point strikes to let you carefully control risk. Next, look for the options expiration that is closest to one month out—about 30 days. That's a good balance between the rate of time decay and the actual option premium that can be collected. Now, look to sell an option that has about a 60% to 70% chance of expiring worthless. Finally, hedge that option with a further out-of-themoney option (to create a vertical) or with a further expiration date (to create a calendar). That's it. No magic. No secret indicators. No screaming into the phone with sleeves rolled up or macho chest thumping. And now, here are the five professional trades. Drum roll, please...

#### THE SHORT VERTICAL

Bullish on the market? No? Then how about thinking the market won't crash? If I were certain that the market would go up (and I never am), I'd just buy futures. But as a professional trader, I know I can't predict the market's direction with certainty. I have to think about what would happen if I'm wrong. I could buy a call or SPY shares, and if the market does as I hope, I could make money. If I'm wrong, though, and the market drops or even sits still, both those trades lose.

Painting with a very broad brush, the market can go up, down, or stay where it is. Long calls and long stock or futures lose in two of those three scenarios. But a short out-of-the-money put vertical can make money if the market goes up, stays the same, or even drops a bit—as long as the stock or index is above the short strike at expiration. The short put vertical can make money in two of the three scenarios. That puts the odds on my side.

How does it work? Take, for example, the SPY—with SPY trading at 91 at the time of this writing, selling the July 87 put and buying the July 86 put as a hedge creates a short put vertical for a 0.28 credit. The max profit is \$28, the max loss is \$72, and the breakeven point is \$86.72 on SPY. It has a probability of success of 70%. The position will be profitable at expiration if the SPY goes up, stays the same, or drops a little. That takes a lot of the pressure to be right about the direction of the market off of you. Capital used: \$72.

#### 2 THE IRON CONDOR

Think oil might trade in a range? How about an iron condor in the XLE (the oil sector ETF)? Range-bound trading can suck the premium right out of options—which means you typically want to short them. But because oil might possibly make a big move either up or down, you don't



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want to sell options naked (without a hedge). Selling an iron condor that makes money if oil stays in a range is one way a pro might approach the trade.

An iron condor is simply a bearish bias trade (short call vertical) and a bullish bias trade (short put vertical) in the same expiration. Iron condors are good positions when you think that the marketplace might be overestimating the potential volatility of a stock, index, or future. When that happens, the values of the out-of-the-money verticals go up, which means you can sell an iron condor for a higher credit. High volatility is a sign of uncertainty, just as low volatility is a sign of complacency. An iron condor can be a defined-risk way of speculating that everyone else who thinks there will be a big move in oil is wrong, and that the fear is overstated. That said, it's nice to have the room in between the short strikes of the iron condor when vol is high, just in case. But don't go too far out of the money. Selling cheap iron condors is a great way to tie up a lot of trading capital for limited gain, which is not something I do. Sell iron condors with some "meat" on them, let them decay, and cover the short options in the last week or so before expiration. Leave the zero-bid long options as a lottery ticket.

Going back to the oil for a moment, let's say XLE is at \$50. Selling the July 53 call and buying the July 54 call creates a short call vertical, while selling the July 47 put and buying the July 46 put creates a short put vertical for a combined credit of 0.56. Together, they form the iron condor. With a max profit of \$56, max loss of \$44, and breakeven points \$46.44 and \$53.56, the trade will make money if the XLE doesn't go up or down too much before expiration. The probability of it landing in between the short strikes, the "sweet spot" of the iron condor, is 44%. Capital used: \$44.

#### 3 THE UNBALANCED BUTTERFLY

Bearish to neutral on small caps? Buying an unbalanced call butterfly on the IWM may go well with that dish. You think the index might go down, but not too much. And it might actually go up a bit. Well, you can take care of the "might go down, but not too much" part by selling a call vertical. But to get a little extra profit if the index stays where it is or rises a bit, you want a long butterfly. You can refer back to *thinkMoney/*03 for more details on this strategy, but in a nutshell, an unbalanced or skewed butterfly is a combination of a short call vertical plus a long call butterfly. Sell the vertical for a high-probability, positive time decay trade that gives you the directional bias, then use some of the credit to buy a butterfly just below it. That gives you extra profit potential if the stock stays near the middle strike of the trade.

The short vertical on our small-cap index, IWM, example is made up of a short IWM July 52 call and a long 53 call. The long butterfly is a long IWM July 50 call, two short July 51 calls, and a long July 52 calls. Notice that the long and short calls at the 52 strike overlap, and cancel one another out—rendering an "unbalanced" butterfly because the wings of the new spread are no longer the same distance from the short strikes. The combined credit in this example is 0.25. You can enter this spread as one order by simply changing the strikes in the order entry box of the TOS platform. The max profit is \$125, the max loss is \$75, and the breakeven point is \$52.25. The probability of success is about 68%, and the position makes money as long as the IWM doesn't rise above the breakeven point. Capital used: \$75.

When implied vol is high, it pushes up the values of outof-the-money verticals and pushes down the values of butterflies. Why? If the market thinks a big move is in the offing, traders will bid up the verticals, either as a hedge or pure speculation. And butterflies drop because they're like numbers on a roulette wheel. At expiration, there'll be one winning butterfly whose short strike is closest to where the stock or index settles. When the index might settle anywhere in a high vol environment, which butterfly will be the winner? Who knows. There's no reason to bid up the butterflies. Because they're relatively cheap, you can tack one on to the directional-bias, high-probability short vertical. Sure, you could just put on the short vertical by itself, but the butterfly can give the profit a nice boost if the index stays in a narrow range. Ideally, you can buy back the short embedded vertical for less than the credit you put on the unbalanced butterfly. In that scenario, you will be left with a butterfly for a net credit. As Martha Stewart would say, "It's a good thing."

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#### THE LONG CALENDAR

Bearish bias on the Dow Jones Industrials? Then consider a long put calendar on the DIA, the Dow ETF. Sell the DIA June 81 put and buy the DIA July 81 put for 0.97. When an index sells off, volatility typically goes up. And a pro knows that a long calendar spread has positive vega, which is option geek-speak for "helped by an increase in volatility." You have to read the article on roll values later in this issue ("Lip-Smackin' Good Rolls") to

really understand this one completely, but in short, the max risk is \$97, the max estimated profit is \$175, and the breakeven points are \$76 and \$86. The position works best if the DIA drops to \$81 close to expiration, but it can still be profitable if it is a couple points above or below that price. There is a 45% probability of the trade making money. Capital used: \$97.

Calendars maximize their profit if the index goes right to the short strike at expiration, but even if it doesn't, say within a couple points of the short strike if you're talking about the DIA, the rolls are still higher than what you paid for them. As opposed to something like a butterfly, which tends to be an all-or-nothing kind of trade, calendars give you a little more leeway. You never, or at most very rarely, nail the short strike at expiration. With calendars, you don't have to. Sure, it's nice to get close, but just as I don't have 100% confidence in the direction of the market, I don't have 100% confidence in the magnitude of the price change either. I make sure that I can at least cover my permonth cost of the calendar with the onemonth roll if I'm within 2 to 3 points in something like the DIA. Professional traders don't trade with surgical precision, and the folks searching for the "perfect" trade are what we typically call "analysts."

#### THE SHORT NAKED PUT

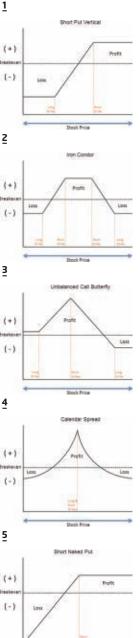
You think a good company has been beaten down too much (as in, it's now sitting in the single digits too much)? You are cautiously bullish on it, and wouldn't necessarily mind owning it at a slightly lower price. Let's consider a hypothetical tech stock (XYZ), trading at \$4.50. It might not be everyone's favorite, but it probably won't go out of business anytime soon. It's cheap, but instead of buying the stock, consider selling a naked short put. Naked put? Is that defined risk? Not in most cases, but when the stock is \$4.50, the max risk of selling the July 4 put is \$400—which means it pretty much acts like a short vertical, with 0 as the hedge. If we sell the 4 put for 0.35, the max

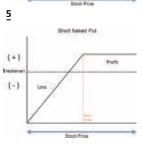
profit is \$35, and the breakeven point is \$3.65. The probability of the stock staying above \$4, which is what you want to have happen with a short put, is about 45%. But if the stock drops below the short put and you're assigned, you'll be long the stock at a cost basis of \$3.65. Capital used is \$365.

Short naked puts can have a lot of risk, no question. But keep in mind, we're not talking about monsterpriced stocks here. Regardless, for anyone who's thinking that it's too risky, keep in mind that a short

> out-of-the-money put is synthetically equivalent to long stock and a short in-the-money call. Covered calls are what Granny used to do before she hooked up with thinkorswim and started hedging. Covered calls, like short puts, have tremendous exposure to the downside.

> Would I sell a naked put in GOOG? No way—too far to fall. But on a cheap stock that I think might go up over time and that I wouldn't mind owning at the strike price of the put? Yes. It's all context. I also might not hold the short put until expiration. I can sell it, let it decay, and buy it back if the stock doesn't drop too much. And if it does and I'm assigned, I can use the resulting long stock and make like Granny and sell some calls against it, further reducing the cost basis.





Unlike a long call or put, the trades here have the same things in common: positive time decay, defined risk, and they probably won't break the bank.

#### ONE MORE THOUGHT

These five trades are created by using a relatively simple game plan that can be tweaked if necessary and followed as long as you care to. You won't turn \$1,000 into \$1,000,000, or \$100,000 ... and probably not even \$2,000, unless you keep at it for a while. But you probably won't lose everything, either. Learning how to trade means learning to survive first. Trading conservative option strategies with defined risk, positive time decay, and better than 50/50 probabilities of success can help you get started on the right path and let you avoid the mistakes that too often spell disaster for rookie traders. Each of these five trades typically requires far less than \$1,000 in capital. That leaves enough for two slices of pepperoni and a 20 oz soda. Hey, not only can you trade like a pro, you can now eat like one, too!





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#### **Dear Swim**

•

A collection of your best love notes to the Trading Desk.

Photograph by

Fredrik Brodén

•Today I received an IB flyer from one of our customers. I must say, please thank the powers that be who finally recognized us as a competitor. Very flattering. However, can you also make sure the person responsible can pass a spelling test. This person spelled thinkorswim as "thinkorsmim."

#### **Don Roberts**

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• Just got my monkey—my dog likes him. Might not last very long, though. He likes to play rough. He thanks you for the monkey as well.

#### **Chris**

• Regarding the use of TOS trading platform, is there a function that enables shares to be sold automatically at the market's highest price for the day?

#### **Phillip**

• Can you have a broker tell me what the float on JNJ is and how much it will cost me to buy 51% of their voting stock even if 51% of it isn't floating?

Ben



• The \$39.95 rebate you offer for 40 trades/month. Is that for real money only? Do you offer this for the paper money?

#### Henry

• I asked to borrow 225 shares of FAS yesterday for short sale at 5.55 and you turned me down because my account isn't at the 2K requirement ... I needed this short to get me going again. I only have \$1,000 in my account. I hate you guys! FAS closed at 4.87 today. Sincerely,

#### Matt

• I assume you saw some of the Jim Cramer–Jon Stewart funfest this past week. I was a little



Got a quip? Send us your best at editor@thinkmoneymag.com.

•

The comments above are excerpts of e-mails submitted by thinkorswim, Inc. clients as their views and may not reflect those of thinkorswim, Inc. Testimonials may not be representative of the experience of other clients and are no guarantees of future performance or success.

worried when he showed the Money Monkey. For a moment, I thought it might be JJ [Kinahan]

#### Lori

• These are precisely the type of emails I'm fully expecting to be ripped of their charm and whimsy when the TD Ameritrade acquisition goes through. Don't do it!

#### **Chris**

• You Americans are insane workaholics.

#### Andrei

• Regarding Sol: Please let management know that I have lodged an official complaint to get your cute picture back up there!

#### Vince

• How do I find something called "the evil empire"?

#### Hank

#### We Goofed:

We're not sure if it was the monkey spiking the punch at the staff party that was to blame, but our "Option Trading Calendar 2009" in the thinkMoney/04 issue had a couple of errors. The trading holiday marked "June 3" is actually July 3, and the events in August were offset by a day. Feel free to go download the, ahem, "new and improved version" of the calendar online. in the same issue, now at thinkorswim.com/thinkmoney. Our apologies.

#### Volatility Watch

Analyzing the markets through the eyes of volatility-sans charts.

•One of the questions I get a lot is, "What is the difference is between historical volatility and implied volatility, and which is more useful for trading?" With markets all over the world trading with unprecedented volatility, customers are trying to find some indicator that will give them a clue about how much some index might move in the next month or two. It's not so much which way. It's how much sav, 5%? 25%?

Now, there is no way to predict which way an index or stock will move, or the magnitude of the price change, with certainty. We're only trying to make our trading decisions more informed, as opposed to just hoping and guessing. Many traders use historical and implied volatility to estimate the potential magnitude of future price changes.

Historical volatility measures percentage price changes in the index over a certain number of previous trading days, such as the past 10, 30, or 90 days. Using different numbers of days can give you very different historical volatilities. So, how many days should you pick? That's impossible to answer for certain, but you might want to start by using the same number of days as the time frame of your trade. Do you sell verticals with 30 days to expiration? Then you might want to look at a 30-day historical vol. But the bottom line is that historical volatility is backward looking. Remember, it only considers what the index has already done, and doesn't consider anything about what might happen.

Implied volatility is derived from option prices. When plugged into a theoretical option pricing model, it makes the theoretical option

Words by Thomas Preston Photograph by Fredrik Brodén



**Great Debate** 

Two kinds of volatility can give you a hint to the market's movement. Which is right for you?

price equal to the current option price. A different pricing model can give you a different implied vol, but as long as you're consistent with the model you choose, you won't have problems. (TOS uses the Bjerksund-Stensland model for American-style options, and the Black-Scholes model for European-style options.) A volatility index, like the CBOE's VIX or the Vol Index on TOS, generates an implied vol without using a theoretical pricing model. This is good for getting an overall implied vol level for a stock or index, rather than a vol for a single option.

In either case, the important thing about implied vol is that it is forward-looking. It considers only the current option prices in its calculation. When traders are nervous and see uncertainty in the market, they start buying options, which pushes up their value, which in turn pushes up the implied vol. The opposite is true when traders are complacent, Implied vols drop in that case. So, implied vol can indicate whether the marketplace is nervous or

complacent about future index price changes.

Which should you use? Again, that's impossible to answer because each trader is different, and no one indicator is perfect. But I did a quick little study to see if I could find any evidence that historical vol was better than implied vol at predicting future market price volatility. By analyzing two vears of month-to-month price changes in the SPX and calculating future monthly ranges based on both vol numbers, I found that historical volunderestimated future monthly price changes in three of the months, and implied vol underestimated only once. At least this suggests that using either one is better than guessing! Interestingly, the ranges predicted by the implied vol came closer to the actual range of the index compared to historical vol. This can be a problem with historical vol-for example, when you might be hoping for a big move that never materializes.

SO, WITH THE VIX TRADING in the low 30s, and 80 in the rearview mirror, what is volatility telling us now? Call it complacent fear, for a lack of a better term. Read: the fear is

still there, just not as much. Yes, the news is bad. Employment is bad. Credit is bad. Baby Boomers are selling fourth homes in Colorado to pay for the third in Florida. But we already knew that. What markets don't like are surprises. And in the face of what we've already seen, if another shoe drops, the VIX is pretty much saying, "Been there. Done that."

Don't get me wrong. A VIX in the low 30s isn't exactly telling you to back up the truck on stocks, but it isn't predicting the Apocalypse, either. Yeah, we might have another spike, but all the major unknowns are now known.

I strongly encourage every trader to do her own analysis of volatility. It can teach you a lot about what volatility indicators can and can't do. Maybe it will lead you to your own vol indicator that beats both historical and implied!

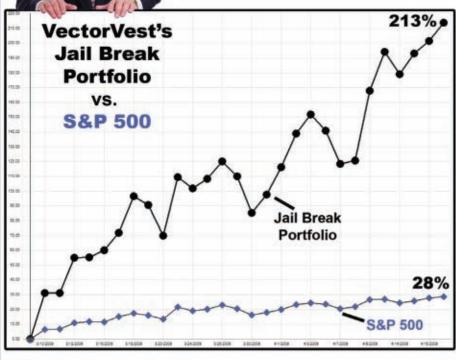
The views in the section above are those of a thinkorswim employee, but may not necessarily be those of thinkorswim, Inc. and are not intended to be specific investment advice.

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#### **TOS News+Views**

A hodgepodge of stuff that matters to you (or so we think)

#### **Toys for TOS** New treats

Spreads for Futures Options

for swimmers

• They're finally here! For now, it's spreads for single expirations such as verticals, iron condors, butterflies, and so on. But we expect to expand that to intermonth spreads as well.

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• Get fast access to your favorite actions. Buy or sell market orders, cancel all orders or just buys or sells, flatten a position, or reverse it to the other direction.

#### Flex Grids on Charts & Trade Page

• You can now adjust the horizontal and vertical size of your windows and customize the way you organize your data. Just click on the little "wrench" icon in the upper right-hand corner to activate the flex controls. INDUSTRY SPOTLIGHT

IS Green

the Next

Gold?

•

You want irony? Try this: Companies developing "green" energy sources like wind and solar power were going gangbusters last year when gasoline was north of \$4 a gallon. And now, with gas back to around \$2 a gallon, a buddy of mine working on a cool new application of photovoltaics just got laid off, Ouch, Remember when ESLR was a \$10 stock? Or when SOLF was \$15? Yeah, me too. Although the moral

arguments abound, the excitement about green energy seems directly proportional to the price of gas.

That's one of the reasons why investing in green is so tough. You not only have to try to figure out whether the science and business plan of the next "big idea" makes sense: you're also making a bet on the price of oil (pairs trade anyone?). Whether or not consumers will adopt green technology and buy greener products depends heavily on how much pain they feel filling up their cars and heating their homes. In other words, for most, it's about saving a buck, not the world.

Now, that's not to say that green energy stocks and companies won't be profitable. There are still some big projects in the works that are boosting the prices of those aforementioned stocks, which is going to be the key going forward. The green industry will make you money when it's a real industry, not when it's still in the "development" To catch up on all the new TOS toys and gadgets, go to our Release Notes archives at thinkorswim.com > Support > Software Support. Select the link at the top: "Looking for Release Notes."

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fun, but just like drug companies and biotechs, it's a crapshoot. Trying to find the winning stock is tough and risky. Last vear, we saw a glimpse of what is likely to come when the concept of "peak oil" actually becomes a reality, and the products of green companies become more viable. It's more likely that when gas stays above \$5, greenies will have their day. Then when the technology and business is established, oil can do whatever it wants. The hard part is waiting.

the development

stage is exciting and

SAVE THE MONKEY! THINKMONEY ISN'T YOUR GRANDMA'S FINANCIAL MAGAZINE. UNLESS, OF COURSE, YOUR GRANDMA WAS A ROLLER DERBY QUEEN. JUST TO MAKE SURE THAT WE'RE HITTING THE BUTTONS THAT WE INTEND TO, WE ASK THAT YOU FILL OUT A SHORT ONLINE SURVEY. IT'S PAINLESS, BUT UNLESS WE GET 10,000 RESPONSES, THE MONKEY GETS IT. PLEASE GO TO WWW.THINKORSWIM.COM/SURVEY



#### Top Five **Favorite TOS** Customers

Hey, if we can't laugh at ourselves, then who?

**BEACHED WHALE:** When 7 figures gets whittled down to 7 cents, you can watch him go through the five levels of grief between the open and close.

**LUSTY SENIOR:** Does it really take 15 minutes to give a female on the TOS trade desk a QQQQ vertical order?

**\$500 GENIUS:** Tiny account. Huge sense of self. Is convinced that the 17-leg inter-market spread he wants a floor quote for is going to turn him into the next Ken Griffin.

**LOOKY-LOU:** Promises to fund account as soon as he fully understands the Analyze page...then multi-leg conditional orders...then early exercise...then....

NATURALIZED CITIZEN: Unbounded enthusiasm for trading in broken English as he fires in orders at 2,000 words per minute.

#### **TOS TOYS** COMING SOON

Scans on technical indicators and studies

- Rulesbased order routing
- Trade futures in IRA
- Risk graph position overlays.
- More features on iPhone app
- Price by volume charts

#### **Pot Shots**

Our Traders' Rating of Regular Potato Chip **Alternatives** 

#### KEY:

2 Buy Tickets =

1 Buy Ticket =

1 Sell Ticket =

2 Sell Tickets =

Hard to beat a familiar flavor in uncertain times.

#### Sour Cream 'n Onion





and dippable! A hit both in theory and practice.

#### **Pork Rinds**





Salty, fatty, porky, eat this?

#### Anything with Seaweed





C'mon, really? Didn't we fight wars so we wouldn't have to

#### **BBQ**





The only downside is the often vicious rivalry with the "regular" crowd.

#### **Beet Chips**





These should be banned if there is any sense of honor left in this nation.



Lunch with...

# Timothy Geithner (On You)

(Not necessarily) a real interview with a market VIP

Illustration by Evonrude

TG: Dude, this new job is so

#### TOS: **Hi, Tim! How's the** Treasury treating you?

sweet. Everybody finally knows who I am! When's the last time anyone outside of Larry Summers could name the Treasury Secretary? And that TARP money? It's better than—well, you know. I dangle a few billion in front of one of these big-shot bank CEOs and he's begging like a dog! Serves them right for not hiring me when they had the chance.

#### TOS: **Do I detect a little bitterness?**

TG: Hey, they thought they could kick me around when I was the Fed Governor of NY. No more, babe. I'm bigger than any of them now.

#### TOS: But there's still some controversy about your appointment...

TG: I didn't touch her!

TOS: What?

TG: Umm...nothing...

#### TOS: There was the issue of unpaid

TG: What. WHAT?! What's the big deal? So I forget to pay a few thousand bucks...

#### TOS: Wasn't it about 35?

TG: Yeah, and that's like point oh-oh-oh-ohoh-oh-oh 1 percent of the Federal budget. Like the economy would fail without my taxes. Please, 35 grand. What's that? Like a couple toilets or something? You know how much the government pays for toilets? The world will collapse if Uncle Sam doesn't get a

couple new toilets? I'm sorry, but I have more faith in America than that.

#### TOS: Some of your critics have suggested that you're not quite up to the task of saving American finance.

TG: Dude, dude—I have big plans. You'll see. I'm going to boost the value of the dollar by putting pictures of celebrities on C-notes. Ben Franklin just doesn't have the marketing oomph that an Angelina Jolie does. Or heck, Brad Pitt, for that matter. The Chinese love Brad Pitt.

And then I'll have a jobs program to rebuild the Arctic Ice Shelf! It's "green," which Barack and Michelle love. Unemployment will go to zero. Polar bear populations will go through the roof. Conservatives will love it. Liberals will love it. I'm a genius. Can you say "Geithner 2016"?

#### TOS: President?

tomers.

had PhDs! REAL

TOS: We try to

do not manage

TOS: Our cus-

and keep it.

their risk.

agement.

PhDs!

TG: It's possible. And fundraising would be a snap. All those guys at AIG whose bonus checks I signed owe me big time.

#### TOS: Speaking of AIG, how's your option trading going?

TG: Whoa! Derivatives! Boo! Hiss! Don't you know those things are toxic?

that one. Who do you think is going to pay for the bailout? The Tooth Fairy? It's going to be higher taxes for everyone, babe. Except me, of course ... heh heh.

#### TOS: **So, the profitable retail traders** and investors will be bailing out the traders at the banks? Doesn't sound

TG: Life's not fair. Look at Barack's ears.

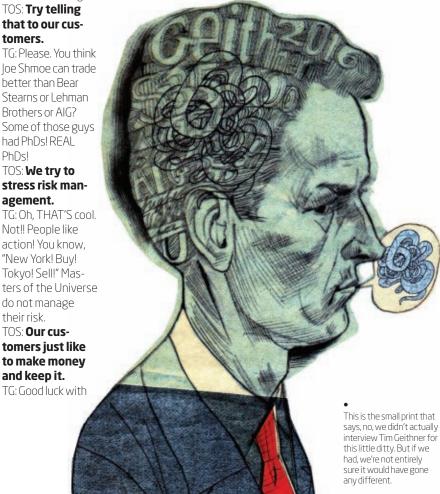
#### TOS: Ouch. He might be reading this, you know.

TG: Eh, he's a pussycat. As long as he gets the occasional pick-up game, he's fine. Michelle, on the other hand. Whoo-eee. No need to waterboard the terrorists. Just a minute with her and they'll be singing "God Bless America."

#### TOS: On that note, I should be going.

TG: Oh, hey-You've got this one, right? I'll get the next one.

TOS: **No problem, Tim.** 



# 23

#### The Fearless Technician

When technical analysis meets random walk

#### I Got Your Market Direction Right Here

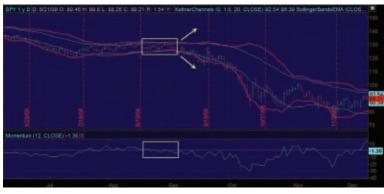
Using channel indicators to set a trap for an unwary market.



• I know it's a shock to some, but markets never move straight up or

straight down forever. A market can rip higher for sure, and squash anyone betting against that move—but at some point, it will have to rest and consolidate. Take a breather. Chill. And that's the time to pounce. Does a lion chase down a full-size adult water buffalo, or go after the newborn calf, limping near the river? Exactly. To find a market that is limping, I use Bollinger Bands and Keltner Channels at their default settings on TOS Chart (shown here). For those not familiar with either indicator, think of them as visual gauge of a stock's volatility, without getting into rocket science. Beauty is in the eye of the beholder here.

Words by John F. Carter



**MATCH MADE IN HEAVEN:** You can spot low-volatility, "limping" opportunities using default settings in your TOS charts.

#### **Setting Up the Trade**

In your TOS settings, check "hide plot" on the MidLine and Avg respectively to clean things up a little. Then sit back and start looking for markets that are experiencing this specific phenomenon: Their price action has gotten so quiet that the Bollinger Bands are actually trading inside of the Keltner Channels—i.e., the markets are literally limping along.

Once this action has been happening for at least six bars, I take action. If I'm trading an equity or commodity, I bracket the order (place buy stops one tick above the price action of the prior six bars and sells stops below). Then I wait for the markets to start moving again—when the Bollinger Bands pop back outside of the Keltner Channels.

When one of the orders is hit, I leave the other order in as the stop loss. My first target is the width of the box. If that is hit, I move up my stop and use discretionary tools to manage the last half of the trade. If I'm trading options and the volatility favors buying, I throw on a straddle. The trade is valid as long as the Bollinger Bands are staying outside the Keltner Channels.

#### **Taking the Pounce**

Once I see the market start to limp, I just set a trap and wait. There's no need to spend time wondering about which direction it will move next. This decision saves a lot of time. I don't watch financial news channels during the day trying to stay caught up on every latest sound bite. In the end, it doesn't matter why a market is moving—nobody really has a clue, anyway. It's going to move one way or another, and once the trap is set, there is nothing to do but wait. If you prefer focusing on market direction, add a 12-period momentum oscillator. When the Bollinger Bands pop back outside the Keltner Channels and momentum is above

zero, it's most likely going to go higher—and vice versa.

This setup is fine for multiple time frames, and I use it on individual stocks and ETFs as well as futures contracts. For day trading, a 5-or 15-minute chart works great. For shorter-term swing trades, I like the 60- and 120-minute charts. For longer-term swing and position trades, I utilize daily, weekly, and monthly charts. As I'm writing this in April 2009, the monthly chart of gold has just entered into one of these limping periods. By the time this article comes out, it may still be limping along. But at some point, the Bollinger Bands are going to pop back outside the Keltner Channels and we could get a heckuva move in gold. Which way? Who cares.

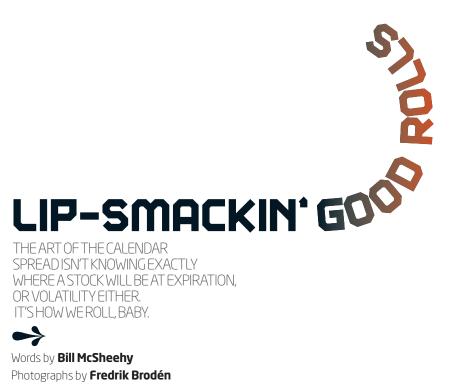
A trader can waste a lot of time chasing the "adult water buffalo" moves and even get gored in the process. Or he can take a cue from the lion and go after the easy prey. The key is to wait for the market to start limping, and then it's just a matter of tapping a few keys on the keyboard to set a trap.

**John Carter** is president of www.tradethemarkets.com. He can be reached at jcarter@tradethemarkets.com.

The information contained in this article is not intended to be investment advice and is for illustrative purposes only. Multiple option strategies such as those discussed in this article will have additional costs due to the additional strikes traded. Be sure to understand all risks involved with each strategy, including commission costs, before attempting to place any trade. Be aware that assignment on short option strategies discussed in this article could lead to unwanted long or short positions on the underlying security. Customers must consider all relevant risk factors, including their own personal financial situation, before trading. Options involve risk and are not suitable for all investors. A copy of Characteristics and Risks of Standardized Options can be obtained by contacting Scott Garland at 773.435.3270 or 600 W. Chicago Ave., Suite 100, Chicago, IL 60654...

#### **Strategy**

thinkorswim.com





Photographs by Fredrik Brodén



26

#### Strategy

thinkorswim.com

To TRADING CALENDAR

This about the rolls, not volatility. Okay, that might

This hit, but you have to understand that rol

This about the rolls, not volatility. Okay, that might

This hit, but you have to understand that rol

This about the trade.

spreads, it's about the rolls, not volatility. Okay, that might be overstating it a bit, but you have to understand that roll values are one of the most important aspects of trading calendar spreads and what can make or break the trade. This article is going to show you what roll values are, why they're so important, and consequently, why calendar spreads can be robust—how they can take a licking without you getting licked too bad yourself. And it will show you why you should consider them as a core strategy in the type of market that we're experiencing in 2009. Let's start with the basics.

#### **Calendar Recap (and the Rolling Part)**

A calendar spread is made up of a short option in a near-term expiration and a long option in a longer-term expiration at the same strike price as the short option. For example, let's say a long XYZ July/September put calendar spread is selling a July 50 put and buying a September 50 put. You sell the near-term option to generate time decay, and you buy the longer-term option as a hedge against the short naked option. The idea is that the extrinsic value (time value) of the short option drops faster than the extrinsic value of the long option, because time decay impacts the near-term option more than the longer-term one. The extrinsic value of both options will drop, but the front month option's will drop faster. That's the nature of time decay, or theta.

What about intrinsic value? That changes, too. But because the front- and back-month options have the same strike price, their intrinsic value is the same. When the intrinsic value of the short front-month option goes up, so does the intrinsic value of the long back-month option. They offset each other and have no impact on the calendar spread.

Here's the roll: As time passes, and the short frontmonth option drops in value, you buy it back and sell the same strike option in the next expiration month. This generates a credit. Why? If the strike price is equal, an option with more time to expiration has higher extrinsic value than an option with less time to expiration. If you buy back the option with lower extrinsic value and sell the option with higher extrinsic value, that generates a credit. And it's that credit that makes up the profit on a calendar spread. The more you get for the rolls, the more you can make on a calendar. The key, then, is to maximize the roll values. To do that, you need to look at the three factors that influence the extrinsic values of the two options in the calendar: time to expiration, how close the stock or index is to the strike price of the option, and volatility.

#### **The Three Amigos**

The closer to expiration you buy that short front-month option back, the less extrinsic value it has. That's good, but there's also risk. The positive time decay on that short option is really high at expiration, but so is the negative gamma—which leads to the next point.

At any time, a roll value is highest when the stock or index is closest to the strike price of the options. The extrinsic value of the options is highest when the stock is right at the strike price, and it drops off the further the stock moves up or down away from the strike. The same is true of the roll value. What causes it to drop? It's that negative gamma. The greater the negative gamma (read "the closer to expiration") of the calendar, the more it loses value if the stock moves away from the strike. Too far puts both options either far out of the money or deep in the money. In both of those scenarios, the extrinsic values of both options is near zero. That's fine for the front-month option you're short, but terrible for the long back-month option. To be profitable, the calendar spread wants that back-month option to have as much extrinsic value as possible. And that's hard to do if the stock isn't close to the strike price of the option.

Look at a SPY put calendar spread (on 5/11/09), where the short front month option has 3 days to expiration and the back month option has 38 days to expiration. With volatility at about 33% and the stock exactly at the strike price of the options, the roll is worth about \$2.50. With the SPY 1.00 point higher than the strike, the roll is worth about \$2.40. But with the stock 5.00 points higher than the strike, the roll is worth only about \$1.80. With the stock 10.00 points higher, the roll is worth only about \$0.80.

So, while you're happily watching your roll values increase as you get closer to expiration, that short gamma is getting bigger and bigger. And if the stock moves dramatically away from the strike on expiration, you can kiss a lot of that roll value goodbye. If the stock is close to the strike price in the last week of expiration, I'm inclined to roll the calendar. I don't like to have too much short gamma in





Wanna learn how to price out rolls with TOS software? Watch the video at: thinkorswim. com/thinkMoney the position, even though it is a defined-risk position.

Finally, volatility impacts the extrinsic values also. An option with more time to expiration has a higher vega (sensitivity to changes in implied volatility). If volatility goes up in both expiration months, the roll value increases as well. If vol drops, the roll drops, too.

Going back to the SPY put calendar, with the SPY right at the strike price, the roll is \$2.50. If implied vol rises in both months by 5 points, the roll will be worth about \$2.90. If vol drops by 5 points, the roll will be worth about \$2.10.

THE BEAUTY

CALENDAR

**SPREAD IS** 

**REALLY NO** 

THAT THERE'S

"WRONG TIME"

TO BE TRAD-

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AND VOL

DOESN'T

EITHER.

HAVE TO BE

**JUST RIGHT** 

OF THE

Now, if the volatility changes in the different expiration months by different amounts (i.e., front-month vol rises or falls more than the back-month vol, or vice versa), that can hurt or help the roll. But don't get too carried away with the "sell high front month/buy low back month" volatility in calendars, expecting the front vol to drop more or the back vol to rise more, thus increasing the roll value. The high front-month vol is telling you something: a huge move in the stock is possible, maybe even likely. When the roll value is maximized with stock right at the strike price of the short option at expiration, or at least close to it, a big move in the stock can drive the price away from the short strike, pushing down the calendar spread. In these cases, even if the vol of the front month does drop sharply, and the back month less so, the trade can lose money if the stock is far away from the strike price. Keep in mind also that even if the front-month vol drops more than the backmonth vol, the back-month option has higher vega. A smaller drop in the back-month vol can cause that option to lose more than the short front option makes when its vol drops by a larger amount. But compared to how close the stock is to the strike, the impact of changes in volatility is relatively small.

#### How Much for That Roll There?

Back when I first started trading, I watched the roll orders as they came into the pit and were quoted. I got a feel for how much they were worth with the bonds trading here and vol there and this much time to expiration. But you don't have trade on the floor to figure it out. One of the most useful features on thinkorswim is the Theo Pricing tool on the Trade page. In fact, it's the fastest way I know to estimate roll values.

To estimate roll values, you need to know what you can buy the short option back for and what you can sell that next month's option for. I say *estimate* because you never know what the roll value will be with absolute certainty. You don't know where the stock or volatility will

be on the date you do the roll. With a calendar, you know what the max loss can be—the debit you paid for it. But the profit on a calendar is an educated guess.

The way to evaluate multiple-month calendars where there is more than one month between the expirations of the short front-month and long back-month options is to divide the price of the calendar by the number of months or "rolls" it has. Each expiration in that calendar presents an opportunity to roll the short option to the next expiration. Dividing the price of the calendar by the number of months lets you compare what each month of that calendar is costing you with the potential credit for the one-month roll.

For example, if you are looking at an XYZ July/Sep calendar for a 1.20 debit, it has two rolls in it (July to August and August to September). Divide 1.20 by two and see that each month of the calendar is costing you 0.60. If you see through stress-testing the roll values that the max roll value is only 0.60, forget that trade. I like to see the potential roll value to be about 50% more (in this case 0.90) than the cost of the one-month calendar.

#### **A Tasty Finish**

What types of markets do calendars work best in? Now that you've seen that vol is less important than where the stock is relative to the strike of the calendar, whether volatility is relatively high or low doesn't matter quite as much as you'd think. Sure, if I buy a calendar spread and vol rises, that helps, but it won't make a losing calendar profitable when the stock or index is far away from the strike.

On the other hand, even if the stock or index just hovers near the strike for weeks, driving vol lower, the calendar can still be profitable. That's why with the VIX twice as high as it was a year ago, I'm still trading calendars. What I look for are stocks or indexes that don't have a lot of news or events coming up that could drive them away from the strike of the calendar. I use slightly out-of-the-money put calendars as a trade with a small bearish bias. If I'm right and the stock or index drops a bit, my roll value grows and maybe vol even rises to help out. But even if the stock stays the same, the roll values are still large enough to offset a significant amount of the risk of the calendar.

The beauty of the calendar spread is that there's really no "wrong time" to be trading them. And vol doesn't have to be just right to trade them either. Think of vol as merely the side dish—the roll is your entree. Focus on your rolls, and you'll be smackin' your lips like Uncle Louie at a Thanksgiving dinner. Just don't fall for pulling his finger.

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**Analysis** 

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Photograph by **Fredrik Brodén** 

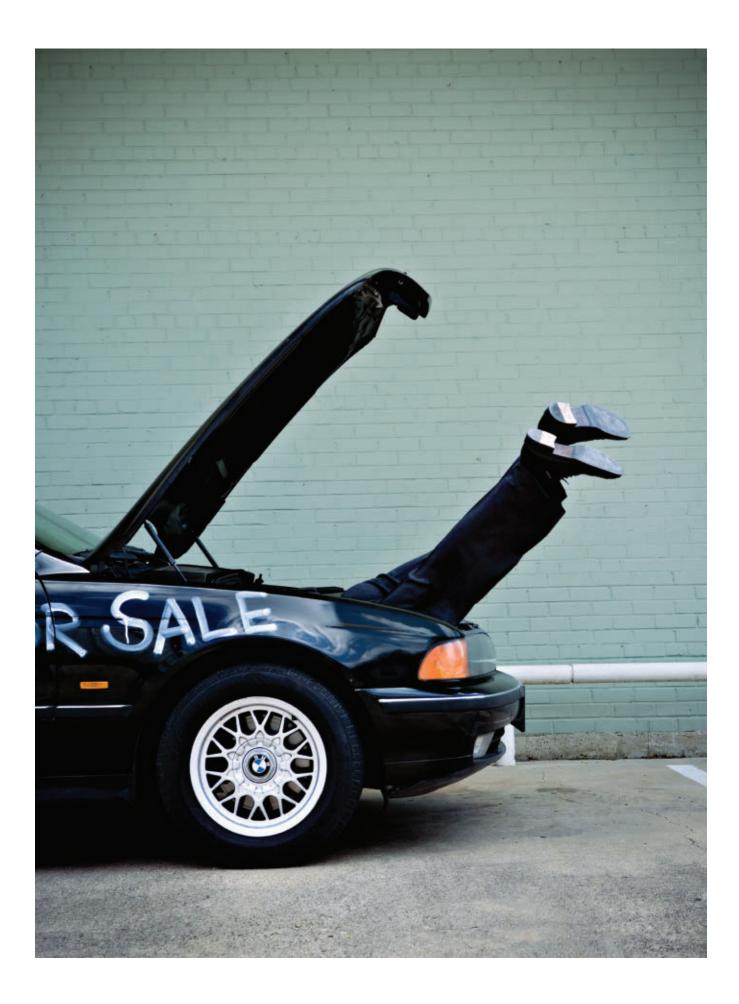
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# SHUKER SHUKER SHUKER

THE AVERAGE TRADER TYPICALLY LOOKS AT CALLS, PUTS, AND SPREADS WITHOUT CONSIDERATION TO HOW THEY FIT WITH OTHER OPTIONS. TAKING A DEEPER LOOK UNDER THE HOOD BY UNDERSTANDING HOW OPTIONS RELATE TO ONE ANOTHER WILL KEEP YOU FROM MAKING SOME COSTLY MISTAKES.

words by **Thomas Preston** 



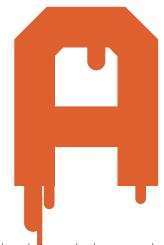
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Photograph by **Fredrik Brodén** 

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For an extended discussion on option relation-ships made easy, go to thinkorswim.com/thinkmoney.



little bit of knowledge can be dangerous when it comes to trading. All too often, I've seen retail traders who took a few option classes, maybe read a few books, and thought they had spotted some money just lying on the proverbial table, left there by incautious market makers. They strapped on the "can't lose" position a little too big, and got slammed when a detail about the trade emerged that the market makers knew, but that the beginning traders didn't. I hate to see that. Understanding the relationships that exist between options can be vital to preventing the same costly mistakes so many retail traders have made when they thought they saw something too good to be true.

#### I'LL TAKE A COMBO, PLEASE

Each option for a particular underlying security relates to every other option in one of three ways: put-call parity (between same strikes), boxes (between different strikes) and "jelly" rolls (between different expirations). The best way to view these relationships is by looking at the synthetic stock, or the "combo." A long combo is long a call and short a put at the same strike price and expiration. A short combo is short a call and long a put. The combo changes point for point with the stock price, which is why it's synthetic stock.

The difference between the combo and the stock most often has to do with the cost of carry (see "Capiche?", *thinkMoney*/04). What's important to understand for this discussion is that combos are used to understand the three relationships: put-call parity, boxes, and jelly rolls.

#### **PUT-CALL PARITY**

Put-call parity describes how a call and put at each strike are related. Look at this formula:

Call price - put price + strike price = Stock price + the cost of carry

Cost of carry refers to any net interest cost (or gain) that comes when you buy the stock, which has its own formula:

#### Cost of carry = days to expiration/360 x interest rate x strike price - dividends

Now, that may look complex. But it's actually quite simple when stripped down to its shorts. You buy the stock, and you spend cash, which means you either borrow money and are charged interest or you reduce your cash and stop earning interest on it. You also are entitled to any dividends payable when you own the stock. But, wait! There's a typo! The formula uses the strike price, not the stock price! Ahh, good catch, but the formula is correct as written.

This position is called a conversion, and it buys the stock and sells the combo (sells the call and buys the put) based entirely on put-call parity. If I buy actual stock and sell synthetic stock, I will have a position that is not sensitive to changes in the stock price. In that sense, the position is "flat." But the net amount of cash I spend on the trade is based on the price I pay for the stock, the cash taken in by selling the call, and the cash spent buying the put. That net amount comes very close to the strike price, which is why the cost of carry uses the strike price, not the stock price.

Let's look at AAPL, for example. With AAPL, which doesn't pay dividends, at \$120.50, the 120 call with 25 days to expiration was 6.80. What's the 120 put worth?

First, the cost of carry equals 25/360 X .25% (current Fed funds rate) X 120 = 0.02.

Then, 6.80 - put price + 120 = 120.50 + 0.02.

#### Therefore, put price = 6.28.

When the bid/ask on the 120 calls was 6.75 – 6.85, the bid/ask on the 120 puts was 6.25 – 6.30, which is wrapped around 6.80. Hey! Put-call parity works!

Caveat emptor: Under certain circumstances, put-call parity doesn't work, and you could be lured into thinking you've ingeniously uncovered an arb situation that a market maker missed somehow. Take a look at Citicorp (C), which was trading at \$2.94 recently. At one point, the three calls with 25 days to expiration were 0.36-0.37, and the three puts were 0.60-0.62. Citigroup doesn't pay a dividend anymore, so the cost of carry is  $25/360 \times 0.25\% \times 3 = 0.0005$ —almost nothing. Let's see here, 0.037-0.62+3=2.94-0.0005. Wait a second. No, it doesn't. Hey! The combo is 0.20 too cheap! There's an arb! I'm a genius! I can short the stock and buy the combo, hang on until expiration, and that 0.20 is mine! Slow down, Sparky.

Put-call parity doesn't work in C options at this point because C is really, really hard to borrow. You think Citigroup is going out of business? Join the club. But you can't short the stock. Instead, you can buy puts, sell calls, or sell

the combo. Put-call parity doesn't matter because of the particular situation that C is in. Market makers know that, and you'd better, too. If you were to try to sell the stock short and buy that combo, you probably couldn't sell the stock because it's too hard to borrow, and if you bought the combo, you'd probably be assigned immediately on the short put. If you couldn't short the stock and you get long stock from the put assignment, you're not locking in anything—you're just long a bunch of C that you might not want.

#### THE BOX

So, if put-call parity ties the same strike call and put together, the box spread ties options together from one strike to another. A box is long the combo at one strike and short it at another strike. It doesn't have much sensitivity to changes in the stock price, because it's both long and short synthetic stock. At expiration, a box will be worth the difference between the strikes.

Back to AAPL. With 25 days to expiration, the 120 call is worth 6.80 and the 120 put is 6.28; the 115 call is worth 9.70 and the 115 put is 4.17. If I sell the 120 call for 6.80, buy the 120 put for 6.28, buy the 115 call for 9.70, and sell the 115 put for 4.18, I would spend 5.00. The box is trading where it should be.

So, understanding that, you look at a few boxes out there and notice right before a quarterly expiration that a SPY 78/80 box is \$2.30 bid with the SPY at \$79. Hey! If I sell that box at \$2.30, and it's going to be worth \$2.00 at expiration, I can lock in that 0.30 as profit. The genius is back! You sell the 78 call, buy the 78 put, buy the 80 call, and sell the 80 put, and go to bed proud of yourself. The next morning, you fire up the thinkorswim trading platform, and you see that you're short SPY shares. Hmm...how'd that happen? You then see you've been assigned on the short 78 calls.

What you didn't know is that the SPY pays a dividend quarterly, and goes ex-dividend at each quarterly expiration. A trader who's long an in-the-money call may exercise that call to get long stock as of the ex-date, and be eligible to receive the dividend. You're short stock on the ex-date, so you have to pay the dividend. No worries, you think, the dividend I pay will be offset by the 0.30 credit I sold the box over parity for. So, how much is the dividend? \$0.50. Sorry, Charlie, you lose \$20 for each box you sold. And because you thought it was such a steal, you sold a pile of them, and losing a big pile of twenties can take you out of business. Don't let that happen to you.

#### THE JELLY ROLL

Finally, options at different expirations are tied together by what I call the "jelly roll" to distinguish it from the "roll" that you'd do in calendar spreads (see "Lip-Smackin' Good Rolls" in this issue). A jelly roll is long a combo in one expiration and short a combo in another expiration. And the

value of synthetic stock in one month and synthetic stock in another has to do with the cost of carry for the amount of time between expirations.

Going back to AAPL, the combo with 25 days to expiration is about 120.47 at the 120 strike (6.75 for the 120 call – 6.28 for the 120 put + 120 for the strike price). But the combo with 60 days to expiration is about 120.50 (10.00 for the 120 call – 9.50 for the 120 put + 120 for the strike price). If you look at the cost of carry for the difference between the expirations:

#### 35/360 X 120 X .0025 = \$.029

That's approximately the difference between the price of the synthetic stock in the first expiration and the synthetic stock in the second. Jelly rolls never really get out of line, unless, of course, there's something that only savvy traders know.

A dividend coming in between the expirations can make the jelly roll look like a good deal when it really isn't, but even worse is something like the VIX options (see the VIX Special in thinkMoney/05 for details). In the early fall of 2008, the back-month VIX combos were trading much lower than the front-month combos. If you didn't understand the peculiarities of VIX options, you might have sold the front month and bought the back month thinking it was cheap compared to some theoretical carry charge. But when the market crashed, the front-month VIX combos skyrocketed. The back-month combos went higher, but the spread between them doubled and even tripled. Some retail accounts were slaughtered by that trade.

A good rule of thumb trading options is if something looks too good to be true (i.e., "free money"), chances are, it is. Being a savvy trader, you can not only avoid being suckered by these types of trades, but now you can understand how they work. And once that happens, you're not going to be suckered again.

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#### **Gear Head**

Cool things to do with what we've got.

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#### thinkBack

thinkBack's new p/l graph incorporates the profit and loss from your simulated thinkBack trade right on top of the price chart of the underlying. This way, you can see how the p/l changed as the stock or index price changed. Why do this? It's a handy way to see how option positions, no matter how simple or complex, behaved in past market environments. Learn how an iron condor performed day-to-day when the VIX was in the teens and the market was drifting higher. Learn how a short straddle in AMZN worked before, during, and after an earnings announcement.

Want to see how that short SPY put spread would have worked last fall? Type SPY in the symbol field on thinkBack and set the date to September 30, 2008. You'll see historical quotes for the options that were trading at that time, including October 2008, November 2008, and December 2008 expirations, as well as a price chart for the SPY. You then click on the Nov 08 expiration, rightclick on the bid or ask price of the 109 put, and select "Sell," then "Vertical." The simulated short 108/109 put vertical trade will appear in the "BackTrades" section. You'll also see a yellow line on the price chart, which is the p/I of that position. The p/I line begins on the thinkBack date you created the simulated trade and ends either on the expiration date of the trade or the current date, whichever is first, thinkBack trades are saved on your computer, so they'll remain even if you close the thinkorswim software.



**FIGURE 1: thinkBack** Place your cursor on any date to get your p/l of the theoretical trade.



**FIGURE 2: MyTrade** Trade with the crowd. Just copy trades others have posted, paste them to the clipboard, and trade them from your own account—all in three steps.

### Time Machines & Social Trading

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Chart your ideas back in time and share your brilliance with the world—one trade at a time.

#### MyTrade

Perhaps one of the sleeping giants of the TOS toys collection is the MyTrade feature (Figure 2), which lets clients create a trading community on the TOS platform. What makes MyTrade really useful is the ability to get notified on Twitter when someone posts a trade, see what other traders are doing right now, read their commentary about trades, then copy and paste the trade right into the TOS order entry panel. When you create an order on thinkorswim, you have the choice to "Share It on MyTrade" in the order confirmation box before you route it. If you do, the order pops up on MyTrade under your MyTrade name, and other TOS traders can see the trade and enter it if they want.



To learn all about all the latest new TOS toys, go to our archived Release Notes at **thinkor swim.com**, then follow the path to Support > Software Support.

This is particularly useful for traders who are working as a group to share ideas and learn from each other's successes and failures. The community can have everyone sign up on MyTrade and Twitter, watch in real time as the members route orders, and post comments.

Another
MyTrade/Twitter
user would be a
trade advisor who's
looking for a fast,
efficient way to let
subscribers know
what the latest trade
is. You can write up
the rationale for the
trade, as well as max
profit, max loss, and
breakeven points.
Then folks can read

it all at the same time they see the order. The near-instantaneous messaging is helpful if your advisory trades around news events or day trades.

Those are just two useful ideas for MyTrade. But with thousands of MyTrade participants, customers are sure to find other ways of using the tools. Feel free to share them with us!

The views in the section above are those of a thinkorswim employee, but may not necessarily be those of thinkorswim, Inc. and are not intended to be specific investment advice.

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#### **Hey Monkey!**

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Got a question about anything? Ask Monkey, our resident primate.

Illustration by **Tania Kaufmann** 



#### Q: Hey Monkey, Grandpa was scaring me with stories about the uptick rules. Wassup with dat?

A: Don't you just love grandparents? Always demanding the best bananas all year, which you give them willingly, then stiffing you at Christmas and giving the stocking full of cash to your miserable cousin from the Congo who only shows for the holidays?

Our valiant securities and trading regulators saw the nasty volatility last year and figured you and I needed a bit more

protection from the evil short sellers. If you were trading two years ago, you'll remember that you couldn't short stock unless the price was an uptick. An uptick is when the last trade price is higher than the previous trade price, or the same as the previous trade price if the previous price was an uptick. Presumably, that put some brakes on the short sellers to keep them from driving a stock lower and lower, and driving good, hard-working American investors into oblivion. That was the law since 1938, then it was suspended in 2007, and you know what? The financial world didn't fall apart. At least until a bunch of knuckleheads figured they didn't need to hedge their short mortgage puts. So, they're kicking around the idea of reinstituting the uptick rule for shortselling stock and getting America back on track. Hoo-rah!

# Q: Hey Monkey! I'm throwing a monkey-themed party. Which should I have running on the plasma, King Kong or Planet of the Apes?

A: Oh God, how predictable. I mean, I don't like thinking too hard myself, but you could come up with something just a bit more subtle than that. Try anything with Kristin Scott

Thomas. I've always thought she had a simian quality about

Q: Hey Monkey, I see you've finally built the ability to route spreads in futures options. What happens with my July emini S&P options at expiration? Do they create a special July future?

**A:** Ah, no, young grasshoppah. There are delicate nuances you must understand. Just like Cain

Our valiant regulators saw the nasty volatility last year and figured you and I needed a bit more protection from the evil short sellers.



For more Monkey business, daily market wraps, and trading ideas, visit the MonkeyBrains blog at thinkorswim.com. Select the top Support tab, then Monkey-Brains Blog.

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had to learn the ways of both East and West, you can learn the details of futures options versus equity options. But it's way easier than carrying that hot thing of coals. See, the futures options deliver a specific futures contract when they expire in the money or, being American-style, are exercised before expiration. For e-mini S&P options, that's the future whose expiration is itself the same or next following the expiration of the option. July options will deliver September futures. August

and September options will, too. October, November, and December options will deliver December futures. Get it?

#### Q: Hey Monkey, do you shave, or are you just balding?

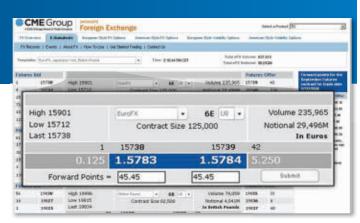
A: Perhaps you don't realize that some of my species are about 8 to 10 times stronger than the beefiest human gym rat. Consider that the next time you want to ask a question, chump.

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**JOHN PERSON** 

Trader and author of Forex Conquered

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**Special Section** Photograph by Fredrik Brodén thinkorswim.com

FOCUS: management

Like a good trader, you've assessed your risk, pulled the trigger, and entered a few trades. But what happens to your basket when the market takes a hit? No good captain wants to believe his ship will sink. But no ship leaves port without a life raft, either.

words by **Thomas Preston** 

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#### Focus

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Photograph by **Fredrik Brodén** 

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### **POP QUIZ:**

Your portfolio is long 500 shares of AAPL, 500 shares of IBM, 500 shares of JPM, 500 shares of MMM, and 500 shares of GOOG. How much risk do you have? And how can you hedge it? To answer that, you need a tool to confidently assess and hedge the risk of your whole portfolio.

Beta weighting is just such a tool that lets you see one risk number for your portfolio. Beta is a number that estimates how much, in percentage terms, a stock will move if the S&P 500 moves 1%. If a stock has a beta of 2.00 and the S&P 500 moves down 1%, theoretically that stock would move down 2%. It measures each stock's sensitivity to changes in the S&P 500. Beta weighting takes each stock's beta and uses it to adjust the delta of a position in that stock, so that the delta also reflects that stock's sensitivity. The delta of a stock with a high beta can present more risk to your portfolio than the delta of a stock with low beta. Beta weighting will adjust the deltas so you can see that. It will give you an indication of how much you can theoretically make or lose if the index you're beta weighting against moves up or down 1.00 point.

#### **Apples to Oranges**

The first thing to understand when beta weighting is that AAPL deltas aren't necessarily equal to IBM deltas, or JPM deltas, or MMM deltas, or GOOG deltas, because each has a different beta. For example, if you have 500 shares of GOOG and 500 shares of JPM, the delta of both of those positions taken by themselves is long +500. If either stock goes up 1.00 point, the position would make \$500. But GOOG is more likely to have a 1.00 point move than JPM. A 1.00 point move represents a 0.25% change in GOOG at \$400, while a 1.00 point move represents a 3% change in JPM at \$30. Larger percentage changes are much less likely than smaller ones, and the price of GOOG is much more likely to change by 1.00 point than JPM.

We can't just add up the individual deltas of the positions in different underlying securities. We need to convert them. To use an analogy, you can't add steaks, chicken wings, and veal piccata together, but if you convert each one of them to pork chops, you can add up the pork chops. What beta weighting does is convert the individual position deltas into a common denominator of your choosing, like the SPY, or SPX, or NDX, for example.

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#### **Create the Hedge**

Using SPY as the common denominator, the TOS beta weighting tool converts the deltas of the individual positions into SPY-equivalent deltas for you. [For a blow-by-blow on how to use the TOS beta weighting tool, refer to "How to Find Your Hedge" on page 38.] The portfolio delta, then, is the sum of the SPY-equivalent deltas. When I beta-weight that portfolio to the SPY, I get a beta-weighted delta of 4,400 SPYs. Theoretically, that portfolio will make or lose \$4,400 if the SPY moves up or down 1.00 point.

#### 1. Sell Stock

If you want to bring those SPY-weighted deltas down to 3,400, what can you do? The first step is to isolate the stock in the portfolio that has the greatest number of beta-weighted deltas. GOOG has the largest number of SPY-weighted deltas (approximately 2,500), and is the greatest contributor to the overall risk of the portfolio. The simplest hedge would be to sell 200 shares of GOOG to bring the total number of SPY beta-weighted deltas down to 3,400. You could also reduce the positions in the other stocks to bring the deltas down even more.

Partially closing a position is simple and reduces the overall risk of the portfolio. Let's say the worst-case scenario happens and all the stocks go to zero. If you had sold some of the stock positions before that happened, the loss would be reduced. The downside to reducing the positions is that you are also giving up potential profits. If the market rallies and takes your stocks higher, a smaller position won't benefit as much. Hang on to your position, and you can make and lose more money. Close some of your positions, and the gains and losses are both reduced.

When you add or overlay positions on your portfolio, you can maintain most of your profit potential while reducing your downside risk. But there's a trade-off to everything, and adding a hedge can actually increase your maximum risk, even though you have reduced your immediate risk.

#### 2. Sell the Index

The next type of hedge would be to sell index futures or SPY shares against the portfolio of long stocks. If I sell short 1,000 shares of SPY, I reduce my overall SPY betaweighted deltas to 3,400, and reduce the theoretical risk across all the stocks—not just one. But I've also increased my max possible risk. Imagine a scenario where the betas break down simultaneously and the prices of all five stocks drop when the SPY rallies. The losses in this case can be huge. It's not likely, but it is theoretically possible, and happens mainly when you choose an hedging index that isn't closely related to the stocks in the portfolio. This can be an effective hedge, but it means you have to monitor that position closely.

#### 3. Buy Puts

Now, how about a hedge that protects the portfolio on the downside, but maintains all or most of the upside profits? This is where options come in. You could use options on the specific stocks, i.e., hedge the GOOG stock position with GOOG options, the AAPL stock position with AAPL options, etc. But that can be time-



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Can't get enough on portfolio management and beta weighting? For a thinkMoney extended discussion, visit thinkorswim.com /thinkmoney consuming to execute. When you're up the creek, you don't want to be carving a paddle out of driftwood. You need a ready-made paddle fast.

Using index and ETF options as a hedge can be more complex because you're actually adding a new product to your portfolio, but you can create a hedge with options in a single underlying, rather than doing many trades in multiple stocks.

A simple index option hedge might be a long out-of-the-money put. Because it has negative delta, the long put would reduce the positive deltas of the underlying position. The delta of the put determines how many you need to reduce the portfolio deltas. For example, you would need to buy 33 SPY options that have a 0.30 delta put to generate short -1,000 SPY deltas. The bigger the delta of the put, the fewer you have to buy as a hedge. You would need to buy only 13.80 delta puts to generate a total of short -1,000 deltas. This also affects commission costs, which increase when you're trading a lot of options.

The upside to a long put is that it is simple to execute, assuming you stick to liquid options, and is pretty easy to understand. And if the market rallies, the max risk on the long put is the price you paid. It preserves most of the upside position of the underlying portfolio. The downside, though, is that it is a wasting asset. If

you buy the put as a hedge and nothing happens, time decay erodes the value of that put, and that reduces the overall performance of the portfolio. Long puts are also long vega, and are sensitive to changes in implied vol, which is something you may not want in a hedge.

#### Spread 'Em

This leads to the next step, which would be a long put vertical or short call vertical (see the cover feature on page 10 for more on the short vertical). Because a vertical is simultaneously long and short an option, its vega can be lower than that of a single long option, and present less risk if volatility drops. They also can be less expensive than a single option, and that means that if the market goes up and benefits your underlying portfolio, the hedge loses less money. The downside to verticals, though, is that you typically need to trade many more of them to get the same delta exposure as a single option. If you wanted to generate short -1,000 deltas with a vertical that has a delta of 0.20, you'd need 50 of them, and because there are two options in a vertical, the commissions are higher as well.



#### **Special Section**

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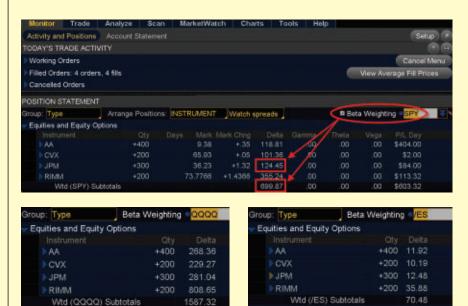
Also, if the market really crashes, the protection a vertical can provide is limited. Because of that, I generally prefer to sell out-of-the-money call verticals than buy out-of-the-money put verticals. The short out-of-the-money call vertical generates positive time decay and can have a high probability of profit considered as a trade on its own. If the market doesn't move much, which it typically doesn't, a short call vertical can enhance the returns as well as provide a partial hedge to the portfolio.

Long out-of-the-money put calendars (also in this issue's cover feature) provide short deltas, some positive time decay, and positive vega. In other words, time passing benefits your trade and the long vega exposure can give the hedge a boost if the market sells off sharply and vol spikes up. If the market grinds higher and crushes vol, that long vega calendar hedge will suffer. The downside of higher contract trades, higher commissions, and limited hedging capacity also apply to long put calendars. But long put calendars, like short call verticals, can have positive time decay and a high probability of successwhich can enhance portfolio returns while they provide a hedge. In both cases, too, if the market goes higher and higher, the cost of that hedge (in vertical or calendar form) is lower to preserve more of the profits of the underlying portfolio.

In practice, you can use a mix of all these techniques. Flexibility is important, because the risk you're comfortable with and the risk the market presents can both change. More risk can mean you want a stronger, though more costly, hedge. If you're less concerned about a crash, you can use options to not only reduce some of the risk, but also provide potential profits over and above those of the underlying portfolio.

#### **How to Find Your Hedge**

Beta weighting with the TOS platform



**FIGURE 1 (top):** Using SPY to beta weight a portfolio of stocks, you can see the equivalent deltas for each stock position as well as the whole basket. **FIGURES 2 & 3 (bottom):** Weighting the same portfolio against the deltas of QQQQ and S&P futures.

port.

To see your beta weighted deltas, first go to the Monitor page, and then the Position Statement section. In the upper right-hand corner

of the Position Statement, look for the words "beta weighting" with a check box next to them. If you check the box, a symbol field will open up. Put your beta weighting index symbol in that field, such as SPY, MNX, or /ES. You'll see the deltas of your positions, as well as the total deltas, converted to the beta-weighted deltas.

You can even create separate groups of stocks, like energy stocks, high-tech stocks, drug stocks, etc., and beta weight those separately to their own index symbols. If you click on the blue dot to the left of a position on the Position Statement, you can choose

to "move to group." You can create a new group and name it anything you want. Then you can move other stocks to that group. When you're done with that, look for the small "wrench" icon on the left-hand side of the group. Click that to open up the betaweight control, and beta-weight the group's deltas with an index, future, or ETF symbol appropriate for the risk of that group.

This feature is also handy to remove certain positions that you want to exclude from the beta weighting. If you have some penny stocks, forex positions, or futures on physical

commodities that really don't have a strong relationship to the rest of your stocks, you can put them in their own group and leave the other stocks of your portfolio for the beta weighted total risk.

If you're going to hedge with futures, keep in mind that some futures don't represent \$1.00 per point like stock does. One point in the e-mini S&P futures, for example, represents \$50. So, /ES has a delta of 50. If you beta weight your portfolio deltas to /ES (Figure 3, page 38) and see the result as +1,000/ES deltas, you wouldn't sell 1,000 futures to get that delta to zero. Rather, you would sell 20 e-mini futures, because  $-20 \times 50 = -1,000$ .

One final tip: never hedge a defined-risk position with an undefined-risk hedge. Yes, you can hedge short put verticals, for example, with futures, but remember that the profit on a short put vertical is as limited as the risk. If the hedge is a short future, the loss on the hedge can far exceed the profit on the option position. If you sell a future to hedge the risk of the short put vertical (because you fear the market might move lower), the future can lose a lot more than the short put vertical can make if the market actually goes back up. So, hedging options with futures can be very risky. It means you have to be willing to be glued to the computer monitor watching the futures.

The information contained in this article is not intended to be investment advice and is for illustrative purposes only. The risk of loss in trading futures can be substantial. Customers must consider all relevant risk factors, including their own personal financial situations, before trading. Trading foreign exchange on margin carries a high level of risk as well as its own unique risk factors. Please read the National Futures Association Understanding the Risks of Trading in the Retail Off-Exchange Foreign Currency Market risk disclosure before considering the trading of www.thinkorswim.com.





#### How is beta calculated?

Beta is calculated by a regression of the percent changes of the stock versus the percent changes of the S&P 500. The betas in TOS are based on longer-term data (five years), which serves to smooth out shortterm changes in the relationship between a stock and the S&P 500. But that's also less helpful for shortterm hedges, when you think the market might make a big, fast move on a Fed announcement, for example. Intraday, the beta numbers may not be accurate. But over the course of a week or so, the beta numbers are

more reliable. Take

that into account.

#### How do I pick an index to use to beta-weight my deltas?

You can beta-weight your portfolio to any stock or index you choose. A good starting point is to betaweight against a broad market index, such as the SPX or SPY, MNX or NDX or QQQQ, IWM or RUT. Pick an index that represents the type of portfolio you have. Is it a big cap, blue chip very liquid and have portfolio? Beta weight against the DJX. Small cap? Try the MNX. If you have a portfolio of energy stocks, you could consider beta-weighting against the XLE, which is the energy

#### If Tdecide to hedge with futures, what should I watch out for?

sector ETF. You can even beta-weight your portfolio to a future, like /ES for the e-mini S&P 500.

#### If hedging with futures or ETFs is so risky, are there any advantages?

would consider hedging the risk of your portfolio with futures or shares of an ETF is that they are very efficient tant economic number is going to be released and you want to cut your risk quickly and for a short while, it's easy to sell some SPY shares or an e-mini S&P 500 future.

E-mini futures and the SPY ETF are nice, tight bid/ask spreads. They also move quickly in response to news. If an announcement is bearish, the SPY will drop immediately, as will the e-mini S&P 500 futures. Your short hedge can move down fast, potentially letting you buy it back for a quick profit.

When you have a hedge like short emini S&P futures, vou can't walk away and forget about it. You have to watch it closely, because if the market starts moving against the hedge part of your position, the losses on the hedge can be greater than the profits on the underlying portfolio. In fact, I like to treat The main reason you the short futures as a separate, bearish directional trade. Yes, it is a hedge, but in the sense that this trade can make money when the and fast. If an impor-rest of my long stock positions lose money. To make money on a directional e-mini trade requires concentration and a solid exit strategy. If that trade starts to go against you, that is, if the market starts to rally, you have to be prepared to cut your losses and and let your underlying portfolio continue to profit. That assumes, of course, that it will be making more money than your hedge is losing. And there's no guarantee of that.

#### Capiche?

Lessons from a veteran floor trader

• I go out and talk to a lot of customers. I love them all. And one question I get a lot is, "Tony. What's with the out-of-the-money stuff? It's out-of-the-money this, out-of-the-money that. You think in-the-money options don't exist?"

Of course I know they exist. What do you think I am? New? What I'm trying to do is help save you a little time, money, and trouble. Yeah, yeah. You hear that all the time. Listen, wise guy, this time it's different.

You say you have a bullish bias on a stock or index, and I suggest to you that you might want to consider selling an out-of-the-money (OTM) put vertical. If you're bearish, you might want to sell an out-of-the-money call vertical. Is there something wrong with trading in-themoney (ITM) verticals? Well, no, and yes.

First, the no. When you sell an OTM put vertical, that's synthetically the same as buying an ITM call vertical at the same strike prices. If you pick your favorite stock XYZ trading at \$90, and sell the Sep 80/85 put vertical by selling a Sep 85 put and buying a Sep 80 put for a net credit of 1.50, that has the same risk/reward as buying the Sep 80/85 call vertical, which is buying a Sep 80 call and selling a Sep 85 call for 3.50 debit. Don't believe me? Think about it—XYZ goes to zero, and the max loss on either spread is the same \$350.XYZ goes to \$100 and the profit on either is \$150. And breakevens? The same—both at \$83.50. That's why I say the short put vertical and the long call vertical are synthetically the same. One's calls and the other's puts. But as far as risk/reward goes, they're the same.

So if they're the same, then how are they different, you ask? It has nothing to do with theory and everything to do with practical

Words by Tony Battista Photograph by Fredrik Brodén



#### **Evil Twin?**

Though identical in theory, in-the-money spreads are not the same as their out-ofthe-money counterparts.

trading, which is what I'm all about. And the difference in "trade-ability" is huge. OTM verticals are easier to trade because they tend to be more liquid and have tighter bid/ask spreads.

OTM options are more liquid because there are more retail traders and investors trading them. They're less expensive than ITM options if you're buying them for speculation, and you can sell the OTM options against your stock position to generate some income. There's just more activity in them all around. That activity translates into tighter bid/ask spreads for the individual options, which translates into tighter markets for the verticals. But the bid/ask spread for those ITM options is usually wider. Why?

First, when volume for an option is lower, market makers keep the bid/ask high, wide, and handsome. Low volume means it's harder to close positions, to trade out of things. And if you are going to have trouble unloading something, you have to give yourself more theoretical edge as a cushion. Second, the inthe-money options have higher deltas, which means they move more when the stock moves

up and down. So, if I sell one of those ITM options and look to trade the stock as a hedge, if I miss that hedge, it's going to cost me on that option. For those reasons, I widen out the bid/ask spreads on the ITM options, and that gets passed through to the verticals and other option spreads.

The wider bid/ask on the ITM vertical means it's harder to get a trade filled with a minimum of slippage, and that's something that I emphasize to all new traders. Keeping slippage low is one way you're going to survive as a trader.

Finally, if you're lucky and your short OTM put vertical is worthless at expiration, that's it. It's done. You keep the credit and move on to the next trade. But the ITM call vertical has a long option that is automatically exercised and a short option that's auto-

matically assigned. That exercise and assignment has a fee attached to it of \$15 per strike. So, that's an extra \$30 you pay to trade the ITM vertical if it turns out to be a winner.

The bottom line is that there's a reason I tell you what I do. Stick with the out-of-themoney options. With the couple of nickels you save on your next trade, you can buy me a cannoli at Gusto's.

The information contained in this article is not intended to be investment advice and is for illustrative purposes only. Multiple option strategies such as those discussed in this article will have additional costs due to the additional strikes traded. Be sure to understand all risks involved with each strategy, including commission costs, before attempting to place any trade. Be aware that assignment on short option strategies discussed in this article could lead to unwanted long or short positions on the underlying security. Customers must consider all relevant risk factors, including their own personal financial situations, before trading. Options involve risk and are not suitable for all investors. A copy of Characteristics and Risks of Standardized Options can be obtained by contacting Scott Garland at 773.435.3270 or 600 W. Chicago Ave., Suite 100, Chicago, IL 60654.



#### Think about your tools.

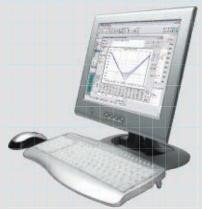
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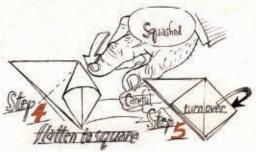
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# Step 2 Step 3



#### The Last Page

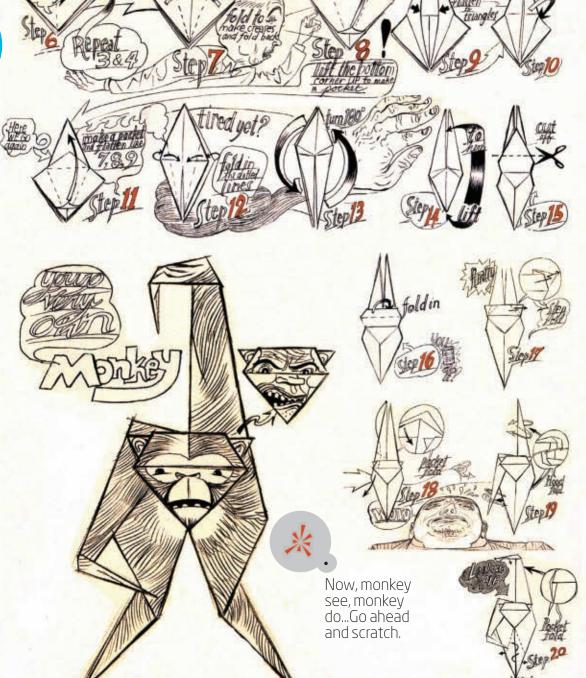
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